# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

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## FRONT MATTER

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#### List of Abbreviations (Thesis and Papers)<sup>1</sup>

ANT Actor-Network Theory

BR 'Being Responsible'

CEO Chief Executive Officer

CBM Commercial Business Model

CoC Commercial Control

CoV Commercial Value

CRS Corporate Responsibility-Sustainability

CR Corporate Responsibility

CS Corporate Sustainability

CSR Corporate Social Responsibility

FTSE Financial Times and the London Stock Exchange

KPI Key Performance Indicator

LSE London Stock Exchange

NBM Normative Business Model

RSC Responsibility-Sustainability Control

RSV Responsibility-Sustainability Value

RQ Research Question

SBM Sustainability Business Model

-

<sup>&</sup>lt;sup>1</sup> This list includes abbreviations of larger relevance to a significant part of the thesis. Abbreviations that are either common knowledge or that were mentioned merely once are not included. Such abbreviations were explained in the text section where they occur. Examples include DNA, GDP or UML.

#### **Abstract**

#### The University of Manchester Oliver Laasch Doctor of Philosophy

## Business Model Change through Embedding Corporate Responsibility-Sustainability? Logics, Devices, Actor Networks

2016

'The Company' had introduced 'Being Responsible' a program for the embedding of responsibility-sustainability. Corporate responsibility-sustainability here describes efforts to address entangled cares of responsibility and sustainability. The program showed potential to change the business model, which led to the research problem: 'How can responsibility-sustainability programs change business models?'

In this thesis, business models are understood as three dynamically interlinked states: Logics, devices and actor networks. Business model change may happen through the embedding of responsibility-sustainability *into* any of these states, and through the dynamics *between* them.

Main conceptual lenses are organizational institutionalism and actor-network theory, which are connected through a social constructionist philosophy. Qualitative methods used include an in-depth case study of The Company (104 interviews with 72 interviewees) and thematic analyses of business model descriptions (devices) of FTSE corporations (100 documents).

Seven papers study distinct aspects of the research problem: Papers 1 and 2 provide a conceptual basis. Papers 3 and 4 study how the embedding of responsibility-sustainability into the FTSE100s' business model devices changed the logics they described. Papers 5-7 study embedding into The Company's business model actor network.

I found how embedding of responsibility-sustainability *into* the three states of commercial business models happened through three processes: Blending of logics, combination of device elements and translation between actors. Such embedding of responsibility-sustainability led to misalignment and tensions between responsibility-sustainability and the dominant commercial logic. This misalignment in turn fueled the dynamics of change *between* logics, devices and actor networks.

First, this thesis contributes to an emerging literature on the dynamics of business model logics, devices and actor networks. It makes explicit the distinction between these states and illustrates how their dynamics provide novel insight into business model change. Secondly, I showcase how actor-network theory may complement the activity systems study of business models as well as stakeholder thinking in responsibility-sustainability research. Insights into how to use devices to change business models and to embed responsibility-sustainability appear relevant for practitioners.

**Keywords:** Business model change, embedding corporate responsibility-sustainability, institutional logics, business model devices, actor network theory

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<sup>&</sup>lt;sup>2</sup> The Company and its program were re-named to preserve their anonymity.

#### **Visual Abstract**

## BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function.' [Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as '*Being Responsible*' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

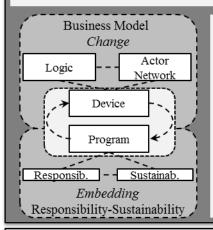
**Preliminary conceptual statement:** Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- Reality constructed by actors
- Unifies lenses: Actor-network theory and institutional logics

#### Actor-network methodology

Follow (human-nonhuman) actors

#### Qualitative methods

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

B. PAPERS			
	L	D	A N
P1:Normative business model	٧	٧	٧
P2:Blending logics	>		
P3: Devices' combination	>	٧	
P4: Inscription- description	٧	ゝ	
P5: Device agency	٧	>	~
P6: Actor network		~	~
P7: Dynamics & change	~	~	~

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- **III. Misalignment-tension-translation-change:** Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

#### Business Model Discussions

- ☐ Dynamic states of business models
- ☐ Institutionalist business model research
- ☐ Emancipation from 'Business-Business Models'
- ☐ Actor-networks versus activity systems?

#### Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- . Embedding and actor network theory
- \* Actor-network theory versus stakeholder theory?
- Textual device constructing organizational reality?

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

#### **Declaration**

I, Oliver Laasch, declare that no portion of the work referred to in the thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

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Large pieces of work, such as this thesis, are never the sole responsibility or merit of an individual. Without the help and support of a number of kind and important people this thesis would have looked very distinctly or it might actually never have come into being at all. First and foremost, I would like to thank my thesis supervisors. There is Sally Randles who trusted me enough to lead me down the marvellous rabbit hole of research on a long leash, but who also wouldn't hesitate to sharply pull that leash when she thought I was wandering off too far. I also would like to thank my co-supervisor, Paul Dewick, on whose judgment I could always rely and who reserved incredible amounts of time for reading all of my silly ideas, to take them seriously and honor them with immensely helpful comments. Philippe Laredo, while not being my official supervisor played an important role in reviewing my progress as a PhD student. He would see the very pragmatic solutions and walkable paths through the exciting PhD chaos. Furthermore, I would like to thank the numerous lecturers, colleagues, co-students, reviewers, editors who have provided me with constant input, shaking up what I considered 'good enough', this way making it better than I could have ever imagined when I began my PhD journey.

I also want to thank the two main organizations embedded into which my research took place. Through the Alliance Manchester Business School's top-ranked PhD program I was trained in research skills by some of the foremost scholars, who in spite of their seniority were still able and who always made sure to translate their deep knowledge into a format accessible for early stage researchers like myself. I am also deeply indebted to the second

site much of this research project took place in. People in The Company (anonymized) were most kind to take me in and made me feel part of the team, particularly in the corporate responsibility and corporate affairs areas. Particularly, The Company's corporate responsibility director showed an amazing support over a period of almost three years. I am most sincerely grateful for their openness and pragmatic approach to doing research with me and for considering my research interest a valid endeavour in spite of the multiple commercial pressures encountered in daily company life.

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#### **About the Author**



After his studies in business, economics and business education at Goethe University in Frankfurt, Oliver Laasch has worked in topic areas related to business sustainability, responsibility and ethics in academic institutions. He was a lecturer and researcher at Seoul National University, and director of the Center for Responsibility and Sustainability (CRSE) at the Monterrey Tec. As manager for a

European Social Fund project, he developed a training program for Responsible Businesses. He also served as academic coordinator for e-learning at the Institute of Corporate Responsibility Management of Steinbeis University Berlin. Oliver is founder of the Center for Responsible Management Education. Currently, he is a Marie Curie Research Fellow at the Manchester Institute of Innovation Research at the University of Manchester. Oliver has accepted an appointment as assistant professor for strategy at The University of Nottingham, China Campus from September 2016 on.

Oliver has published textbooks, cases, chapters, and articles. He is editor of the United Nations PRME book collection, and has worked as coach and consultant with dozens of companies and universities. Oliver has designed and taught a variety of full courses on bachelor, master, PhD and executive education levels, including blended and massive open online courses such as 'Managing Responsibly', 'Innovation for Sustainability', 'Design for Environment', 'Strategic CSR', 'Leadership for Sustainable Development', 'Environmental Economics & Management', 'Social & Cause-Related Marketing', 'Social Entrepreneurship', 'Responsible Business Communication', 'CSR Norms & Institutions', 'Humanistic Business Models' and 'Sustainable Lifestyles'.

Oliver won the 2014 best professional development workshop award of the Academy of Management's Management Education and Development Division and the 2016 best paper award of the Social Issues in Management Division. His textbook 'Principles of Responsible Management' was reviewed and commended in Academy of Management Learning and Education in the same year. Oliver received a '100 Most Talented Sustainability Leaders Citation' by The World CSR Day 2014, a Marie Curie Fellowship in 2013 and the Procter & Gamble Award for the best sustainability-oriented thesis in 2009.

### PART A. THESIS

#### 1. INTRODUCTION

'To push forward the sustainability agenda that to me is the kind of change, structural change in our business model' [Graham, Corporate Responsibility Team, P17]<sup>3</sup>

When I took on my PhD position, it came with the task to conduct a research project on business models in the context of corporate responsibility and sustainability. The received title of the PhD project was 'New Business Models in Sustainability and Corporate Social Responsibility'. The given project involved an in-depth case study from inside The Company, a FTSE100-listed corporation. In order to contextualize observations made in The Company, the project was later extended to include the larger group of FTSE100 companies. I studied how they had embedded corporate responsibility and sustainability into business model descriptions in annual reports. This introductory chapter relies on the rich empirical material from The Company and the FTSE100. I will introduce this thesis document through the phenomenon and the resulting research problem. I will also introduce the conceptual framework and main methods applied. Finally I will briefly introduce the thesis papers.

#### 1.1. Phenomenon and Research Problem

The first time I visited the company, I was introduced to the people of the corporate sustainability team. Just three months later this team had been merged with the corporate responsibility team. It had become one combined responsibility-sustainability team. One of the reasons mentioned was that in practice responsibility and sustainability cares such as climate change or health were managed together. They were not dealt with as separate sustainability or responsibility topics. They were an entanglement of both which I refer to in this thesis as responsibility-sustainability. I also learnt that a high-level executive team around the CEO had just created their 'Being Responsible' program. The program was a company-wide initiative created to embed responsibility-sustainability across The Company.

<sup>&</sup>lt;sup>3</sup> The numbers in parentheses [] serve as references to a particular interviewee in The Company. *Appendix 1* is a full list of interviewees (anonymized). Papers 5 and 6 include tables with additional information on the interviewees' context.

As observed among the FTSE100 companies, programs like 'Being Responsible' were a wide-spread phenomenon. Over a third, of these companies reported such large-scale corporate responsibility-sustainability programs as embedded into their business model descriptions (Papers 3, 4). These observations were particularly intriguing as they suggested that such programs might become embedded into a company's business model. This setting gave rise to the initial research problem of this thesis:

**Research Problem:** How can responsibility-sustainability programs change business models?

This problem was the point of departure of the research journey which is documented in this PhD thesis. The phenomenon described above is studied through a conceptual framework constructed from two main areas: Business models and corporate responsibility-sustainability. The framework will be introduced in the following sections.

#### 1.2. Business Model Change

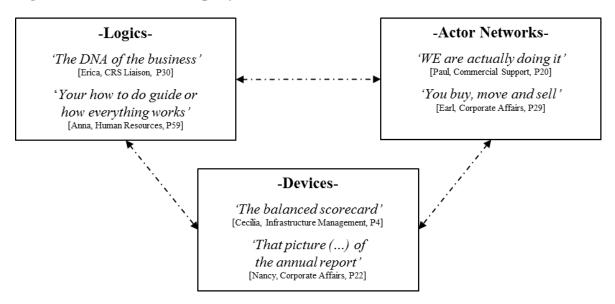
#### 1.2.1. Dynamic States of the Business Model

After asking interviewees in The Company, 'What is The Company's business model?' I quickly realized that this might be the wrong question to ask. Interviewees described the business model very differently. Examples were 'the DNA of the business' [Erica, CRS Liaison, P30], 'that picture (...) of the annual report' [Nancy, Corporate Affairs, P22], or 'WE are actually doing it' [Paul, Commercial Support, P20]. Interestingly, this variety was apparently not a matter of disagreement or competing understandings between interviewees. In many cases the same interviewee described the business model to be several different things at the same time. Accordingly, the question should have been, grammatically wrong, but more accurately reflecting the phenomenon 'What are The Company's business model?' The business model appeared to exist in several interrelated 'states' at the same time.

This observation is similar, metaphorically speaking, to how water exists in distinct states of aggregation such as liquid (water), solid (ice) and gaseous (vapour). We cannot entirely understand water by only looking at its liquid form. Equally, we cannot entirely understand business models by looking at only one of its states. To understand water, we also have to understand the dynamics connecting its states. We need to understand freezing and melting as dynamics between ice and water; condensation and evaporation between water and

vapour. To understand a particular business model and business models as a whole, we have to understand them in all their states as well as the dynamics between these states.

Figure 1 States of The Company's Business Model



As illustrated in Figure 1, answers of interviewees represented three states a business model may exist in: logics, devices and actor-networks. These three states are also well-known to the business model literature.<sup>4</sup> Together, these states reflect the business model as it was perceived by interviewees and reflected in the literature.

#### 1.2.2. Business Model Change: Logics, Devices, Actor Networks

This thesis studies business model change. If a business model *is* logics, devices and actor(s) (networks), business model change is change in any of these states. However, change may not only happen *in* each of the following states, but also through the dynamics *between* them.

First, business models are understood as the *logic* of doing business (Chesbrough & Rosenbloom, 2002; Johnson, et al., 2008; Teece, 2010), similar to 'the DNA of the business' [P30], which Erica a CRS Liaison in The Company had described. In this thesis, business model logics will be studied through the lens of 'logics of action' which guide business model actors (Bacharach & Mundell, 1993; Bacharach, et al., 1996; Thornton & Ocasio, 2008). These logics may be influenced by distinct institutional logics (Friedland & Alford, 1991; Thornton & Ocasio, 2008). For instance, The Company's dominant business model logic was that of an 'efficient money-making machine' (Papers 6, 7). It was influenced by

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<sup>&</sup>lt;sup>4</sup> These states were derived by going back and forth between interviewees' answers and the business model literature.

the institutional logic of the commercial market.

Second, business models have also been studied as devices (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009), such as 'that picture' [Nancy, Corporate Affairs, P22] in the annual report of The Company. A device is 'a thing' that has been created to 'do something'. It possesses 'agency'. Devices are created to engage in a particular type of action (Akrich & Latour, 1992; Callon, 1986; Callon, 1991). The agency of a business model device relates to business models (Demil & Lecocq, 2010; Doganova & Eyquem-Renault, 2009). For instance, FTSE100 companies' annual report business model descriptions had agency to describe business models to readers.

Third, business models have been conceptualized as the actor-networks (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009) that enact a businesses' *activity system* (Casadesus-Masanell & Ricart, 2010; Zott, et al., 2011; Zott & Amit, 2010). As Paul from Commercial Support had observed: 'WE [the actors] are actually doing it' [P20]. In The Company core activities enacted by the network of actors were 'buy, move and sell' [Earl, Corporate Affairs, P29].

These three states of the business model, logics, devices, actor networks, run through this thesis like a golden thread. They become part of the business model definition derived from the literature in Chapter 2. Each of the seven papers in this thesis elaborates on several of the states and on their relationships. Chapter 5 connects insights from the whole thesis in one conceptual framework of the dynamics between business model logics, devices and actor networks. <sup>5</sup> Through the framework it will be shown how embedding responsibility-sustainability may drive business model change.

#### 1.3. Embedding Corporate Responsibility-Sustainability

#### 1.3.1. The Entangled Nature of Corporate Responsibility-Sustainability

Corporate responsibility-sustainability, as mentioned earlier in this chapter, describes corporations' efforts to manage the entangled cares of responsibility and sustainability. The Company's responsibility-sustainability program 'Being Responsible' addressed a number of such cares, among others, environmental impact, community engagement and responsible purchasing (Paper 5). Similarly, the FTSE100 companies embedded a variety

<sup>&</sup>lt;sup>5</sup> Ideas related to actor-network theory have been applied in organizational studies as 'socio-materiality' (Orlikowski & Scott, 2008; Orlikowski, 2009). Both lenses have been used together (Demil & Lecocq, 2015; Orlikowski, 2009). However, I exclusively use actor-network theory for the sake of acuity and to avoid ambiguities arising from conceptual difference between both concepts.

of cares into their business model descriptions (Paper 4). I found 18 distinct themes of cares, as diverse as, safety, socio-economic development and recycling. Again, it would be difficult to classify these cares either exclusively under the responsibility or sustainability umbrellas. This entangled nature also is present in the topics discussed during interviews in The Company. For instance, the word 'sustainability' was mentioned 321 times, 'responsibility' 450 times.<sup>6</sup> I use the label corporate responsibility-sustainability to account for this entangled nature of corporate responsibility and corporate sustainability.

#### 1.3.2. Embedding Responsibility-Sustainability

A quarter of interviewees explicitly used variations of the term 'embedding' to describe their efforts related to 'Being Responsible' Exemplary statements are to 'embed that throughout the business' [Haley, CRS Team, P8], that 'it needs to be embedded within the business' [Lilo, Subsidiary Company, P56] or is 'embedded in the business' [Jacob, CRS Team, P7; Jay, Corporate Affairs, P23; Lee, Infrastructure Team P43]. The term embedding inductively emerged from the data and was not prompted. The following quote further illustrates in depth what interviewees meant by embedding:

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. (...) the core purpose and what it is that we stand for (...) our strategy and how we approach business (...) filter down into the various operating models across the business. Being Responsible becomes a fine common thread throughout. (...) If you spoke to anybody in the business, (...) somebody who works on our back door taking in our delivery or whether it's one of our business leaders (...) Being Responsible is engrained in the culture.' [Anna, Human Resources, P59]

The corporate responsibility-sustainability literature includes a small area, which studies the implementation of responsibility-sustainability across various aspects of a company as embedding (Bartlett, 2009; Haugh & Talwar, 2010; Lozano, 2012; Perera-Aldama, et al., 2009; Spence & Rinaldi, 2014) (see Chapter 3). Corporate responsibility-sustainability programs like *'Being Responsible'* have been found to drive embedding (Grayson, 2011).

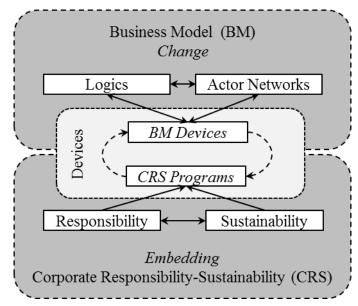
<sup>&</sup>lt;sup>6</sup> The count was determined through NVivo word frequency search.

<sup>&</sup>lt;sup>7</sup> Embedding, embedded, or embed were used in 65 statements, in 31 interviews, by 23 interviewees.

#### 1.4. Conceptual Framework and the Role of Devices

The business model and corporate responsibility-sustainability concepts come together in the conceptual framework of this thesis visualized in Figure 2. It illustrates how the business model exists in three states, of logics, devices and actor networks (Chapter 2) and as their dynamics. The conceptual connection between business models and corporate responsibility-sustainability in this thesis is made through devices. First, devices, such as the FTSE100 companies' business model descriptions in annual reports, may have responsibility-sustainability embedded (Papers 3, 4). They are objects of embedding. Secondly, as argued above, a responsibility-sustainability program such as 'Being Responsible', can act as a business model change device (Papers 3, 4). They are subjects of embedding. Both types of devices relate to a company's business model and to responsibility-sustainability.

Figure 2 Conceptual Framework



These examples also illustrate the close relationship between embedding responsibility-sustainability and business model change. Both may go hand-in-hand as indicated in the title of this thesis: 'Business model change through embedding corporate responsibility-sustainability.' The conceptual framework directly leads into the preliminary conceptual statement, to be qualified further throughout this thesis document:

**Preliminary conceptual statement:** Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel these dynamics.

The statement is the point of departure for the research questions described in the following section.

#### 1.5. Research Questions

The following four research questions depart from the preliminary conceptual statement above to address the initial research problem 'How can responsibility-sustainability programs change business models?' These research questions will be answered using insights from the papers of this thesis, in the conclusions chapter. The first question represents an interest in understanding the processes of embedding:

**RQ1:** How does embedding of responsibility-sustainability into business model logics, devices and actor-networks happen?

The question is aimed at understanding the processes of responsibility-sustainability embedding into the three states of business models. As suggested through the conceptual framework, change in a business model state constitutes change of the business model. The question is based on the assumption that embedding processes differ between logics, devices and actor networks. The second question then hones in on one of these processes, embedding into actor networks and on the role of devices in this embedding process:

**RQ2:** How can a responsibility-sustainability program develop agency to embed responsibility-sustainability and to change business model actor networks?

The question is aimed at understanding the agency of a program like 'Being Responsible'. The question studies what it 'does'. It relates to both its function as a device for embedding responsibility-sustainability and for changing a business model's actor network. It is also aimed at studying the characteristics of a device that enable it to change an actor-network. The third question zooms out. It moves the attention from the intersection between devices and actor-networks back to the bigger picture:

**RQ3:** How may embedding responsibility-sustainability change the dynamics of business model logics, devices and actor networks?

The first question was aimed at studying the embedding *into* business model logics, devices and actor-networks. The second question is focused on the embedding *into* the actor-network. This third question is aimed at studying the dynamics of change *between* all three states. The question is based on the assumption that there will be a ripple effect: The device

embedding responsibility-sustainability into the actor network may also change the business model logic and other business model devices through the dynamics *between* them.

#### 1.6. Methods and Methodology

Each of the papers in this thesis is based on a distinct mix of methods. However, several central methodological features are shared between most papers. These features will be introduced in the next sections.

#### 1.6.1. Social Constructionism

As Cecilia from Infrastructure Management said, 'The Company's business model is very different depending on what department you're in' [P4]. Actors in The Company constructed what they called the business model (Paper 6). Among the FTSE100, commercial elements and responsibility-sustainability elements were combined to construct business model descriptions (see Paper 4). The philosophy of social constructionism understands reality as constructed through such interaction (Berger & Luckmann, 1966). This means that actors continuously and collaboratively create 'a world in the process of social exchange' (Guba & Lincoln, 1994, p. 127). In constructionism, there is not just one objective reality, but many possible 'subjective realities'. There are 'versions and versions' of realities that emerge from distinct construction processes (Schwandt, 1994, p. 126).

The two main conceptual lenses of this thesis are actor-network theory and organizational institutionalism. Actor-network theory has been used both as a methodology and as a conceptual lens. From the field of organizational institutionalism, the concept of institutional logics is used widely across this thesis. Both lenses share constructionist elements.

#### 1.6.2. Actor-Network Methodology

In The Company I observed how the 'Being Responsible' program constructed a responsibility-sustainability actor network. The program, for instance, led to the creation of the new actor of a 'Being Responsible' value. Through the value, The Company's value statement became part of the responsibility-sustainability actor network. The values statement in turn enrolled employees to act upon the 'Being Responsible' value. Together these actors formed a network that enacted responsibility-sustainability.

Actor-networks are constructed when human (e.g. employees) and nonhuman (e.g. the values statement) actors relate to each other (Callon, 1986; Callon & Law, 1997; Law,

1992). I followed 'Being Responsible' across The Company to study the construction of its actor network.

#### 1.6.3. Qualitative Methods

Conducting an in-depth case study, such as the one of The Company, is a typical setting for qualitative methods. Qualitative methods also were an excellent match with the explorative and inductive nature of the research problem (Bansal & Corley, 2012; Gioia, et al., 2012).

Data was collected from two main sources. The first source was the openly available reports of the FTSE100 companies. From each of the 100 reports, I extracted and analyzed the textual-visual business model description (Papers 3, 4). The second source of data was The Company (Papers 5-7). For 32 months I engaged with The Company, conducting 104 interviews, with 72 interviewees and gathering rich observational data. Across most papers, I used the coding method thematic template analysis (Boyatzis, 1998; Crabtree & Miller, 1999; King, 2004). The method combines inductive and deductive construction of interrelated themes from the data (King, 2004).

To highlight my own constructions and constructions processes I narrate in first person. When speaking from the construction of a participant I use their aliases or their participant number (P23, P10 etc.). As a general rule, constructions of participants have been given preference. For instance, I use participants' concept of 'embedding' responsibility-sustainability instead of the more common 'implementation' which I was familiar with from the literature. Participants' descriptions of The Company's business model (see Paper 6) were given preference over literature-derived business model categories. Finally, giving voice to participants is also reflected in the writing style. In general, I show primary pieces of data before each paper and chapter. Such introductory quotes are used to provide direction so that texts are consistent with the empirical voices.

#### 1.7. Papers

The seven papers this thesis is based on can be divided into three groups. I will briefly introduce these groups.

#### 1.7.1. Conceptual Groundwork (Papers 1 and 2)

The first two papers are conceptual papers heavily relying on reviews of the literature. Paper 1, lead-authored by Sally Randles, is short-titled *'normative business model'*. We

<sup>&</sup>lt;sup>8</sup> Additionally, the illustrative case of Arizona State University in Paper 1 involved the use of interviews conducted by the first author Sally Randles. Paper 2 did not rely on primary data, but the reviewed articles were analyzed using thematic template analysis, similarly to how primary empirical material was analyzed.

theorize how social cares become embedded into a business model through processes of (de)institutionalization and institutional entrepreneurialism, influencing an organization's normativity and governance instruments. The paper also mentions the three business model states and their dynamics for the first time. It suggests that devices and lived 'de-facto' business models may have distinct logics. Paper 2 'blending logics' is a structured literature review comparing commercial and sustainability business models. It suggests that such different types of business model logics are influenced by distinct institutional logics. In the case of the paper, these logics are the ones of the commercial market and of sustainable development. These logics blend in actual companies' business models. These two papers lay the conceptual groundwork for the thesis. They introduce the main conceptual lenses of actor-network theory<sup>9</sup> (Paper 1) and organizational institutionalism (Paper 1, 2). The papers also introduce the dynamics between business model logics, devices and actor networks. The dynamics between these business model states is the central theme running through this thesis.

#### 1.7.2. The FTSE100s' Devices and Logics (Papers 3 and 4)

Papers 3 and 4 are empirical papers analyzing the FTSE100 companies' descriptions of their business models included in annual reports. These descriptions are considered business model devices. Paper 3 focuses on 'devices' combination', analyzing how elements from commercial and responsibility-sustainability logics are combined in devices. Six mechanisms were observed. Not only did these mechanisms change the device by embedding responsibility-sustainability. Paper 4 focuses on 'inscription-description'. It studies how responsibility-sustainability cares, such as environment and diversity, had been embedded into the inscription of business model descriptions.

These two papers illustrate embedding processes into devices and logics contributing to the first research question. The papers also provide insights for the third research question, which is aimed at understanding the dynamics between distinct business model states. The papers provide insights into the dynamics between devices and logics: Embedding responsibility-sustainability into business model *devices* also changes the business model *logic* described by them.

<sup>9</sup> Paper 1 does not go into depth with actor-network theory, but mentions it together with organizational institutionalism as its conceptual basis and suggests it as promising alternative lens for business model research.

#### 1.7.3. The Company's Device and Actor Network (Papers 5-7)

Papers 5-7 together form an in-depth case study of The Company's embedding of responsibility-sustainability through the 'Being Responsible' device. Paper 5 revolves around 'device agency', finding five types of agency developed by the device. The agency types relate to different 'moments' of the translation process (Callon, 1986). Translation is the process through which actor-networks change. Paper 6 centres on 'actor network', focusing on the devices' translation by following 'Being Responsible' across The Company. The device embeds responsibility-sustainability into the business model actor network and into its central actors. The business model actor network was changed incrementally, but pervasively. Paper 7 'dynamics & change' builds a model of logics, devices and actor networks. The model explains business model change through embedding responsibility-sustainability. It suggests that a translation process is fueled by misalignment. The misalignment arises between the responsibility-sustainability logic inscribed into the program and the commercial logic enacted by the dominant business model. These translation processes in turn change the network so that it enacts a new logic. Translation also changes devices.

These papers contribute strongly to the second research question concerned with device agency. The papers also contribute to the third research question studying the dynamics between logics, devices and actor-networks.

#### 1.8. Summary

In this chapter I have provided a summary of the content and structure of this thesis. This basic structure will be substantiated in the following chapters. As illustrated in Figure 3, this chapter contributes to the larger thesis structure by creating an appreciation of the phenomenon of embedding responsibility-sustainability into business models. It has also introduced the research problem. The problem has been translated into research questions guiding the remainder of this thesis. The next two chapters are literature reviews serving to undergird the conceptual framework.

Figure 3 Big Picture after Chapter 1, 'Introduction'

## BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

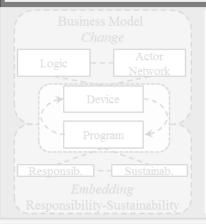
**Preliminary conceptual statement:** Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- Reality constructed by actors
- Unifies lenses: Actor-network theory and institutional logics

#### Actor-network methodology

• Follow (human-nonhuman) actors

#### Qualitative methods

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

## L L

			N
P1:Normative business model	V	V	V
P2:Blending logics	/		
P3: Devices' combination	/	V	
P4: Inscription- description	V	/	
P5: Device agency	V	/	V
P6: Actor network		~	/
P7: Dynamics	1	1	

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business model involves three processes: Blending logics, combining device elements, translation between actors.
- III. Misalignment-tension-translation-change: Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

#### Business Model Discussions

- Dynamic states of business models
- Institutionalist business model research
- ☐ Emancipation from 'Business-Business Models'
- Actor-networks versus activity systems?

#### Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- Embedding and actor network theory
- \* Actor-network theory versus stakeholder theory?
- \* Textual device constructing organizational reality

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

### 2. BUSINESS MODELS AND CORPORATE RESPONSIBILITY-SUSTAINABILITY: CRITICAL REVIEW

'This is not how things happen in The Company. When academic theory is applied afterwards, that is often a somewhat awkward fit.' [Jacob, CRS Team, P7]

The end-points of each of the two literature reviews in this chapter are definitions; of business models and of corporate responsibility-sustainability. What is a good definition? Business models have been defined from a 'plurality of perspectives' (Klang, et al., 2014, p. 454). Different definitions and understandings of 'the' business model have been constructed and reconstructed over time (Ghaziani & Ventresca, 2005). Van Marrewijk (2003, p. 95) prominently claims that a 'one solution fits all-definition' of corporate responsibility-sustainability 'should be abandoned'. The reason is that one definition can never reflect the variety of social constructions across distinct companies.

These statements represent well the social constructionist worldview behind this thesis. Constructionists see knowledge in general and definitions in particular as socially constructed (Latour & Woolgar, 1979). Knowledge as reviewed in the literature of this chapter is not 'built from objective truth but (...) an artifact-the product of social definition' (Astley, 1985, p. 497). From a constructionist perspective, there is no 'true' definition. However, there may be definitions which better or worse 'represent' or 'speak' for a particular construction (Callon, 1986). A goal of this chapter is to avoid the 'awkward fit' [P7], which Jacob from the CRS Team had cautioned against. I aim to construct definitions that represent well the constructions in The Company and among the FTSE100.

Following the evolution of the literature helps to understand the construction of business model and corporate responsibility-sustainability knowledge over time. It also enables me to critique these literatures. The critique in turn enables a reconstruction running into a definition for the social construction that *is* this thesis. This chapter first reviews the business model literature, then the corporate responsibility and sustainability literatures. Each topic will be followed through its evolution. A critical appreciation of the literature will serve to position this thesis in these literatures. The last step is the construction of a definition of *'business model'* and of *'corporate responsibility-sustainability'*.

#### 2.1. **Business Models**

#### 2.1.1. Evolution of Business Model Literatures

This section is an overview of the evolution of the business model concept in five periods. The periods were constructed from the cross-reading of publications outlining the history of the concept (Burkhart, et al., 2011; Ghaziani & Ventresca, 2005; Klang, et al., 2014; Nielsen & Lund, 2014; Osterwalder, et al., 2005; Wirtz, et al., 2016; Zott, et al., 2011), and from a basic bibliometric review of business model articles. <sup>10</sup> There are i) a fragmented use period dominated by sporadic use in multiple disciplines; ii) a pioneering period of information systems and e-business application; iii) a period where the concept was broadened into *generalized main applications* such as entrepreneurship and strategy; and iv) a period of *proliferation* where it became applied across a variety of new areas. The business model now appears to enter into a period of v) consolidation, where business model research is constructed as coherent field. It follows a brief description of each period (see Figure 4).

During the first period of fragmented use, the term business model was used in isolated publications across disparate topic areas, including competitive positioning (Madsen, 1989); internationalization strategy (Kugel, 1972); technology commercialization (Friedman, 1971); business ethics (Barnett, 1985); monetary economics (Ball, et al., 1978) and educational administration (Keenan, 1961). The use of the concept is what Ghaziani and Ventresca (2005, p. 535) call the 'tacit use'. It assumes readers to know what business model means in the context of a particular publication. However, several articles were connected under common themes such as education (Goehrung, 1982; Jones, 1960; Keenan, 1961; Myers, 1976); strategy (Kugel, 1972; Madsen, 1989); public administration (Austin, 1989; Keenan, 1961) and finance (Ball, et al., 1978; Robertson, 1990; Schaefer, 1979). These themes may be considered disparate precursors of later coherent bodies of literature.

For instance, the current discussion on alternative business models (e.g. for sustainable business or social business) was foreshadowed by early use in the context of business ethics. Business models of social purpose organizations relate to the early public administration stream. Two publications in strategy from the mid-1960s were revived

<sup>&</sup>lt;sup>10</sup> The numbers of publications per period in brackets [] are based on a Google Scholar search the 28<sup>th</sup> of December 2015 with the search parameters 'allintitle: "business model". Google scholar was preferred over other databases such as Web of Science or Scopus, for its listing of grey literature and books (not listed in the other two databases). Several such sources were highly cited in the business model literature.

through the current strategy literature on business models. The contemporary stream of business models in entrepreneurship was foreshadowed by early research on profitability of ventures (Schaefer, 1979) and on craftspersons' business models (Goehrung, 1982). Even the isolated article on the commercialization of innovation of chemical specialities (Friedman, 1971) may be understood as a precursor of the early 2000s discussion on business models for the commercialization of innovations. An early thematic cluster was related to information technology in operations management. This cluster includes the topics of mathematical business optimization (Walker, 1961); engineering simulations (Duersch, 1975; Bohm, 1980); database business models (Dottore, 1977); business information systems (Hardee, 1987; Meador, 1990); as well as business systems modelling and simulation (Kaneko, 1987). This theme developed into the coherent body of business model literature that marked the transition into the next evolutionary period.

The second period was dominated by applications in *information systems* and *e-Business*. Both topics were co-constructed in the early 1990s, simultaneously taking off around 1996. With the advent of these discussions, a shared understanding of the meaning of business models was constructed for their context. With this explicit shared understanding, the tacit use of the term decreased substantially (Ghaziani & Ventresca, 2005). Highly cited topic areas from information systems research were the discussions around knowledge management and business model organizing from an information systems perspective (Week, 2000); business process modelling with the help of programming methods such as the Unified Modelling Language (UML) (Eriksson & Penker, 2000); and business modelling as an approach of operational design that went beyond mere process modelling as it depicted a whole organization (Gordijn, et al., 2000). The second stream of research, business models for e-business, is more dominant in citations than the previous one on information systems. This stream is considered the birthplace of the business model as a concept (Nielsen & Lund, 2014; Osterwalder, et al., 2005). How to make business in the new internet environment became a flourishing subject, which fueled and dominated the business model discussion from the mid-1990s to the early 2000s (Amit & Zott, 2001; Dubosson-Torbay, et al., 2002; Gordijn & Akkermans, 2001; Mahadevan, 2000).

During the third period labelled as *generalized main applications*, the business model literature moved from two very narrow fields (information systems and e-business) into the broader business and management discussion (Nielsen & Lund, 2014). Prominent were the fields of entrepreneurship, strategy and innovation. An article by Amit and Zott (2001) can

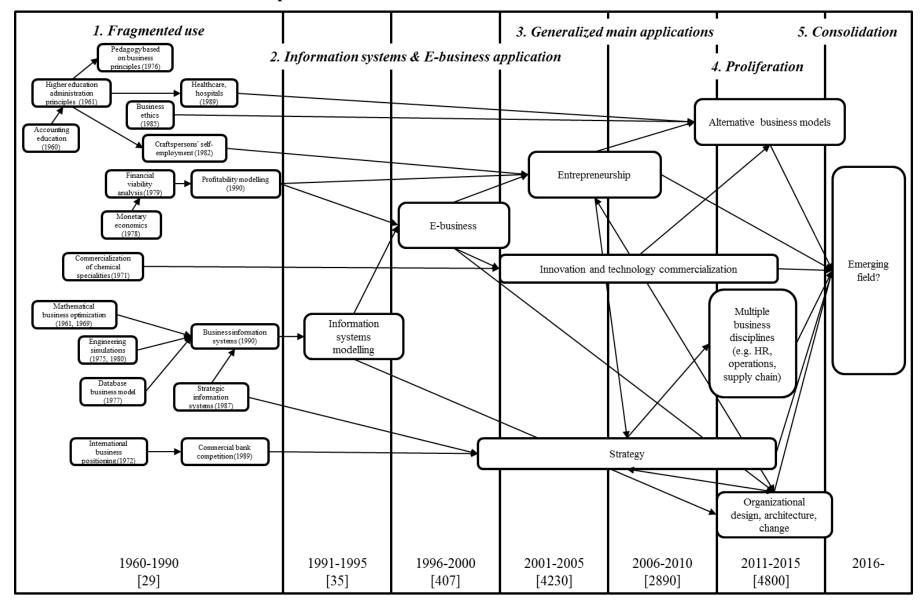
be considered an evolutionary link between the two periods. It theorizes value creation in e-business, a typical topic of the e-business period. However, the article is published in the Strategic Management Journal, a high-profile outlet of the strategy community. The business model had become a key topic in strategy. It disconnected from its link to ebusiness (Magretta, 2002) as exemplified by a body of highly cited articles on strategy and business models (Casadesus-Masanell & Ricart, 2010; Yip, 2004; Zott & Amit, 2008). Also, Amit and Zott, the authors of this key article, became leaders in the business model discussion in entrepreneurship (Zott & Amit, 2007; Zott & Amit, 2010), which was the second main application in this period. Business models in the entrepreneurship field were a natural transition from business models in e-business entrepreneurship (George & Bock, 2011; Morris, et al., 2005; Seelos & Mair, 2005; Trimi & Berbegal-Mirabent, 2012). Another example for a concept born in the e-business phase evolving into general business and management application is the 'business model ontology' (Osterwalder, 2004). It originally was a centre piece of the information systems and of the e-business discussions (Dubosson-Torbay, et al., 2002; Gordijn, et al., 2005). The business model ontology became the 'business model canvas'. The canvas is now widely used in entrepreneurial venture design, organizational transformation, in strategy development (Osterwalder & Pigneur, 2010) and marketing (Osterwalder, et al., 2014). A third discussion developed in the innovation literature. Chesbrough and Rosenbloom's (2002) highly-cited article pioneered this discussion. It describes how Xerox captured value from technological innovation by designing business models to commercialize these innovations. An extensive discussion focusing on the commercialization of technology followed (Baden-Fuller & Haefliger, 2013; Chesbrough, 2003; Gambardella & McGahan, 2010).

During the fourth period, labelled as *proliferation*, two main developments can be observed. First, additional general business and management streams of research entered. They are the discussions around business model change as organizational change and alternative business models. Second, the business model, similar to its early stages, again triggered discussion in multiple, largely disconnected areas. The discussion around business model change as organizational change emerged was pinpointed by Chesbrough (2007) who prominently stated that business model innovation was 'not about technology anymore'. Business models were not anymore seen as mere vehicles for transporting a technological innovation to the market. They could also be the object of innovation themselves. This stream was focused on the innovation of business models related to

organizational change (Aspara, et al., 2011a; Cavalcante, et al., 2011; Johnson, et al., 2008; Lindgardt, et al., 2009; Sosna, et al., 2010). The stream of research on, 'alternative business models', that are fundamentally different from the for-profit business model, had been foreshadowed by early publications. Examples are Seelos and Mair's (2005) business models for social entrepreneurship and for sustainable business by Stubbs and Cocklin (2008). A third stream was the proliferation of the concept across business functions and disciplines. Several discussions rooted in the concept's origins in information systems as part of operations management. Examples are production management (Björkdahl & Holmén, 2013), distribution (Moore & Birtwistle, 2004) and supply chain management (Gattorna, 2009; Xiao, et al., 2008). Other discussions were applications in marketing (Maglio & Spohrer, 2013; Pauwels & Weiss, 2008); accounting (Leisenring, et al., 2012); leadership (Giesen, et al., 2007; Sanchez & Ricart, 2010); corporate governance (Singh & Zammit, 2006); international business (Sinkovics, et al., 2014); finance (Bukh & Nielsen, 2010; Phillips, et al., 2008; Shi & Manning, 2009) and in human resources (Duppada & Aryasri, 2011; Nielsen & Montemari, 2012).

In 2016 when this thesis was written, a fifth period of the business model literature was on the horizon. A *consolidation* of business model study as a field was ongoing. Wirtz and colleagues (2016) observed that applications of the concept had begun to converge in one construct. This construct was not only used in distinct business model communities, but also embraced the discussions across communities. The business model became constructed as a mid-range theory, distinguishing itself from related concepts which it had been conflated with before (Zott & Amit, 2013); an independent field of mid-range theory building (Lambert, 2010). A series of special issues on business models were published across journals from distinct disciplines. These included special issues in Long Range Planning (2010, 2013, 2016), the Strategic Entrepreneurship Journal (2015), Organization and Environment (2015) and in the International Journal of Product Development (2013). Two new journals were dedicated exclusively to business model research, the *Open* Journal of Business Model Innovation (OJBMI) and the Journal of Business Models (JOBM). The description of JOBM further undergirds the perception that the business model became constructed as a stand-alone field: 'The Journal of Business Models is (...) devoted to establishing the discipline of business models as a separately recognised core discipline in academia - as is already the case in practice.' (JOBM, 2015).

**Figure 4 Evolution of the Business Model Concept** 



### 2.1.2. Literature Positioning and Critical Appraisal

This thesis is positioned in the stream on alternative business models (see Paper 2) at the junction between the business model and corporate responsibility-sustainability discussions. It also connects to the currently constructed stream of business models and organizational change (see Papers 5-7).

The constructionist worldview of this thesis clashes, however, with large parts of the business model literature written from an 'essentialist view' of the business model (Doganova & Eyquem-Renault, 2009, p. 1560). In the essentialist view, business models are more or less 'true' descriptions of the objective organizational reality. This view assumes an objective 'essence' of the one organizational reality that can be reflected in the business model. This view is rooted strongly in the business model's origins in the information systems field. This field is naturally concerned with the degree of accuracy with which the system will reflect the 'real' organization. Osterwalder's notorious business model 'ontology' is a product of this thinking. The essentialist perspective has been reinforced further through the dominant conceptualization of business models as 'activity systems' (Zott, et al., 2011; Zott & Amit, 2010), with activities as a readily observable objective reality.

This thesis instead is positioned in a niche of the literature which is concerned with the social construction of business models (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009) and of business model knowledge (Ghaziani & Ventresca, 2005; Klang, et al., 2014). From this perspective there is no objective essence of a business model. Business model realities are constructions by actors. The construction process may be an exchange between human actors constructing one or several versions of what a business model is between them (Ghaziani & Ventresca, 2005; Klang, et al., 2014). Construction may also be a process between human and nonhuman actors that construct one or several versions of business models by forming actor networks. Both perspectives are present in the papers of this thesis. Papers 2-4 are more closely related to the human-centred construction of business models. Papers 5-7 focus on human-nonhuman construction from an actor-network theory perspective (see Papers 5-7).

### 2.1.3. Constructing a Business Model Definition

There is an extensive discussion about 'the right', 'unified' definition of 'the' business model and of what constitutes its elements (Al-Debei & Avison, 2010; Alberts, et al., 2013; DaSilva & Trkman, 2014; Morris, et al., 2005; Wirtz, et al., 2016). From a constructionist

perspective, this search for the 'one' definition is misguided. If there are many constructed realities out there, then there can never be just one objective definition. Ghaziani and Ventresca (2005) instead identified a multiplicity of valid business model definitions that were constructed from 1975 to 2000. Each definition represented a construction of the business model concept in a distinct 'local' community at a certain point in time. However, each local construction also shared some basic elements with a 'global' business model discussion between communities. Multiple valid business model definitions coexisted in parallel over time. Klang and colleagues (2014, p. 454) explain the current 'plurality of perspectives'. They posit that construction inside distinct research communities leads to the attachment of a label (a definition) to the concept. The label is chosen to fit the community's construction of what 'business model' means.

It follows an attempt to construct a definition of 'business model' for this thesis. It will be valid if speaking for the construction of what a business model means this thesis, including the constructions of research participants. It also has to share basic assumptions with the 'global' understanding shared between distinct local discussions. Shared with the 'global' business model discussion is the understanding of business models as logics, devices and as actor networks:

- Logics: Business models have been described as value 'logics' of how an organization proposes, creates, exchanges and captures value (Abdelkafi & Täuscher, 2016; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Johnson, et al., 2008; Teece, 2010; Zott, et al., 2011). Such logics are the unifying narrative of an organization constituting what it is and does (George & Bock, 2011; Lund, 2013; Magretta, 2002).
- 2. **Devices:** Business model devices come in a variety of forms such as business plans, power point presentations, articles, visual models (Doganova & Eyquem-Renault, 2009), trademarks, mobile apps and products (Demil & Lecocq, 2015). All of them have in common that they are objects, often texts, that are *'inscribed'* with a particular business model logic (Demil & Lecocq, 2015; Doganova, 2015). Devices may act upon their logic by changing existing business models (Demil & Lecocq, 2015), or by creating new businesses (Doganova & Eyquem-Renault, 2009).
- 3. **Actor networks:** Business models have been understood as networks of human and nonhuman actors enacting the business model logic (Demil & Lecocq, 2015;

Doganova & Eyquem-Renault, 2009). This relates to the idea of business models as networks of collaborative practices (Roome & Louche, 2015). Together, these actors enact the business model and create an activity system (Casadesus-Masanell & Ricart, 2010; Seddon, et al., 2004; Zott & Amit, 2010; Zott, et al., 2011).

The business model definition of this thesis connects these three business model states known in the 'global' business model discussion. Other elements of the definition stem from the 'local' constructionist perspective applied in this thesis. Realities are continuously constructed (DeLanda, 1998; Deleuze & Guattari, 1980). Accordingly, also organizations and with them their business models are in a continuous state of construction, of 'becoming' instead of 'being' (Langley & Tsoukas, 2010; Langley, et al., 2013; Tsoukas & Chia, 2002). They exist and change in 'dynamic consistency' (Demil & Lecocq, 2010). The result is a definition not of what the business model is, but of how it continuously becomes.

**Definition:** Business models are the dynamics between organizational value logics, devices the logics are inscribed into, and the actor-networks enacting the logics.

This definition of business models as dynamic states of logics, devices and actornetworks, runs through this thesis. So does the explanation for the existence of business models through their continuous processes of construction.

### 2.2. Corporate Responsibility-Sustainability

### 2.2.1. Evolution of the Corporate Responsibility and Sustainability Literatures

This section is an overview of how the corporate responsibility and corporate sustainability literatures co-developed before leading into today's convergence (see Figure 5). The first period from the late 18<sup>th</sup> century to the 1970s was characterized by *sporadic big ideas and admonitions*. An example from the responsibility literature is Owen's responsible business principles. The principles addressed a concern for worker rights during the industrial revolution (Morton, 1969; Owen, 1821; Owen, 1824). The sustainability literature is represented, for instance, in Thomas Malthus' admonition of humanity's unsustainable development trajectory in his 'essay on the principles of population' (Malthus, 1798/2011). Ideas about responsible and sustainable economic activity were constructed more frequently between the 1930s and 1960s. This led into a period of widespread discussion and contestation in the 1970s. A prominent examples is Milton Friedman's (1970, p. 178) infamous statement that there was 'only one social responsibility of business (...) to

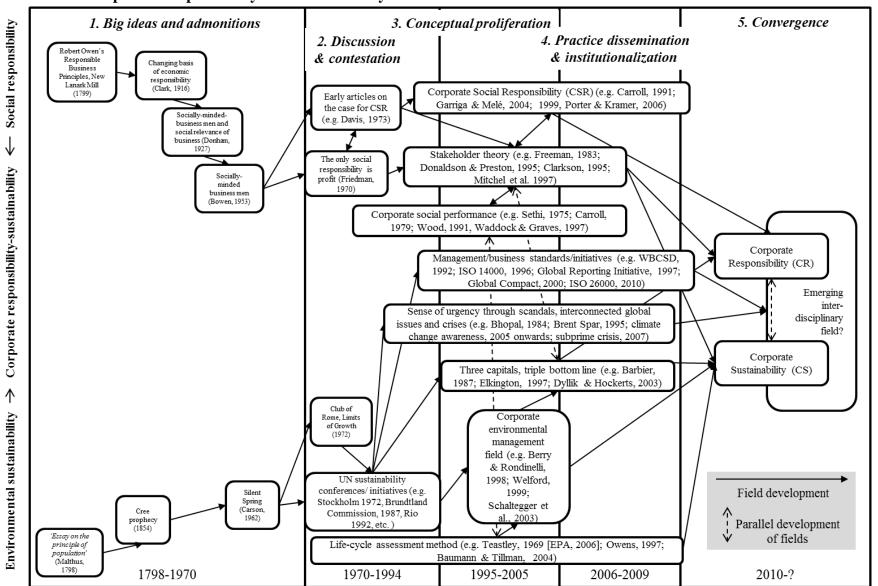
increase its profits'. But there also were more balanced discussions of pros and cons of the assumption of social responsibility such as the one in the paper by Davis (1973). The sustainability discussion was influenced strongly by United Nations initiatives and events such as the 1972 Stockholm conference. There also were, controversial publications on the future of mankind such as The Club of Rome's 'limits of growth' (Meadows, et al., 1972).

Discussions on the 'if' of economic sector responsibility and of sustainability were substituted by theoretical advances concerned with the 'how', in a phase of conceptual proliferation. This period produced responsibility concepts such as corporate social responsibility, corporate social performance, and stakeholder theory. On the sustainability side, the ideas of three (social, environmental, economic) capitals, life-cycle assessment and corporate environmental management were developed. These concepts mirrored practice applications in this period of *practice dissemination and institutionalization*. Institutionalization and standardization efforts were driven by bodies like the United Nations. They were fueled by an increasing awareness of corporations' negative role in social and environmental issues and crises. Boundaries between responsibility and sustainability increasingly blurred. The reason was that social and environmental issues were often tackled together and through shared institutionalization and standardization efforts. For instance, stakeholder thinking, which had originated in the corporate responsibility debate, was also useful in corporate sustainability. The sustainability-born idea of social, environmental and economic dimensions was quickly taken up in responsibility practice as social, environmental and economic responsibilities. Movements like the Global Compact or Global Reporting Initiative were followed by thousands of companies. They integrated elements from both corporate responsibility and sustainability. The academic discussion only sluggishly reflected this convergence. The corporate sustainability and corporate responsibility debates mainly were led in disciplinary silos (Montiel, 2008).

This description of the coevolution between corporate responsibility and sustainability is a rough sketch<sup>11</sup>. It will be developed further in the following descriptions of the corporate responsibility and corporate sustainability fields.

<sup>&</sup>lt;sup>11</sup> The timeline in Figure 5 describes when topics were most relevant in the bigger picture. It omits instances where particular items '*lingered on*', but were not at the forefront of discussion.

Figure 5 Coevolution of Corporate Responsibility and Sustainability Discussions



Corporate Responsibility (CR). Isolated early propositions that businesses and business men have a prominent role to play in society were largely constructed in the first half of the 20<sup>th</sup> century (Bowen, 1953; Donham, 1927a; Donham, 1927b; Drucker, 1954). In the 1960s such propositions were manifested in first definitions of businesses' social responsibility (Davis, 1960; Frederick, 1960) and of corporate social responsibility (Manne & Wallich, 1972). This formalization led to Friedman's infamous (1970) attack on the legitimacy of managers' assumption of social responsibilities beyond making profit. Friedman's proposition was that owners should be businesses managers' main constituency, not society. This was answered by Freeman's (1984, p. 25) formalization of the idea of stakeholders as a variety of 'groups and individuals that can affect or are affected' by business activity. Freeman understands owners as just one among many legitimate constituencies of business. Stakeholder theory facilitated the development of prominent concepts including the pyramid model of corporate social responsibility (Carroll, 1991), corporate social performance (Clarkson, 1995; Wood, 1991) and stakeholder salience (Mitchell, et al., 1997).

Stakeholder thinking also led into corporate social responsibility (CSR). The corporate social responsibility debate partly moved away the focus from the larger role of business in society. The discussion was focused on atomistic and isolatable positive social impacts for particular stakeholder groups as well as on the social issues stakeholders have a stake in. A second development moved the discussion away from the large societal purpose of a business. Instrumental corporate social responsibility conceptualized socially-oriented business activity as an instrument for commercial gain. Societal benefit became a secondary condition to the company's economic purpose. Instrumental corporate social responsibility manifested in the discussion, to what degree social performance increased financial performance (Griffin & Mahon, 1997; Waddock & Graves, 1997). It was also present in the search for a business case (Carroll & Shabana, 2010; Salzmann, et al., 2005) and for 'shared value' through social initiatives that increased a company's competitiveness (Porter & Kramer, 2006; 2011).

Recent research has redirected organization-level corporate responsibility towards individual-level analysis. The discussions on the micro-foundations of corporate social responsibility, 'based on individual action and interaction' (Aguinis & Glavas, 2012, p. 932; Dillon, 2014; Maak, et al., 2015), and the application of responsibility in responsible management (Ennals, 2014; Hibbert & Cunliffe, 2013; Laasch & Conaway, 2015; Laasch

& Moosmayer, 2015; Ogunyemi, 2012) appear to move the field towards individual-level research. This research is complementary with descriptive business ethics, which also focuses on the individual level. However, the discussions are distinct in the questions asked.

From the middle of the first decade of the new millennium on, the term corporate social responsibility became increasingly substituted by the label corporate responsibility. Corporate responsibility includes social, environmental and economic responsibilities (Dawkins, 2005; Scherer & Palazzo, 2007; Surroca, et al., 2010; Waddock, 2008; Zadeck, 2004). This change can largely be attributed to increasing attention paid not only to social, but also to environmental issues which were originally covered by the field of corporate sustainability. Much of the previous literature had been concerned with normatively defining what kind of responsibility should be assumed. This recent corporate responsibility literature, however, had a focus on the implementation and integration of responsibility activities in the core of a business and across all of its areas (Grayson, 2011; Maon, et al., 2010; Perera-Aldama, et al., 2009; Rasche, et al., 2013; Russo & Tencati, 2009; Yuan, et al., 2011).

Corporate Sustainability (CS). Corporate sustainability has deep roots in early admonitions that development patterns of human behavior and of economic activity on earth could not be sustained in the long run. Examples are Malthus' 'Essay on the principle of population' (Malthus, 1798/2011); the indigenous Cree Prophecy ("Cree indian prophecy", 1854/2004); Rachel Carson's book 'Silent spring' (Carson, 1962/2002); and the Club of Rome's 'Limits of Growth' (Meadows, et al., 1972). The World Commission on Environment and Development unified these admonitions in the definition of sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987, p. 24). <sup>13</sup> The explicit development of what we call corporate sustainability today started with the Earth Summit 1992 in Rio (Etzion, 2007; Schaltegger & Burritt, 2005). The political agenda of sustainable development was brought 'into the boardroom of companies' (Schaltegger & Burritt, 2005, p. 187). Key events during the summit were the presentation of

<sup>&</sup>lt;sup>12</sup> Moving towards the individual level does not necessarily mean to move away from a discussion of the role in society. This discussion can also be led as the role of managers in society, particularly in the context of the professionalization of management (Donham, 1962; Donham, 1927b; Khurana & Nohria, 2008).

<sup>&</sup>lt;sup>13</sup> For a deeper review of the early origins of corporate responsibility and corporate sustainability see Chapter 2 of Laasch and Conaway (2016) and Chapters 3 and 4 of Laasch and Conaway (2015).

Schmidtheiny's (1992) book 'Changing Course' and the foundation of the World Business Council for Sustainable Development.

In the next decade fundamental conceptual discussions evolved (Schaltegger & Burritt, 2005). An example is the question if business sustainability should rather be anthropocentric (centred on humanity's wellbeing) or eco-centric (centred on environmental protection) (Gladwin, et al., 1995; Purser, et al., 1995). Another central academic discussion was the one around weak sustainability (environmental capital can be substituted by other forms of capital) versus strong sustainability (environmental, social, and economic capital are complementary, not mutually substitutable) (Neumayer, 1999). A third discussion centred on simplistic versus complex-systemic approaches to corporate sustainability (Starik & Rands, 1995).

By the late 1990s and early 2000s, these fundamental discussions were translated into concepts and tools for corporate use. This led to novel approaches, pushing the boundaries of thinking in influential mainstream management journals (Bansal & Gao, 2006). For instance, Rennings and Wiggering (1997) discussed if corporate sustainability indicators should be based on weak or strong sustainability. The three capitals, social, environmental, and economic (Barbier, 1987), were translated into models for the business context (Dyllick & Hockerts, 2002) and into tools such as the triple bottom line (Elkington, 1998). During this period two streams of corporate sustainability were constructed. A first stream focused on the environmental dimension. It was constructed through the organizations and environment discussion (Etzion, 2007; Starik & Marcus, 2000). It brought with it tools such as environmental life-cycle assessment (Owens, 1997) or eco-efficiency (DeSimone & Popoff, 2000). It related corporate sustainability to environmental management (Schaltegger, et al., 2003; Welford, 1997). The second stream presented corporate sustainability as related to corporate responsibility, whose social dimension it complements with an environmental dimension (Linnenluecke & Griffiths, 2013; Wilson, 2003). Wellknown concepts and instruments from the responsibility debate entered corporate sustainability through this stream. For instance, stakeholder theory and stakeholder engagement became part of corporate sustainability (Linnenluecke & Griffiths, 2013). Also in the early 2000s, the term corporate sustainability became established explicitly in the literature. It incorporated both influences from the organizations and environment field and from corporate responsibility. They were connected through concepts brought in from the

sustainable development discussion (Benn, et al., 2003; Dyllick & Hockerts, 2002; Van Marrewijk & Werre, 2003; Van Marrewijk, 2003; Wilson, 2003).

The term corporate sustainability was co-constructed with mainstream corporate management. A number of corporate instruments were borrowed from the mainstream management field and reinterpreted for the sustainability context. The balanced scorecard came from strategic management and accounting (Figge, et al., 2002; Hansen & Schaltegger, 2014), managerial competences from personnel development (Barth, et al., 2007; Mochizuki & Fadeeva, 2010; Wiek, et al., 2011) and business models from strategic management and entrepreneurship (Bocken, et al., 2014; Boons, et al., 2013; Schaltegger, et al., 2012; Stubbs & Cocklin, 2008).

The current discourse is characterized by literature shifting the level of analysis from organization-level sustainability, to the individual level of sustainability management (Aragon-Correa, 2013; Starik & Kanashiro, 2013). Recent research also focuses on the manifold tensions, paradoxes and trade-offs in managing sustainability (Hahn, et al., 2010; 2014a; 2014b; Van der Byl & Slawinski, 2015). Another stream reconnects corporate sustainability with the early admonitions. Corporate de-growth connects to the limits to growth which the Club of Rome had warned about (Reichel, 2010; Reichel & Seeberg, 2013; Sekulova, et al., 2013). The application of the planetary boundaries to corporate sustainability connects to Thomas Malthus, the Club of Rome and the Brundtland Report (Whiteman, et al., 2013).

### 2.2.2. Critical Appraisal and Literature Positioning

It appears from the evolution of the corporate responsibility and sustainability literatures that both have reached a mature state of conceptual development. They also appear to have a solid grasp of their respective phenomena. The review has also shown the entanglement of the phenomena both literatures are concerned with and their strong conceptual overlaps. Montiel (2008) observes that a variety of commonalities are creating a basis for synergetic research between the responsibility and sustainability fields. He mentions the shared vision of balancing economic, social and environmental dimensions; common environmental and social cares; similar operationalization of evaluation tools; as well as overlaps in practices and evaluation.

Montiel (2008) also points out that the distinct characteristics of responsibility and sustainability lead to conceptual differences. He mentions that researchers ask different

questions; have a differing understanding of the relationships between social, environmental and economic dimensions; distinct conceptualizations of these dimensions; distinct degrees of eco-centrism and anthropocentrism<sup>14</sup>; and that they use of distinct conceptual lenses. Table 1 developed from the literature review illustrates the distinct, complementary characteristics of both fields.

Table 1 Comparing the Responsibility and Sustainability Fields

	Corporate Responsibility(CR)	Corporate Sustainability (CS)
Historical	Worker treatment, community issues,	Limits to growth, environmental
roots	religious philanthropy	degradation
Problem	Role of businesses and of the	Role of business and economy in
grounding	business sector in society	(un)sustainable development
Normative	Positive role of business in society	Business contribution to (less)
proposition		(un)sustainable development
Subject of	Business relationship with society	Dynamics of social, environmental,
study	and individual stakeholders	economic dimensions over time
Focused	Social	Environmental
dimension		
Assessment	Stakeholder value	Social, environmental, economic
through		impact
Analytical	Stakeholder assessment and	Life-cycle impact assessment, foot-
tools	prioritisation	printing, planetary boundaries
Management	Stakeholder management, materiality	Triple bottom (top) line,
tools	assessment	environmental management
Practitioner	ISO 26000, Global Compact	ISO 14000, European Environmental
standards	Principles, Accountability Standards	Management and Accounting Scheme
		(EMAS)
Practitioner	Global Compact, Business in the	WBCSD, CERES, Dow Jones
organizations	Community, FTSE4GOOD	Sustainability Index
Research	AOM Social Issues in Management	AOM Organizations and the Natural
groups	(SIM) division; International	Environment (ONE) division; Group
	Association of Business in Society	for Research on Organizations and
	(IABS)	the Natural Environment (GRONEN)
Major	Business and Society, Business and	Organization&Environment Business
specialist	Society Review; Journal of Business	Strategy and the Environment;
journals	Ethics	Journal of Cleaner Production

In summary, these observations make a case for interdisciplinarity between corporate responsibility and corporate sustainability (Montiel, 2008; Van Marrewijk, 2003), a 'common transformative space' (Muff, 2015). However, there is a power struggle for conceptual supremacy. The discussion about the relationship between the responsibility and sustainability fields has led to a number of hierarchical proposals. For instance, some scholars understand corporate sustainability as part of the larger business and society field (Schwartz & Carroll, 2008). Others consider corporate sustainability as a corporate

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<sup>&</sup>lt;sup>14</sup> Ecocentrism means centred on the environment. Anthropocentrism means centred on human beings.

responsibility theory (Garriga & Melé, 2004); responsibility as a means for achieving sustainability (Hediger, 2010; ISO, 2012); or corporate sustainability to be the next version of corporate responsibility (Linnenluecke & Griffiths, 2013; Wilson, 2003). One may criticize the responsibility and sustainability fields for engaging into conceptual power struggles, while forfeiting an opportunity to create synergies for tackling social and environmental issues. In this thesis I refer to responsibility-sustainability. The purpose of this is, on the one hand, to remember the aspired interdisciplinary nature of responsibility and sustainability research. On the other hand, it is aimed at better representing the interdisciplinary nature of the phenomena observed in The Company and among the FTSE100.

A second criticism is related to dominantly used research paradigms and the resulting type of research. Scherer and Palazzo (2007) observed two dominant paradigms. One is related to positivism, focused on the 'objective' reality of corporate responsibility-sustainability and on observable causal linkages. The second paradigm is a normative one. Businesses are told what 'the right' or 'best' thing is. The positivist paradigm has led to literature focused on 'what is'. This includes, for instance the discussion about the causal linkage between corporate social performance and financial performance. The normative paradigm has led to literature concerned with 'what should'. Scherer and Palazzo (2007) relate this type of research to moral philosophies outlining what a responsible or sustainable organization should look and be like.

The criticism related to these paradigms is that corporate responsibility-sustainability research has not developed enough research that connects the 'what is' to the 'what should'. Such research would be concerned with the pragmatic 'how to make it happen' and the constructionist 'how it becomes'. New streams of research such as the ones on corporate responsibility implementation and on tensions in corporate sustainability appear to start filling this gap. Scherer and Palazzo (ibid.) suggest that postmodernist paradigms may be particularly suitable to produce relevant research on 'how it becomes'.

This thesis is an example of research positioned in a new stream of corporate responsibility-sustainability research conducted from a postmodernist, constructionist paradigm. Most existing postmodernist corporate responsibility-sustainability research relates to sensemaking and discursive approaches (Angus-Leppan, et al., 2010; Basu & Palazzo, 2008; Nijhof & Jeurissen, 2006; Waller & Conaway, 2011). This thesis instead

applies constructionism, particularly actor-network theory, which was highlighted as a promising postmodernist approach in organization studies (Calás & Smircich, 1999).

This thesis is also positioned in the inter-disciplinary study between corporate responsibility and corporate sustainability. The research subject of business model change positions this thesis in the research in corporate sustainability that connects to mainstream management instruments. The misalignment between commercial logics and corporate responsibility-sustainability logics (see Papers 5, 6) relates to the recent stream of literature on tensions in the corporate sustainability field. On the corporate responsibility side this thesis' focus on deeply embedding corporate responsibility-sustainability into business models, positions it in the recent corporate responsibility implementation and integration literature.

## 2.2.3. Constructing a Corporate Responsibility-Sustainability Definition

The definition constructed in the context of this thesis is aimed at addressing both criticisms raised above. It is aimed at enabling an inter-disciplinary study of responsibility-sustainability (interdisciplinarity criticism). Also, it is focused on 'how it becomes' referring to construction processes of responsibility-sustainability between company actors ('becoming' criticism).

The definition also reflects the intimately entangled nature of responsibility-sustainability phenomena in corporate practice. Responsibility and sustainability management often focus on similar social and environmental issues. This leads to shared management applications and tools that are equally relevant for responsibility and sustainability. For instance, stakeholder management, materiality assessments, and life-cycle assessments are widely used in both responsibility and sustainability management. Often regulatory standards and codes, such as The Global Reporting Initiatives guidelines, the Global Compact, or the ISO 26000 apply for both. Also, responsibility and sustainability both are understood as different from 'normal' commercial activities. This often leads to departments with a blended responsibility-sustainability remit.

This entangled nature of responsibility-sustainability was very present in this thesis' empirical context. The 'Being Responsible' program in The Company explicitly included elements labelled as responsibility and others as sustainability (Paper 4). The FTSE100 companies (Paper 3) in parallel embedded elements labelled responsibility and others labelled sustainability into their business model descriptions. Similarly, Smith and

Alexander (2013) find that the Fortune 500 companies often use multiple labels for describing their corporate responsibility-sustainability activities on company websites. Due to this entangled nature, such phenomena are best studied by flexibly applying responsibility and/or sustainability lenses. Also, the phenomena require an appreciation of the construction of what corporate responsibility-sustainability means in each unique case. This is aimed at avoiding what Van Marrewijk had called a "one solution fits all"-definition" (Van Marrewijk, 2003, p. 95). The following definition is aimed at reflecting an interdisciplinary study of the manifold constructions of corporate responsibility-sustainability.

**Definition:** Corporate Responsibility-Sustainability<sup>15</sup> is the interdisciplinary study of how companies construct and enact entangled responsibility-sustainability.

In this thesis, corporate responsibility-sustainability is the study of the constructions and construction processes in the FTSE100 corporations (Papers 3, 4) and of The Company (Papers 5-7). This study is interdisciplinary as it brings together the business models for sustainability and embedding corporate responsibility discussions. The construction of this interdisciplinary study is subject of the next chapter.

### 2.3. Summary

This chapter has provided an overview of the construction process that *are* the evolutions of the business model literature and of the corporate responsibility-sustainability literatures. A critical appreciation of these literatures and the positioning of this thesis in them provided a basis for defining each topic. In the context of this thesis we understand each, *'business models'* and *'corporate responsibility-sustainability'* as constructions of the actors in a company and as the enactment by them. Figure 6 summarizes the parts of the conceptual framework that this chapter has contributed to the bigger picture of this thesis. The following chapter will complete this conceptual framework by reviewing the literatures on business model change and on embedding responsibility-sustainability.

for corporate social responsibility.

<sup>&</sup>lt;sup>15</sup> The hyphen between responsibility and sustainability is meant to express both their entangled nature in practice and the interdisciplinarity between the responsibility and sustainability fields. Mentioning responsibility before sustainability is not meant to express primacy of responsibility over sustainability. The practical reason for this order is to distinguish its abbreviation CRS from the commonly known CSR standing

### Figure 6 Big Picture after Chapter 2, 'Critical Review'

# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

Phenomenon: The Company was embedding responsibility-sustainability as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

**Research problem:** How can *responsibility-sustainability programs* change business models?

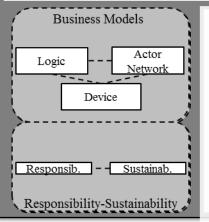
Preliminary conceptual statement: Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop agency to embed responsibility-sustainability and to change business model actor networks?

RQ3: How may embedding responsibility-sustainability change the dynamics of business model logics, devices and actor networks?



	L	D	A N
P1:Normative business model	V	V	V
P2:Blending logics	/		
P3: Devices' combination	/	V	
P4: Inscription- description	V	/	
P5: Device agency	V	/	V
P6: Actor network		~	/
P7: Dynamics & change	/	~	/

# 3. BUSINESS MODEL CHANGE AND EMBEDDING RESPONSIBILITY-SUSTAINABILITY: INTEGRATIVE REVIEW

'Being Responsible is part of our whole business model. (...) like a strand that goes through every area, every function (...) the core purpose and what it is that we stand for. (...) a fine common thread throughout.' [Anna, Human Resources, P59]

This chapter is aimed at showing how business models and corporate responsibility-sustainability come together in this thesis as a unique positioning in the literature. The first section will position this thesis in the literature studying business model change from an actor-network theory perspective. It will highlight the role of devices. The second section will position it between the embedding corporate responsibility and business models for sustainability literatures. It will stress the role of responsibility-sustainability programs. A brief third section will, bring together these streams from the business model and corporate responsibility-sustainability literatures. The resulting conceptual framework suggests that the embedding of responsibility-sustainability driven by programs may change business models. In turn business model change processes, with devices at the heart of the process, may construct a more responsible and sustainable company.

### 3.1. Business Model Change Literature

### 3.1.1. Business Model Change as Organizational Change

The literature around business model innovation and change features two main discussions (Schneider & Spieth, 2013). The first one is centred on the creation of *new* business models. These models are understood as commercialization vehicles, for instance, for an innovative product or a new technology (Chesbrough & Rosenbloom, 2002; Doganova & Eyquem-Renault, 2009; Kodama, 2004; Osterwalder & Pigneur, 2010; Moore & Birtwistle, 2004; Shin & Park, 2009). The second discussion is centred on the change of *pre-existing* business models (Cavalcante, et al., 2011; Gerasymenko, et al., 2015; Linder & Cantrell, 2001; Pateli & Giaglis, 2005; Sparrow, et al., 2008). Business model change refers to organizational change processes related to changing business model. This thesis is positioned in the latter discussion.

The literature on business model change as organizational change studies multiple modes of change from simple replication of existing business models (Aspara, et al., 2010); to incremental change in the forms of renewal, rebuilding, revision, extension and evolution

(Cavalcante, et al., 2011; Demil & Lecocq, 2010; Doz & Kosonen, 2010; Gilbert, et al., 2003); on to more drastic modes of change such as re-invention, transformation or termination of a business model (Aspara, et al., 2011b; Aspara, et al., 2011a; Cavalcante, et al., 2011; Keen & Qureshi, 2006; Johnson, et al., 2008; Voelpel, et al., 2004). Another theme makes these implicit differences in intensity and timing of the innovation process explicit. It discusses disruptive and radical business model change (Amit & Zott, 2012; Demil & Lecocq, 2015; Ho, et al., 2011; Hwang & Christensen, 2008; Karimi & Walter, 2015; Lindgardt, et al., 2009; Treacy, 2004) versus incremental and continuous types of business model change (Amit & Zott, 2012; Mitchell & Coles, 2003; Witell & Löfgren, 2013).

Research on business model change often suggests an explicit, proactive 'management' (Wirtz, 2010) and the directed design and implementation (Casadesus-Masanell & Ricart, 2011; Osterwalder, et al., 2014; Zott & Amit, 2010). This thesis criticizes the overemphasis on change as an exceptional event of short duration that can be controlled by managers. The criticism suggests that change is a continuous relational construction process. It is rather an underlying condition of organizations, than an exceptional event (Langley & Tsoukas, 2010; Langley, et al., 2013; Tsoukas & Chia, 2002). According to this perspective, business models and their change are continuously constructed between actors. Change is often implicit, undirected, and may happen involuntarily or even against the intention of main actors.

# 3.1.2. The Continuous Relational Construction of Business Model Change

Amit and Zott (2012) suggest that change in an activity system of a company changes the business model. Changes include adding activities, linking existing activities, or changes in the way an activity is done. However, only change that alters the larger activity-system enacting the business model (Amit & Zott, 2012; Zott & Amit, 2010) and which leads to a new value logic can be considered business model change (Amit & Zott, 2012; Björkdahl & Holmén, 2013). Central to such change is the nature of 'interdependencies', the relations between activities in the system (Amit & Zott, 2012).

Demil and Lecocq (2010) propose a relational explanation for business model change. Business models change is 'emergent (...) in and between' business model components (p. 227). These components may be of 'physical (plant, equipment, waste, product, stocks...) and human (unskilled and skilled labour, clerical, financial, legal...)' (p. 227). The relations 'in between' them continuously make the business model. They also change it if

the nature of the relations changes. Demil and Lecoq claim that business models exist in a state of 'dynamic consistency'. They persist and appear stable to the outside, while they are involved in continuous, dynamic, relational construction on the inside.

These relational explanations of change closely relate to processural studies of organizations. The idea of 'organizational becoming' as continuous construction and continuous organizational change process (Langley & Tsoukas, 2010; Langley, et al., 2013; Tsoukas & Chia, 2002) is an essential feature of the business model definition constructed in the previous chapter. Tsoukas and Chia (2002) explain how organizations continuously are and become through 'the reweaving' of relations. This reweaving is the process through which organizations are continuously involved in change processes:

'What would organization(s) be like if change is constitutive of reality? Wishing to highlight the pervasiveness of change in organizations, we talk about organizational becoming. Change, we argue, is the reweaving of actors' webs' (Tsoukas & Chia, 2002, p. 567)

Tsoukas and Chia refer to relations between human actors, while Demil and Lecoq refer to relations also between human and physical elements of business models. <sup>16</sup> In a later paper Demil and Lecoq (2015) address this difference by analyzing business model change through actor-network theory. Actor-network theory explains the construction of reality through relational processes between human and nonhuman actors (Callon, 1986; Latour, 1996; Law, 1992). Continuous becoming and change is the reweaving of the relations between human and nonhuman business model actors. Actor-network theory has also been used to explain the creation of business models as the creation of actor networks (Doganova & Eyquem-Renault, 2009). Actornetwork theory is the primary methodological lens for understanding business model change in this thesis. The methods chapter provides an introduction to its unique methodology. Papers 5-7 illustrate business model change from an actor-network theory perspective.

#### 3.1.3. The Role of Devices

Devices were present in the business model change discussion from its early beginnings. For instance, Chesbrough and Rosenbloom (2002), state in their pioneering paper that 'the

<sup>&</sup>lt;sup>16</sup> Tsoukas and Chia assume a *human-centric* constructionism grounded in Berger and Luckman's (1966) 'social construction of reality' and related to Weick's (1995) sensemaking. Actor-network theory, which this thesis is rooted in, instead assumes *symmetry between human and non-human actors* in the construction process (McLean & Hassard, 2004; Walsham, 1997).

business model is thus conceived as a focusing device that mediates between technology development and economic value creation' (p. 532). However, I could identify only two publications that discuss the role of devices in business model change in depth.

The authors of the first publication, Doganova and Eyquem-Renault (2009) ask the question 'what do business models [devices] do?' They suggest that business models may be devices such as power point presentations or texts. These business model devices constructed the entrepreneurial venture of 'Koala', a web-based tourism enterprise. These devices acted as 'market devices' fulfilling narrative and calculative functions. When acting as a narrative device, a business model 'draws a world' (p. 1567) told through their story. When acting as calculative devices, they evaluate, reconfigure, and recreate actors to make them 'characters of the story told' (p. 1567). By doing so, business model devices build actor networks that enact a business model. A key characteristic of such devices is the ability to circulate across boundaries inside and outside the emerging actor network. During circulation they translate the business model logic into a variety of sites. The device accesses and relates to actors, such as investors or customers, in these sites. It enrols them to enact the business model as the business venture.

Doganova and Eyquem-Renault's paper is rooted in the entrepreneurial venture context. This context is little related to business model change in existing companies, which is the focus of this thesis. However, the paper provides a basis for understanding the agency of business model devices. Such agency is a topic relevant across papers of this thesis. Paper 5 is entirely focused on agency, on what the device 'does'. A major criticism of Doganova and Eyquem-Renaults' paper is that it appears to separate the business model device from the actor network (the business) it creates. This separation is not in the spirit of actornetwork theory, which tries to avoid such dichotomies (Chapter 4). The business model definition in the previous chapter instead suggests that all three, business model logics, devices and actor networks come together constructing and being one business model.

The second publication discussing the role of business model devices is an in-depth case study of the multinational kitchen appliances company SEB (Demil & Lecocq, 2015). The authors study the role of multiple devices such as documents, new departments and products in business model change. The processes leading to a changed business model in an established business differ from the venture context. Established businesses have a pre-existing business model actor network in place. Devices in the venture context, instead,

create a new business model actor network 'from scratch'. Demil and Lecoq explain business model change through devices changing the relations between the actors of the existing business model actor network. They theorize business model change as an effort of actors to 'craft or redesign various artifacts [devices] to contribute to business model change' (p. 38). These devices then change the actor network of the company, leading to a 'recombination of artifacts into a new network' (p. 38). The enactment by this new network leads to 'concrete modifications to the realities of a company' (p. 31).

The conceptual and empirical structure of Demil and Lecocq's paper closely relates to the work realized with The Company in this thesis (see Papers 5-7). Demil and Lecocq's paper was published after the first version of the thesis papers had been written, so there was close to no mutual influence in the making. However, the shared finding of both studies that business model devices may change business model actor networks serves as an additional warrant for the validity of both their and my research.

# 3.2. Corporate Responsibility-Sustainability Implementation Literature

This thesis is positioned in the corporate responsibility-sustainability implementation literature (Kleine & Von Hauff, 2009; Lindgreen, et al., 2009). This literature is focused on the 'how' (Hamann, 2003, p. 237) of responsibility-sustainability, on 'making it happen' (Isenmann, et al., 2011; Redington, 2005) and 'making it work' (Epstein & Buhovac, 2014). It is about achieving corporate responsibility-sustainability (Biondi, et al., 2002; Daily & Huang, 2001; Dincer & Rosen, 2004), making it operational (Perera-Aldama, et al., 2009), corporate responsibility-sustainability 'in action' (Epstein & Roy, 2001). It moves from the discussion of 'problems to solutions' (Fitch, 1976) and 'from issues to actions' (Bansal, 2003).

Much of this literature suggests a 'how-to', linear type of implementation towards an end-state of responsible and sustainable business. The pragmatic nature of 'how-to' is appealing and suggests high practitioner relevance. However, it also suggests that academics can have one-fits-all solutions to a variety of companies' distinct constructions of responsibility-sustainability (Van Marrewijk, 2003). Also the linear thinking behind an implementation that moves from an irresponsible and unsustainable corporation towards an end-state of 'achieved' responsibility-sustainability can be criticized. Additionally, much of the implement literature focuses on initiatives that are not core to a business, but rather 'bolted on' (Laszlo & Zhexembayeva, 2011). This thesis is positioned in a distinct type of

implementation rooted in research on embedding responsibility-sustainability into business models.

# 3.2.1. Embedding Corporate Responsibility and Business Models for Sustainability

The embedding discussion originates in the corporate responsibility field. The embedding corporate responsibility literature <sup>17</sup> is concerned with integration of responsibility across an organization, into heterogeneous aspects. It combines far and wide implementation. 'Far' implementation refers to embedding in multiple locations 'across' an organization.

Examples are the embedding across functions (Ethical Corporation, 2009; Grayson, 2011; Haugh & Talwar, 2010); strategic business units (Grayson, 2011); or the supply chain (Govindan, 2016; Spence & Rinaldi, 2014). 'Wide' implementation refers to embedding 'into' a variety of heterogeneous aspects of a company in parallel. Authors make reference to embedding into the aspects of structures (Perera-Aldama, et al., 2009); governance (Banerjee, 2011; Mason & Simmons, 2014); practices (Bartlett, 2009; Maon, et al., 2010); purpose (Rake & Grayson, 2009); culture (Bertels, et al., 2010); strategies (Harwood & Humby, 2008; Laasch, 2014; Laszlo & Zhexembayeva, 2011; Maon, et al., 2010); business disciplines (Laasch & Conaway, 2015; Smith & Lenssen, 2010) and company systems (Lozano, 2012). Paper 6 is focused on the embedding of responsibility-sustainability across and into multiple actors of The Company's actor network.

A second stream of the implementation literature, which is of high relevance for this thesis, originates from the corporate sustainability discipline. The business models for sustainability discussion connects business model and corporate sustainability discussions. It studies the role of business models in creating sustainability-oriented businesses.<sup>18</sup> It includes business models for sustainable development and corporate sustainability (Birkin, et al., 2009a; Birkin, et al., 2009b; Lueg, et al., 2015; Schaltegger, et al., 2012; Høgevold, 2011); 'green' business models (Boyd, et al., 2009; Henriksen, et al., 2012; Sommer, 2011; Tsvetkova & Gustafsson, 2012); and sustainability-oriented business models in the context

<sup>17</sup> 

<sup>&</sup>lt;sup>17</sup> The embedding corporate responsibility-sustainability literature is largely unrelated to the mature literature on the social embeddedness of companies. This literature is concerned with the embeddedness of an organization into society (Boons & Howard-Grenville, 2009; Dacin, et al., 1999; Granovetter, 1985; Polanyi, 1994). The embedding literature instead is focussed on how corporate responsibility-sustainability becomes embedded across an organization. The topic of this thesis is the latter, the embedding of the responsibility-sustainability across the organization, not the embeddedness of the organization into its social context.

<sup>18</sup> A parallel literature studies business models for social enterprise (Darby & Jenkins, 2006; Grassl, 2012; Müller, 2012; Pirson, 2012; Seelos & Mair, 2005; Sinkovics, et al., 2014; Yunus, et al., 2010). Also, there are related less consolidated discussions including the ethical evaluation of business models (Barnett, 1985; Sebastiani, et al., 2012; Shelley, 2003), corporate social responsibility (Slack, 2012) and humanistic business models (Laasch, et al., 2015).

of entrepreneurship, innovation and technology (Bohnsack, et al., 2014; Boons & Lüdeke-Freund, 2013; Hall & Wagner, 2012; Jolink & Niesten, 2013). Paper 2 is an in-depth review of the top-50-cited papers on business models for sustainability.

# 3.2.2. Embedding Responsibility-Sustainability into Business Models

In the previous chapter we defined corporate responsibility-sustainability as an interdisciplinary study drawing from the strengths of both the responsibility and sustainability fields. This thesis attempts to create interdisciplinary synergies by combining embedding from the responsibility field with business models for sustainability. Table 2 is a comparison of both concepts highlighting both their differences and shared aspects. Both concepts belong to the larger corporate responsibility-sustainability implementation literature. The resulting interdisciplinary study grounded in the case of The Company and the FTSE100 is concerned with 'embedding responsibility-sustainability into business models'.

Table 2 Embedding Responsibility and Business Models for Sustainability

	Embedding corporate responsibility	Business models for sustainability	
Disciplinary origin	Corporate responsibility	Corporate sustainability	
Process leading to	Embedding across a company into	Making sustainability part of	
implementation	heterogeneous aspects	business models	
Aspired end state	Widely and deeply embedded	Sustainability as part of a	
	responsibility	company's value logic	
Conceptual contact	The heterogeneous aspects of embedding mirror the heterogeneous actors in		
point	business model thinking.		
Shared ultimate goal	Creation of responsible and sustainable businesses		

The previous chapter had illustrated the convergence of the corporate responsibility and corporate sustainability literatures. Table 2 implies that embedding responsibility and business model change for sustainability may be a compatible, potentially synergetic, interdisciplinary match. The responsibility embedding literature is focused on various heterogeneous aspects, such as functions, incentives, or values, into which responsibility is embedded. Business models serve as an underlying core logic that is present in all of these aspects. The business model as a systemic concept may connect these heterogeneous aspects. Accordingly, it offers a unifying concept which ties together disconnected strands of the embedding literature each focussed on the embedding into one or few aspects. The business model concept therefore complements a weakness of the embedding literature. It constitutes a lens through which to study the processes of embedding between heterogeneous aspects.

In spite of the promising nature of the topic, I could only identify two publications studying the embedding of corporate responsibility-sustainability into business models. Short and colleagues (2013) use embedding as a metaphor for integrating sustainability into a company's 'core business', which in turn is used as a synonym for 'business model'. Roome and Louche (2015) suggest that embedding is one of the four fundamental processes necessary for a business model transformation towards social and environmental sustainability. They describe embedding as the way a company adapts sustainability across an organization.

# 3.2.3. The Role of Programs

In this thesis, corporate responsibility-sustainability programs play a central role. In The Company, I followed the newly introduced 'Being Responsible' program. The FTSE100 companies' business model descriptions were studied, to analyze how responsibility-sustainability programs had been embedded into them. Accordingly, the literature on responsibility-sustainability programs, (synonymously called initiatives), is another highly relevant discussion in the implementation literature. A large part of this literature is concerned with the influence responsibility-sustainability programs have on the perception of a company (Tetrault-Sirsly & Lamertz, 2007). These papers mainly study the perception among customers (Lii, 2011; Pomering & Dolnicar, 2009) and employees (Chong, 2009; Gupta & Pirsch, 2008; McShane & Cunningham, 2012; Rodrigo & Arenas, 2008). Many of the programs covered in this part of the literature are isolated from the core business and are run as time-limited campaigns. Prominent types of such initiatives relate to philanthropy, sponsoring and cause-related marketing (Lii, 2011).

A second, partly overlapping, part of this literature is concerned with the implementation of programs. A main question is how programs change companies towards responsibility-sustainability. This stream, in which this thesis is firmly positioned, is focused on more complex, enduring and advanced programs. Such programs are deeply institutionalized and address multiple causes (Pirsch, et al., 2007). They cover several sub-initiatives (Chong, 2009; Laasch & Conaway, 2011; Rodrigo & Arenas, 2008) and are closely related to an organization's mission, identity and core business (Laasch & Conaway, 2011; McShane & Cunningham, 2012; Tetrault-Sirsly & Lamertz, 2007; Yuan, et al., 2011). Such advanced programs continuously develop or even transform an organization to become more responsible and sustainable (Grayson, 2011; McShane & Cunningham, 2012). McShane and Cunningham (2012) call this 'continually becoming' of the program and of the

organization around it. This notion is closely related to 'change as organizational becoming', which was addressed in the context of business model change earlier in this chapter.

A number of publications on programs connect to aspects of the interdisciplinary study of embedding responsibility-sustainability into business models. For instance, Chesbrough (2012) explores how General Electric's 'ecomagination' program served as an (open) business model innovation initiative. Stubbs and Cocklin (2008) study how various sustainability programs of the carpet manufacturer Interface and of Bendigo Bank shaped these companies' business models for sustainability. Laasch and Conaway (2011) illustrate the embedding of the visual health program 'Del Amor Nace la Vista' into practices of the Cinépolis movie theatre chain. The publication most relevant for this thesis is Grayson's (2011) in-depth case study. He studies the large-scale program Plan A and its embedding across the food retailer M&S. Grayson traced Plan A through the company to understand its embedding across multiple locations and into heterogeneous elements of M&S. This setting closely resembles the research project at the core of this thesis, concerned with the embedding of the 'Being Responsible' program into The Company's business model.

# 3.3. Business Model Change through Embedding Responsibility-Sustainability

In the initial quote of this chapter Anna from Human Resources had suggested that the 'Being Responsible' program had become 'part of our [The Company's] whole business model' through its embedding. It had become 'a fine common thread throughout' [P59]. Apparently, the program had embedded responsibility-sustainability into The Company's business model. In the process, it had changed the business model. Graham from the CRS Team made this change explicit by stating that, 'to push forward the sustainability agenda that to me is the kind of change, structural change in our business model' [P17].

The topics of embedding responsibility-sustainability into business models and business model change went hand-in-hand in The Company. In the previous chapter business models were conceptualized as the dynamics between business model logic, devices and actor networks. Changing a business model accordingly involves change *in* one or several of these states or *between* them. Demil and Lecocq (2015) hint that such change might happen through embedding processes. They suggest that devices may be business model change agents due to 'the prescriptions [logics] embedded in artifacts [devices]' (p. 34). They also propose that business models 'emerge from and are defined by the webs of

relationships in which they are embedded [the actor network] '(p. 36). Together these statements suggest that devices and their logics may change the actor network. Accordingly, embedding corporate responsibility-sustainability may change devices, logics and actor networks. As a consequence it may change the business model as a whole. This thesis builds on this realization by proposing that the embedding of responsibility-sustainability into business model logics, devices and actor networks may change a business model as a whole. This proposition undergirds the preliminary conceptual statement which first had been made in the introductory chapter:

'Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel these dynamics.'

Across papers, I explore in depth such business model change through the embedding of responsibility-sustainability. Papers 3 and 4 are concerned with how responsibility-sustainability elements are embedded into the FTSE100 companies' business model *devices*. Papers 5-7 analyze how responsibility-sustainability becomes embedded in The Company's business model *actor network*. Changed business model *logics* become visible when enacted by the actor network (The Company) or inscribed in devices (FTSE100).

# 3.4. Summary

This chapter has provided an overview of the business model change and corporate responsibility-sustainability implementation literatures. It has identified the literature niches in which this thesis is positioned. In the business model literature this is business model change from an actor-network theory perspective. In the corporate responsibility-sustainability literature it is embedding responsibility-sustainability into business models.

Business model devices and responsibility-sustainability programs occupy a central role in business model change and embedding processes. They are the connection point between business model change and responsibility-sustainability implementation in this thesis. This chapter undergirds the initial conceptual statement. It had suggested that the embedding of responsibility-sustainability into business models may lead to business model change. Programs like The Company's *'Being Responsible'* may be devices for changing business models by changing their logics, devices and actor networks. Figure 7 adds the complete conceptual framework to the big picture of this thesis. The framework was introduced in the first chapter, but the last two chapters have anchored it deeply in the literature.

Figure 7 Big Picture after Chapter 3, 'Integrative Review'

# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

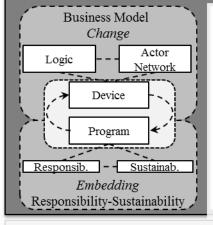
**Preliminary conceptual statement:** Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- Reality constructed by actor
- theory and institutional logics

#### Actor-network methodology

 Follow (human-nonhuman) actors

#### Qualitative methods

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

# B. PAPERS

	L	D	A N
P1:Normative business model	V	V	V
P2:Blending logics	/		
P3: Devices' combination	/	V	
P4: Inscription- description	~	V	
P5: Device agency	V	/	V
P6: Actor network		~	/
P7: Dynamics & change	/	V	~

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- III. Misalignment-tension-translation-change: Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

Business Model Discussions
☐ Dynamic states of business models
☐ Institutionalist business model research
☐ Emancipation from 'Business-Business Models
D A -t

Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- & Embedding and actor network theory
- \* Actor-network theory versus stakeholder theory?
- Textual device constructing organizational reality?

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

# 4. PHILOSOPHY, METHODOLOGY, METHODS

'I'm trying to understand how 'Being Responsible' (...) takes shape in different parts (...). Joe from infrastructure [P32] mentioned that (...) it touches upon what you're doing' [Interview Introduction to Martin, Infrastructure, P47]

This chapter is aimed at showing the combination of philosophy, methodology and methods through which the initial research problem 'How can responsibility-sustainability programs change business models?' is approached. First, the philosophy of social constructionism will be introduced. It will be shown how it applies to organizational institutionalism and actor-network theory. These are the two main theoretical-methodological lenses used across the thesis, to research the phenomenon of embedding responsibility-sustainability into business models. Secondly, actor-network methodology will be introduced. Finally, the research process will be illustrated stage-by-stage, presenting the main qualitative methods utilized. Most of the papers in this thesis have a dedicated methodology section. Accordingly, this chapter will be focused on overarching considerations that are of importance for this thesis as a whole, while creating minimal overlap with the papers. Table 3 serves to put reference made to papers into context.

Table 3 Overview Research Designs of Thesis Papers for Reference

Paper #: Short title	Lenses	Methods	Data
P1: Normative business model	Organizational institutionalism, economic sociology	Conceptual paper, illustrative case study	Semi-structured interviews at Arizona State University
P2: Blending logics	Institutional logics	Structured review, thematic template analysis	Top-cited business model articles
P3: Devices' combination	Institutional logics	Deductive thematic template analysis	FTSE 100 business model descriptions
P4: Inscription- description	Institutionalism, actor- network theory	Thematic template analysis	FTSE 100 business model descriptions
P5: Device agency	Actor-network theory, device agency, translation	Inductive thematic template analysis	The Company, interviews, observation
P6: Actor network	Actor-network theory, translation	Thematic template analysis; in-depth case study	The Company, interviews, observation
P7: Dynamics & change	Actor-network theory	Conceptual paper, illustrative case	The Company, interviews, observation

#### 4.1. Social Constructionism

This brief section outlines main characteristics of social constructionist philosophy. Constructionism serves as a connector between the main conceptual lenses used in this thesis. Both organizational institutionalism and actor-network theory have strong constructionist elements. Constructionism believes in 'the social construction of reality' (Berger & Luckmann, 1966). This means that actors continuously and collaboratively create 'a world in the process of social exchange' (Guba & Lincoln, 1994, p. 127). In the case of The Company, a variety of actors were involved into the construction of a new version of the business model (Papers 5-7).

#### 4.1.1. Key Characteristics of Social Constructionism

The following three characteristics are central to social constructionism as applied in this thesis. The first characteristic is the idea of 'subjective' realities. 'Versions and versions' of subjective realities emerge from distinct construction processes (Schwandt, 1994, p. 126). Distinct realities exist for distinct groups of actors involved in different constructions (Guba & Lincoln, 1994). This also implies that realities cannot exist without construction. They do not pre-exist construction, but are an outcome of it (Bryman, 2008; Stanford University, 2013). In our case, two co-existing realities of The Company were described. One was the 'efficient money making machine'. This reality had been constructed and reconstructed for many years. It had become a taken-for-granted way of how The Company was perceived. However, there also was an emerging 'new' reality of The Company as a responsible business. This new reality was constructed through actors of The Company's 'Being Responsible' initiative. These realities were understood by interviewees to co-exist and interrelate (Paper 6).

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<sup>&</sup>lt;sup>19</sup>Constructionist 'subjective realities' include both ontological and epistemological elements. However, constructionism questions the distinction between ontology and epistemology. Epistemology is the study of the nature of reality, and epistemology is concerned with how an observer can know this reality. In constructionism the nature of reality (at least partly) *is* the construction in the minds of human actors. Ontology and epistemology cannot be separated (Guba & Lincoln, 1994; Van de Ven, 2007). For instance, Latour and Woolgar (1979) explicitly question the need for epistemology.

<sup>&</sup>lt;sup>20</sup> In constructionist philosophy, the only way of knowing about a potentially existing world independent from the observer is through human meaning-making, a construction. One could say that it does not matter if an observer-independent world exists, as we can never perceive it objectively. As Schwandt (1994) outlines social constructionists do not deny the existence of such an 'essence' of the world independent from the observer. Social constructionism is not 'anti-essentialist'. However, it does not take for granted the existence of that essence as realist thinking does. Instead 'essence is non-essential' (Goodman, 1984). It does not matter if there is essence out there as our attempts to objectively perceive it are inherently flawed. We cannot distinguish between construction and possibly existing independent reality.

The second characteristic is the *relational nature of construction*. Construction is not understood as a process primarily 'within' actors, 'but between them' (Burr, 1995, p. 16).<sup>21</sup> Actors are understood to co-construct meaning in a relational process between actors. Particularly, in the context of this thesis, 'relational' should not be understood as a synonym for human. This thesis is oriented towards an actor-network perspective on social construction. Actor network theory understands the construction of reality through the relations between human and nonhuman actors (Latour, 2005; Law, 2009). The Company's business model was constructed through relations between actors such as the balanced scorecard, executive management and the values statement.

The third characteristic is understanding *construction as process*. Trying to find 'truths' about a reality is moot as 'constructions are not more or less "true" in an absolute sense' (Guba & Lincoln, 1994, p. 111). Accordingly, constructionist research does not look for objective truths. Instead, it is aimed at understanding construction processes and the resulting constructions as its outcome. Guba and Lincoln (1989) propose criteria to evaluate the quality of researchers' understanding of the outcome of construction processes. They propose the term of malconstructions which are 'incomplete, simplistic, uninformed, internally inconsistent, or derived by an inadequate methodology' (p. 143). However, equally important is understanding what leads to this outcome: 'Studying social construction processes implies that we focus more on the means by which organization members go about constructing and understanding' (Gioia, et al., 2012, p. 16). In The Company, the continuous construction of the business model was studied (Papers 5-7). Paper 6 starts out with showing the *outcome*<sup>22</sup> of the construction in the form of interviewees' perception of what The Company's business model was. It also shows the ongoing construction process through which corporate responsibility-sustainability becomes part of this construction. Table 4 summarizes constructionist aspects throughout the papers of this thesis.

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<sup>&</sup>lt;sup>21</sup> The difference in focus on individual construction and collaborative construction is also a main difference between social constructionism, as a social process, and its namesake social constructivism that stresses the construction through individuals (Young & Collin, 2004).

<sup>&</sup>lt;sup>22</sup> The word *outcome* has to be used with caution in a constructionist context. Social construction is always ongoing as it treats 'everything (...) as a continuously generated effect' (Law, 2009, p. 141). Constructions are subject to 'continuous revisions' (Guba & Lincoln, 1994, p. 113). Even if a construction appears transiently *stable* this should not be confused with a final end-state of construction (Callon, 1991). Outcome therefore refers to a snapshot of the construction process at a certain point in time, not a final outcome.

**Table 4 Papers and Their Constructionist Aspects** 

Paper #:	Short title	Constructionist aspects

P1: Normative business model	Business model construction as deep institutionalization driven by the relational process of social entrepreneurialism.
P2: Blending logics	'Ideal-type' commercial and sustainability logics are blended in actual businesses models.
P3: Devices' combination	Business model devices are combinations of commercial and responsibility-sustainability elements.
P4: Inscription-description	Business model devices are <i>inscribed</i> with responsibility-sustainability cares and elements. As a consequence they <i>describe</i> an altered business model logic.
P5: Device agency	Agency types of the 'Being Responsible' relate to 'translation' the process through which actor networks are constructed.
P6: Actor network	The interpretation of organizational members helps to visualize the business model actor network. The <i>'Being Responsible'</i> device changes (reconstructs) the actor network.
P7: Dynamics & change	Business model change can be explained as a construction process involving the interaction in and between business model logics, devices and the actor network.

# 4.1.2. Construction in Organizational Institutionalism and Actor-Network Theory

Many theoretical lenses come with philosophical preferences. This typically has methodological implications determining how research should be approached (Guba & Lincoln, 1994). This thesis applies two main lenses, organizational institutionalism and actor-network theory. These lenses were found the most fitting and complementary theoretical lenses for capturing business model logic (organizational institutionalism), devices and actor networks (actor-network theory). The methodologies of both lenses are related strongly to constructionism.

Organizational institutionalism understands organizing as oriented towards constructing legitimacy by conforming to demands of a complex institutional environment (Deephouse & Suchman, 2008; Greenwood, et al., 2008). Berger and Luckman (1966), pioneers of constructionism had first described institutionalization as social construction. Phillips and Malhotra (2008, p. 702) posit that 'institutionalization is the process by which institutions are constructed'. Constructionism is still very present in research related to organizational institutionalism. Prominent examples are the social construction of institutional logics (Thornton & Ocasio, 2008) and institutional work as a social construction process (Lawrence & Suddaby, 2006).

According to Suddaby and Greenwood (2009) three out of the four main methodological approaches in organizational institutionalism have elements related to social construction. In an 'interpretive' methodology the construction of institutions is explained by how actors make sense of institutionalized practices. The 'historical' methodology reconstructs past construction processes that led to present institutions. The 'dialectical' methodology may rely on de-construction of institutions to critically examine inherent power relations.

The social construction process of institutions is often assumed to take the form of discourse (Phillips & Malhotra, 2008). As a consequence the study of institutionalization involves the analysis of discourse (Lawrence & Suddaby, 2006; Phillips & Malhotra, 2008; Schmidt, 2010). Actor-network theory has been proposed as a promising alternative lens for studying the social construction of institutions. Lawrence and Suddaby (2006) describe how actors may construct institutions through their interaction as one way of understanding institutional work. They suggest that 'actor-network theory offers a fresh perspective (...) in understanding how institutions are created, maintained and disrupted' (p. 242). Sahlin and Wedlin (2008) showcase how this suggestion may be operationalized. They use circulation and translation, concepts rooted in actor-network theory, to explain the diffusion of institutional elements. Lawrence and Suddaby (2006) propose that the alignment of all actors leads to institutionalization and suggest that institutionalization processes may be understood and studied in novel ways through actor-network theory. They explicitly make reference to the concept of translation (Callon, 1986; Callon, 1991) as a promising avenue for such study. So do Owen-Smith and Powell (2008) who explore the intersection between networks and institutionalism.

In Paper 1 of this thesis, organizational institutionalism dominates. However, the paper also connects to actor-network theory. It explores 'deep institutionalization' processes of a business model. This process relies on both circulation of business model devices and on their translation. Papers 2-4 apply organizational institutionalism by focusing on the social construction of institutional logics as they influence business model logics. Paper 5 and 6 are dominated by an actor-network perspective. Paper 7 is built on actor-network theory, but also discusses how its findings may contribute to organizational institutionalism.

Actor network theory *is* a constructionist methodology. The shaping of an actor network is considered a process of social construction (Cordella & Shaikh, 2006; Latour & Woolgar, 1979; Van de Ven, 2007; Walsham, 1997). Actor-network theory is characterized by many unusual ontological assumptions and resulting methodological necessities that are

controversial and often little understood (Alcadipani & Hassard, 2010; Nimmo, 2011). Given its controversial status and its use as primary lens, the methodology of actornetwork theory will be illustrated in greater depth in the following section.

# 4.2. Actor-Network Methodology

The primary lens applied throughout this thesis is actor-network theory. It originated in science, technology and society studies. Authors laying the groundwork in the late 1980s are Michel Callon, Bruno Latour and John Law. Since then actor network theory has been applied to a variety of other fields, including management and organization studies.<sup>23</sup> One might wonder why a 'theory' is covered in this chapter which is focused on methods and methodology. According to Latour (1999, p. 199) actor network theory considers the word theory in actor-network theory a misnomer. Instead he stresses its methodological nature.

'Actor-network theory was simply another way of being faithful to the insights of ethnomethodology: actors know what they do and we have to learn from them not only what they do, but how and why they do it.'

Along these lines, Lee and Hassard (1999) call actor-network theory a research strategy. Cordella and Shaikh (2006) stress its unique assumptions about the nature of reality, which determine an appropriate use of an actor-network *methodology*. Miettinen (1999, p. 171) calls it 'a program of methodological provocations'. Nimmo (2011, p. 108) suggests that actor-network theory 'is more widely known than well understood' and that it requires understanding how ontological 'ideas translate into methodological practice'. The last two statements allude to actor-network theory as a 'controversial approach' (Alcadipani & Hassard, 2010) and to its 'intimidating ontological complexity' (Cressman, 2009, p. 1). It has often been criticized for its methodological premises (Winner, 1993).

This section will show how central tenets of actor-network theory become methodological principles relevant for this thesis. Related criticisms will be discussed and it will be shown how they have been taken into account across papers.

<sup>&</sup>lt;sup>23</sup> Actor network theory articles have been published in leading management and organization journals. Examples include AMR (Calás & Smircich, 1999; Newton, 2002); *JMS* (Bloomfield & Danieli, 1995; Knights, et al., 1993; McLean & Hassard, 2004); *Organization Studies* (Whittle & Spicer, 2008), *Human Relations* (Hawkins, 2015); and *Organization* (Alcadipani & Hassard, 2010; Hansen & Mouritsen, 1999; Hull, 1999; Lee & Hassard, 1999; Munro, 1999; Woolgar, et al., 2009).

<sup>&</sup>lt;sup>24</sup> Latour and Woolgar's (1979) early actor-network theory study is considered foundational to constructionism (Van de Ven, 2007). However, actor-network scholars are often cautious to highlight points of difference with constructionism and constructivism more broadly (Cordella & Shaikh, 2006; Latour, 1999).

# 4.2.1. From Heterogeneity to Analytical Symmetry

Actor-network theory understands realities as enacted by actor networks. These networks consist of relations between 'all kinds of actors including objects, subjects, human beings, machines, animals, "nature," ideas, organizations, inequalities, scale and sizes, and geographical arrangements.' (Law, 2009, p. 141). Accordingly, 'an actant can literally be anything provided it is granted to be the source of an action' (Latour, 1996). The term 'actant' expresses that there is no a priori distinction between human and nonhuman actors when they form heterogeneous (human-nonhuman) networks.

This symmetry between humans and nonhumans is controversial (Cerulo, 2009; McLean & Hassard, 2004; Walsham, 1997). A major criticism is that nonhumans lack human characteristics necessary for action (Jones, 1996; Lee & Brown, 1994; Murdoch, 2001; Rose & Jones, 2005; Vandenberghe, 2002). Actor-network theory retorts that humans cannot act without nonhumans either (Cordella & Shaikh, 2006; Jensen & Blok, 2013). A main methodological consequence is to create 'analytical symmetry' (McLean & Hassard, 2004, p. 493). This means to avoid too strong a focus on one actor type '(symmetrical absence'). Nor should researchers promote too strong a sense of symmetry ('symmetrical absurdity'). In this thesis human and nonhumans have been analyzed symmetrically as parts of actor networks (Papers 5, 6). Their distinct characteristics were highlighted where analytically convenient, for instance, in the description of the relationship between the device 'Being Responsible' and its human chaperons (see Papers 5-7).

# 4.2.2. From Punctualization to Black Boxing

Callon (1991) introduces the term punctualization for a network that has become aligned so strongly that it appears to be just one actor. However, punctualization can also break up. In 1989, the Californian Interstate-880-highway collapsed. The disaster revealed its inner relations between actors such as engineers, steel beams, politicians, concrete pillars, and residents (1993). Law (1992) proposes two resulting methodological tactics. Researchers may reduce complexity 'black-boxing' a whole actor network or opening up black boxes and analyzing the network inside. Black boxes may open up automatically through controversies such as the one of the collapse of Interstate-880 (Cressman, 2009). To 'feed off the controversies' is a central methodological principle (Latour, 2005; Venturini, 2010). In The Company a controversy around performance issues involved the business model actor network (Papers 5, 6). Additionally, the network gained visibility through the misalignment between the responsibility-sustainability-network and the 'efficient-money-

*making-machine*' network. Paper 6 opens black-boxed business model actors such as the corporate headquarters and executive management to analyze internal change processes.

# 4.2.3. From Translation to 'Follow the Actor'

How are realities constructed in actor-network theory? The answer is 'reality emerges through the interplay of actors (...) reality becomes "real" when actors interact' (Cordella & Shaikh, 2006). Realities are constantly enacted and performed by the actor network made of these relational processes (Cressman, 2009; Law, 1992; Law, 2009). 'Translation' describes these processes through which actors associate (Callon, 1986a; Callon, 1991). They give each other meaning as they 'define and shape one another'. In The Company case the 'Being Responsible' device drove translation. It enrolled actors including products, employees and the balanced scorecard to enact responsibility-sustainability and to make it a reality.

Studying translation begins with a 'focal actor' (Bengtsson & Ågerfalk, 2011; Callon, 1986a; Lee & Oh, 2006; Miettinen, 1999; Sarker & Sidorova, 2006). This actor circulates through the actor network and engages in translation (Gherardi & Nicolini, 2000; Latour, 1999; Sahlin & Wedlin, 2008). The resulting 'chain of translation' reveals the actor network (Harrisson & Laberge, 2002; Heeks & Stanforth, 2007; Latour, 2010; Pipan & Czarniawska, 2010). 'Being Responsible' was such a focal actor. I started my data collection at its point of origin in the CRS Team to then move on and identify further actors which it related to. For instance, interviews with the responsible sourcing manager revealed that 'Being Responsible' translated into procurement, which in turn related to suppliers. The introductory quote of this chapter illustrates this 'purposive snowball sampling' process through which I traced 'Being Responsible'. It involved one actor [Joe from infrastructure, P32] recommending another actor [Martin, Infrastructure, P47] which the first one knew was involved in the program. Boundaries of the study emerged during data collection (McLean & Hassard, 2004). Data collection stopped when no new types of relations of 'Being Responsible' were found. This suggested that the chain of translation and with it the actor network had been mapped and that data saturation had been reached (Morse, 1995; Sandelowski, 1995).

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<sup>&</sup>lt;sup>25</sup> An alternative label for the relational process is Latour's (2005) notion of 'assembling' networks. 'Assembling' and 'reassembling' mirrors 'construction' and 'reconstruction' in general constructionist thinking (Alcadipani & Hassard, 2010; Cordella & Shaikh, 2006).

# 4.2.4. From Non-Dichotomies to Unity

The list of dichotomies 'rubbished' (Law, 1999, p. 3) by actor-network theory includes human-nonhuman, materiality-sociality, global-local, big-small, micro-macro, subject-object, structure-agency, inside-outside, context-content and before-after (Callon & Law, 1997; Latour, 1996; Law, 1999; McLean & Hassard, 2004). Searching for unity has been central to this thesis research. An example from The Company case (Papers 6, 7) is the description of 'corporate headquarters', 'executive management' and 'commercial operations'. These actors would usually be divided through hierarchical levels. However, these hierarchies were 'flattened' by equally considering them actors in the network (Latour, 2005). Another example is institutional logics which in other approaches might be considered an external influence. However, in this thesis they are understood as internal to the business model actor network. They become an actor in the form of 'organizational value logics' (Paper 2) that shape devices and actor networks.

#### 4.2.5. From Irreductionism to 'No Shortcuts'

'Actor-network theory prefers to travel slowly, on small roads, on foot and by paying the full cost' (Latour, 2005, p. 23). This 'irreductionist' nature (Latour, 1996, p. 370) implies the need to avoid methodological shortcuts. The first shortcut to be avoided is to rely on pre-conceived concepts and a-priori categories: 'The reliance on theory to "frame" reality does not constitute the success of research, but rather its failure to sufficiently trace associations and connections' (Baiocchi, et al., 2013, p. 336). A second shortcut relates to the representation of actor accounts. Researchers might be tempted to summarize actor accounts or to rephrase in their own language. However, this may hide, censor, or silence actors' voices (Callon, 1986a; Law, 1991; Venturini, 2010). A consequence is the use of in-depth case studies with rich description as preferred form of presentation. However, this often leads to issues when length restrictions impede the required depth of description (McLean & Hassard, 2004; Walsham, 1997). For instance, Papers 5-7 of this thesis used to be one paper. However, it had to be split up as sufficiently deep and rich description was not possible in just one paper.

#### 4.2.6. From Neutrality to Constructing Meaning

Actor-network theory has often been criticized as being overly neutral, including a lack of moral judgment, critical reflection and political agenda (Alcadipani & Hassard, 2010; McLean & Hassard, 2004; Walsham, 1997; Winner, 1993). It is understood to provide excellent description, but little judgment. Anecdotal evidence challenges this criticism.

Holified (2009) uses actor-network theory critically in the context of environmental justice. Williams-Jones and Graham (2003) analyze the ethics of genetic testing. Also, pioneers of actor-network theory have been involved in projects addressing these shortcomings. The ideas of 'performativity' (Callon, 2007) and 'ontological politics' (Law & Urry, 2004) are conceptual tools for constructing desirable realities. 'After ANT' stresses critical application (Gad & Jensen, 2010; Law, 1999; Law & Hassard, 1999). Latour's 'modes of existence' problematize values (Latour, 2013a; Latour, 2013b; Tresch, 2013). Also, it has been argued that an application of actor-network theory on socially meaningful issues may help to better understand them (Venturini, 2010). Positioning this thesis in the issue of integrating responsibility-sustainability in companies is an example.

# 4.3. Qualitative Methods and Research Process

As outlined above, actor network methodology is profoundly qualitative. So is the larger philosophical undergirding of social construction:

'Studying social construction processes implies that we focus more on the means by which organization members go about constructing and understanding their experience and less on the number or frequency of measureable occurrences.' (Gioia, et al., 2012, p. 16)

Qualitative research is characterized by a wide variety of methods to choose from (Bluhm, et al., 2011). Qualitative research designs vary widely as there is no common template (Pratt, 2009). Accordingly, qualitative researchers should be flexible and creative while applying some basic principles (Bansal & Corley, 2011). This thesis applies a varied set of qualitative methods along the stages of the research process. Each paper includes a deep description of the rationale for and the structure of the unique combination of methods. Therefore, the following sections are focused on methods throughout the different stages of the research process and across papers.

#### 4.3.1. Research Design: Initial Positioning

When my involvement in this research project started, central elements were given. The phenomenon to be researched was fixed as the intersection between corporate responsibility-sustainability and business models. Access had been ensured to the initial research site of The Company. The initial research problem, 'How can responsibility-sustainability programs change business models?' originated from this setting. This 'how'

question, typical for qualitative research, led to a qualitative research design (Pratt, 2009; Walsham, 1995).

The Company will be presented as an individual in-depth case study (Yin, 2003). Such cases suit a constructionist actor-network methodology (Järvensivu & Törnroos, 2010; Scapens, 2004; Walsham, 1997). Data collection in such cases 'involves frequent visits to the field site over an extended period' (Walsham, 1995, p. 74). To observe change, data collection was organized as a long-term interaction with several deep immersion stages. The overall duration was 30 months, with 11 weeks of on-site immersion. It was agreed that anonymizing The Company's identity would best suit all parties: Interviewees were able to be confident to speak openly without worrying about external perception. I was granted deep access into the CRS Team. I was also allowed to roam freely and unaccompanied within the company. This was necessary for following the 'Being Responsible' program actor.

Only Papers 5-7 of this thesis are based on The Company. Nevertheless, it was starting point and centre of all research activities. Other papers were written to accompany and complement The Company research. The 'normative business model' in Paper 1 helped to identify conceptual lenses that would fit The Company case. The comparative structured literature review in Paper 2 helped to better understand the relationship between sustainability and commercial logics. This relationship was a recurrent theme in The Company. Papers 3 and 4, analyzing the FTSE100 business models served to contextualize The Company's in-depth case study data by a larger sample of similar companies.

# 4.3.2. Data Collection: The Company and FTSE100

Across papers, a variety of data types has been collected (Table 3). The focus in the following description will be on the two main sources of data each of which influenced multiple papers: Business model descriptions of the FTSE100 (Papers 3, 4) and triangulated case data of The Company (Papers 5-7).

The selection of both empirical contexts was primarily through purposive sampling (Coyne, 1997; Palys, 2008). Each context was likely to provide insight into the initial research interest: Understanding how responsibility-sustainability programs change business models. The Company had been selected, before I entered the research project, due to the likely influence of its responsibility-sustainability activities' on the business model (Papers 5, 6). The FTSE100 were required to merge responsibility-sustainability and business models in

their annual reports published in 2014 (Paper 3, 4). The selection of both contexts also was a convenience sample (Marshall, 1996). The FTSE100 reports were publicly available and access to The Company was provided to the researcher.

**FTSE100 Data.** The FTSE100 companies' annual reports were freely available and could be downloaded from company websites. The corporations were required to include business model content in the beginning of their strategic reports. Texts and figures located in this section were isolated for analysis. Papers 3 and 4 used distinct filters to identify reports with relevant responsibility-sustainability elements for the analysis. This led to 56 companies (Paper 3) and 39 companies (Paper 4) analyzed in depth.

The Company Case Data. In The Company case, theoretical sampling was applied to continuously adjust the direction of data collection (see section 'follow the actor' this chapter). Sampling was also directed by developments in the researcher's parallel theorizing efforts (Coyne, 1997; Draucker, et al., 2007; Eisenhardt & Graebner, 2007). As illustrated in Table 5, semi-structured interview questions were distinct in the three main stages of the research project. During fieldwork preparation, an initial appreciation of corporate responsibility-sustainability and The Company business model was the goal. It followed a series of interviews with the key informant. The goal was to find out what theoretical approach to business models change would best fit the phenomenon in The Company. Actor-network theory appeared to best reflect The Company context as it resonated most with the informant. Also, it was consistent with the insight from initial interviews. <sup>26</sup>

During the first on-site *immersion* I assumed a position of an involved researcher (Walsham, 1995). The activities included conducting interviews; organizing research workshops; shadowing team members; advising in ongoing projects; as well as participating in team activities such as meetings, lunches and 'away days'. Interviews and observations led to an appreciation of how actor-network theory could describe corporate responsibility-sustainability and business model change in The Company. It helped to locate primary actors such as 'executive management' and 'commercial operations'. It also confirmed that 'Being Responsible' did circulate through The Company's wider actor network. The size and form of this network, however, could not be understood from *inside* 

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<sup>&</sup>lt;sup>26</sup> From beginning to end of the project, the key informant was the director of the corporate responsibility-sustainability team. During the fieldwork preparation phase we had regular monthly calls during which we discussed my theoretical approach and preliminary ideas.

the CRS Team. Accordingly, the second immersion involved data collection across The Company.

The second *immersion* followed in the 'chain of translation' of the 'Being Responsible' device across The Company. Interview questions were aimed at gaining an appreciation of the larger actor-network and at finding out how and where 'Being Responsible' had acted. This last leg of research was influenced strongly by the main data collection principle of actor-network methodology, 'follow the actor'. As Latour (2005, p. 313) posits, limiting the boundaries of actor-network theory research upfront or to exclude parts of the actors' world would be 'a grave methodological mistake' as 'the observer should not exercise censorship' (Callon, 1991, p. 143). Following the 'Being Responsible' device, led the way in the exploration of the actor network. As a consequence, it could not be predefined, where data collection would lead.

Data collection compiled 104 interviews with 72 interviewees. Thirty-four interviewees were located in the headquarters environment, 21 in executive management, and 16 in commercial operations. Papers 5 and 6 include tables with interviewee distribution and characteristics and Appendix 1 is a full list of interviewees. Interviews were triangulated through participant observation (Atkinson & Hammersley, 1994; Jorgensen, 1989; Waddington, 2004) in a qualitative field diary (Symon, 2004) of approximately 37'000 words. I also collected 120 internal documents such as reports, presentations, and newsletters, and 71 weekly summaries of external news items.

**Table 5 Evolution of Interview Designs in The Company** 

	Item*	Topic and purpose	Interview description and topics
	Introductions/	A. Appreciating case context	45 minutes largely unstructured introductory interviews among wider CRS Team with two main prompts:
Fieldwork preparation	May 2013; 6/6	B. Business model description	A. Please describe your role in the CRS Team and in The Company.
ara	C.	A. D. E. alassed as a Cl. advance	B. What is The Company's business model for you?
e bi	Co-	A, B: Exploration of business model as suitable conceptual	One-on-one interviews 30-90 minutes with key informant on following topics:  A. Applicability of the business model concept on The Company
<u>r</u>	development of research	lens	B. Relationship between business model and 'Being Responsible'
ork	project/ Aug		C. The Company approach to business model change processes
×	2013- May	C, D, E, F: Exploring distinct	D. Drafting an actor-network map of The Company business model
iel	2014; 7/1	lenses for conceptualizing	E. 'Being Responsible' in distinct locations and of bottom-up vs. top-down change
<b>Ξ</b>	,	business model change	F. Longitudinal multi-level change processes
	Interviews/	Week 1 A, B, D: Different	Recurrent in-depth interviews with all members of CRS Team
	Jun-Jul 2014;	translations and actor-networks	Week 1: 'Signing up actors'
	32/13	of 'Being Responsible'	A. Purpose: What is the purpose/function that your area should contribute to 'Being Responsible'?
		Week 1 C: Struggles in	B. Critical actors: Who are the actors (human + nonhuman) you need to sign up, to make this happen?
		translation	C. Drivers & inhibitors: Why might these actors come/be on board and/or what might keep them from doing so?
_		Week 2 D. Ammeniation of	D. Actor network: Which ones are the actors that are already working with/for you?  Week 2: 'Enabling learning
, u		Week 2 B: Appreciation of distinct locations of actor	A. What are the different groups that (need to) learn and innovate so that <i>'Being Responsible'</i> can fulfil its purpose?
rsi		networks (headquarters,	B. (How) does 'local' learning and innovation reconnect to organization-wide learning?
Immersion 1		executive management,	Week 3: 'Transformation'
H		commercial operations)	A. What similar past initiatives were there and how do they relate to 'Being Responsible'?
		Week 3: Contextualizing case	B. How were past initiatives influenced by external and internal factors?
		and longitudinal perspective on	C. (How) Does/will 'Being Responsible' transform The Company?
		change	D. In what spaces does that transformation happen, (how) are these spaces protected from resistance?
	XX7 1 1 /		E. What would be The Company of the future 5 and 15 years, if 'Being Responsible' has done its job?
	Workshops/ Jun 2014; 3/12	Same as for week 1-3 and member validation	Focus groups sessions with all members of the CRS Team reviewing and discussing findings, same themes as interviews week 1-3 above.
	Cross-	A. Human actors profiles	A. Baseline function/role relationship of 'Being Responsible': Describe what you do in relationship to 'Being Responsible'?
7	company	B. Critical actors	B. Actor-network theory/enrolment: Key actors, systems, tools, processes, documents, institutions; who/what must be on board?
ion	interviews/	C. 'Being Responsible' agency	C. Device/ agency: What would be different if 'Being Responsible' would not exist? What does 'Being Responsible' do?
ersi	Sept- Oct	D. Business model and actor-	D. Change, struggles, commercial vs. social: Past social activities? Drivers/inhibitors for 'Being Responsible'? What is the business
Immersion 2	2014; 51/53	network maps	model? Relationship to business model, between commercial and social activities ('worlds') of The Company?
H	Key	A. Translation into device	A. Impact of social and ethical issues in The Company on 'Being Responsible'
	informant; 2/1	B. Obligatory points of passage	B. Discussing motivations for involvement of actors in 'Being Responsible' from interviews up to then
	Interviews/	A: Member validation of	Additional data & presentations of findings
Follow-	Jan –Jun 2015; 3/3	findings B. Irreversibility of program	<ul><li>A. Impact of recent commercial struggles on the future of 'Being Responsible'</li><li>B. Presentation and cross validation of preliminary findings with directors of the CRS Team</li></ul>
Fol	3/3	b. Hieversionity of program	b. Fresentation and cross varidation of premininary findings with directors of the CRS Team

<sup>\*</sup>Format/ timing; interviews/interviewees

# 4.3.3. Analysis and Theorizing: Thematic Template Analysis

The papers in this thesis are based on distinct combinations of analysis and theorizing methods. An in-depth description of these methods is included in each of them. Most of the papers are based on variations of the thematic template analysis method (King, 2004; King, 2013). Thematic template analysis is a marriage of two methods. Thematic analysis identifies patterns, called themes, in data (Boyatzis, 1998; Braun & Clarke, 2006). Template analysis organizes such themes into a coherent structure called a template (Crabtree & Miller, 1999). The method includes four main steps:

- 1. *Data exploration:* During an 'initial exploration of data' (Crabtree & Miller, 1999, p. 167) an informal pre-coding is conducted to create an intuitive appreciation of what is in the data. This step serves the goal of finding initial inductive codes and/or detecting the presence of relevant concepts from the literature, in the data. Data exploration is also used to extract relevant datasets out of the complete corpus (Braun & Clarke, 2006).
- 2. *Initial template:* Initial themes identified during data exploration are grouped into an initial coding template. Template themes may be deducted from literature (matching themes observed in data with known concepts) (Lambert & O'Halloran, 2008), inductively (salient themes from data) (Pehlke, et al., 2009) or both (Fereday & Muir-Cochrane, 2006; Waring & Wainwright, 2008).
- 3. *Coding and revision*: All data relevant for answering research questions is coded. During this coding, initial themes are modified to reflect the data structure (King, 2004). The process is continuous and runs through recurrent iterative coding rounds for refinement (Vaismoradi, et al., 2013). Also during the revision stage, matches with the literature can be made to further qualify the template (Lambert & O'Halloran, 2008). The qualitative data organizing software NVivo was used extensively for revising and reorganizing the data (*Appendix 2* and *Appendix 3*).
- 4. *Template finalization:* The template typically consists of several levels of themes and sub-themes. It can be considered final if all relevant data has been included into the coding and when the codes have been reviewed multiple (typically 3-4) times (King, 2004). Final templates should also represent a larger set of criteria assessing rigor in thematic template analysis (Braun & Clarke, 2006; King, 2004).

The method matches this thesis project in numerous ways. It has been recommended for large and heterogeneous amounts of textual data as they emerged from The Company case (Waring & Wainwright, 2008). The method fits multiple research paradigms and is particularly suited for constructionist research (Braun & Clarke, 2006; Vaismoradi, et al., 2013). It can be used for 'qualification' (Vaismoradi, et al., 2013) of predefined themes. This is helpful when exploratively opening up 'black boxes' as it is required in the actornetwork theory research. It also helps exploring novel, vaguely defined concepts such as sustainability-oriented business models in Paper 2 (Vaismoradi, et al., 2013).

Thematic template analysis has been recommended to increases the rigor of qualitative research (Fereday & Muir-Cochrane, 2006). The method transparently and systematically connects rich data through multiple levels of themes to the higher order themes and on to findings (Gioia, et al., 2012). It has been applied for interpretive studies of perception (McCluskey, et al., 2011), such as the analysis of The Company employees' perspectives on their business model (see Paper 5). It is flexible enough to be applied on a range of research questions such as the variety of application across papers of this thesis (Table 6).

**Table 6 Thematic Template Analysis Designs** 

Paper* Topic	Purpose/ data source	1. Data exploration	2. Initial template	3. Coding & revision	4. Template finalization
P2: Blending logics	Identify distinct themes between literatures/ abstracts of top 50-cited sustainability and commercial business model articles	Skim reading of all abstracts and verification to what degree instances of value proposition, creation, exchange, capture could be identified	Value proposition, creation, exchange, capture as 1 <sup>st</sup> order themes deducted from business model literature	Qualification of initial themes through inductive development of themes inside initial codes	11 (commercial) 14 (sustainability) business model sub-themes (Figure P2. 3 and Figure P2. 4) / three rounds of template refinement, one substantive reorganization after receiving major revisions request from journal reviewers
P3: Devices' combination	Find evidence of combination mechanisms/ business model descriptions in annual reports	Identifying instances of combined commercial and responsibility- sustainability logics in 10 business model descriptions	Themes of six combination mechanisms that were developed deductively from business model and hybrid organizing literatures	Qualification of initial themes through inductive development of themes inside initial codes. Inductive modification of model after moderate mismatch with data	Evidence of six combination mechanisms, exemplified by three instances of every mechanism from codes (Table P3. 2)/ Two reorganizations of original template data necessitating adjustment in description of mechanism (coupling vs. combination)
P4: Inscription- description	Identify what groups of responsibility-sustainability cares had been embedded into business model texts (RQ1) and what positions of the business model visual responsibility-sustainability elements were embedded in (RQ2)	Identifying instances of cares (RQ1) and responsibility-sustainability logic elements (RQ2) in all business model descriptions	25 themes of inductively clustered cares (RQ1) and deductively derived value proposition, creation, exchange, capture, as in Paper 2 above (RQ2)	Merging and splitting initial codes (RQ1) and qualification of initial themes through inductive development of themes inside initial codes (RQ2)	18 clusters of types of cares (RQ1) (Table P4. 1); 25 sub-themes (RQ2) (Table P4. 2)/ Two (RQ1) respectively three (RQ2) rounds of coding
P5: Device agency	Exploration of the types of agency the 'Being Responsible' device developed and how it engaged in translation/ 51 interviews across company, two interviews in CRS Team	Identification of statements describing what 'Being Responsible' did across 10 interviews as pilot coding.	Seven inductive thematic clusters of similar codes in table without assigning titles	Inductive coding of all statements (53 interviews) of what 'Being Responsible' did, to thematic clusters. Clusters were added, existing ones split up or merged based on codes.	Five types of agency of 'Being Responsible' device, resembling Callon's four modes of translation (Table P5. 2)/ Two coding rounds, final triangulation with participant observation data
P6: Actor network	Identification of interviewees' perception of business model actor network (only RQ1 as RQ2 does not use thematic template analysis)/ 52 interviews across company	Identification of human and nonhuman business model actors (RQ1) across 10 interviews	Twenty-five inductive initial thematic clusters without assigning titles	Proliferation of clusters up to 54 after first coding of all interviews, then reduction by merging, splitting and assigning subthemes to first order themes	Seven first-order themes (punctualized business model actors) with 28 subthemes (actors inside punctualized actors) (Figure P6. 1)/ four coding rounds, informed by parallel actor-network map (Figure P6. 2) development and triangulation with participant observation data

<sup>\*</sup>Papers 1 and 7 were not included as they did not rely on the method. Instead they employed cases as illustrations of conceptual models (Corry, et al., 1997; Hafez, 2006).

#### 4.3.4. Presentation and Rigor

Can we trust the findings? Is the research rigorous? Rigor in research can be paraphrased as what helps 'distinguishing "good" from "bad" research' (Davies & Dodd, 2002, p. 288). Rigor in qualitative research is controversial. Increasing rigor might serve to understand the variety of qualitative approaches through a shared understanding of what constitutes good research. However, it might also stifle creativity, interfering with one of the main strengths of such research (Sandelowski, 1993; Whittemore, et al., 2001). Another controversy is if rigor criteria from quantitative research should be reinterpreted for qualitative research (Golafshani, 2003; Krefting, 1991; Morse, et al., 2002; Sandelowski, 1986), or if there should be new criteria (Davies & Dodd, 2002; Whittemore, et al., 2001). Yet another controversy is how to deal with disciplinary rigor criteria in research that is an interdisciplinary bricolage (Kincheloe, 2001). Several catalogues have emerged from this discussion about good research (Davies & Dodd, 2002; Krefting, 1991; Sandelowski, 1986; Whittemore, et al., 2001). Table 7 provides an overview of criteria considered and measures taken in this research project.

How rigor is demonstrated to readers is a key criterion for good research. A main consideration is if a reader can trace the research process from problem to data collection, to analysis, and on to findings (Gioia, et al., 2012; Morse, et al., 2002). How to achieve such traceability? A detailed methods section should illustrate all major steps taken throughout the research process (Bansal & Corley, 2012). All of the empirical papers in this thesis (Papers 2-6) include such a section. Most sections are a description of stages in the research process to ensure traceability. Particular attention has been paid to ensuring that described methods closely correspond to actual research activity (Sandelowski, 2000). Also, the reader should be able to see the trail of transformations from data to theory. Fundamental for establishing this trail was the verbatim transcription of most (91 out of 104) interviews (Poland, 1995). The use of the qualitative analysis software NVivo for all data made this enormous body of data manageable. NVivo also served to link the original data to final presentations (Carvajal, 2002; Wickham & Woods, 2005). In most papers higher order themes have been presented in combination with the sub-themes and extensive samples from original data. They were typically presented in figures resembling Gioia's recommendations for rigorous data structure presentation (Gioia, et al., 2012). Findings are often presented as 'thick description' (Denzin, 1989; Geertz, 1973; Ryle, 1971). They go beyond the 'thin' description of mere fact by providing detail, meaning,

context, process and relations (Ponterotto, 2006). Thick description suits the need of actornetwork theory to show how the network construction evolves in detail (Bleakley, 2012; Nimmo, 2011; Roberts, 2012). A good example is Paper 5. It describes not only the characteristics of the *'Being Responsible'* program. It also includes the context that had led its creation, the process of its emergence and how it related to other actors.

Another salient presentation characteristic is the entanglement of empirics and literature. Bansal and Corley (2012) suggest 'data are needed to give the theory context, and the theory is needed to give the data meaning.' Also in an actor-network methodology empirical cases and theory are tightly interwoven (Law, 2009). The conceptual Papers 1 and 7 not only rely on illustrative case sections, but also use case data for illustration in literature review sections. So do Papers 2 and 3 in the conceptual development before analysis. Papers 4-6 follow Bansal and Corley's (2012) proposition of back-heavy qualitative papers. Initial theoretical development is very brief, the findings section long and detailed with an in-depth discussion section towards the end.

# Table 7 Measures of and for Qualitative Rigor in Constructionist Research

#### Recommendations

#### Measures and considerations

Validation: Mechanisms built into the research process, which ensure that misrepresentations or conceptual errors are identified and remedied on an ongoing basis (Morse, et al., 2002; Sandelowski, 1993).

Across papers/thesis: In-depth conversations and reviews of coding activity, interpretations, and findings with four other researchers involved in similar projects, in the 'Innovation for Sustainability' network and of the Academy of Business in Society (5 presentations); through journal (3 submissions) and conference peer review processes (3 conferences) and at internal seminars and workshops of the Manchester Institute of Innovation Research (3) and with PhD supervisors (monthly).

Triangulation: Engaging multiple methods, theories or even paradigms (Blaikie, 1991; Flick, 1992) leads to an appreciation of multiple constructions and of the relationship between researcher construction and construction of informants (Cox & Hassard, 2005; Golafshani, 2003).

*The Company:* Reviewing coding, findings, and resulting visual descriptions with key informant and members of the CRS Team throughout stages of the research project.

Across papers: For instance, in Paper 4 the perceived degree of embedding

triangulation between these lenses. For instance, what business model logic

means was considered through organizational institutionalism (Papers 2-3)

of responsibility-sustainability in annual reports was triangulated with the

Dow Jones Sustainability Index listings. The complementary use of

and through actor-network theory (Paper 7).

organizational institutionalism and actor-network theory allowed for a

*The Company*: The body of interview data was triangulated through participant observations and tertiary data sources, including external news items providing an external media coverage of The Company.

**Reflexivity:** Reflecting on and accounting for (Cohen & Crabtree, 2008; Mauthner & Doucet, 2003) the construction of knowledge between the researcher's characteristics, her influence on participants, her being influenced by participants and by research context (Davies & Dodd, 2002) creates an appreciation of the plausibility of produced knowledge (Koch & Harrington, 1998; Pillow, 2003).

Across papers/thesis: The construction of each paper from data collection to final manuscript has been documented in a research diary including entries of substantive, theoretical, and methodological nature. Most papers are written as 1<sup>st</sup> person accounts to mark when I am speaking from my perception. The voice of research participants, however, is present through the extensive use of primary quotes. The goal is to enable 'readers to easily travel through the worlds' (Koch & Harrington, 1998, p. 882) of researcher and researched and to be conscious about whose world they are visiting at any given point in time. The same holds true for the literature review chapter where I distinguish between the literature and my construction of what it means in the context of this thesis. My personal characteristics and my positionality in the research was described by narrating the interaction between, me, research participants context (e.g. Chapter 1) and through the inclusion of an 'about the author' section.

The Company: A fieldwork diary was kept for every day of on-site research (see Paper 6). The process of 'going native' was a major part of this reflection (e.g. participation in sensitive meetings, social events, external award ceremonies, collaborating in projects), which helped to remain conscious of how developing social ties influenced the construction of findings (Davies & Dodd, 2002). Particular attention was paid to assuming a meta-position from which to balance social involvement while maintaining the ability to 'step back' from the empirical context (Malterud, 2001). The research diary also served to document potential biases, particularly the researcher perception bias from close involvement and the respective desirability bias of on the interviewee side. It also included reflections on the potential political agendas or animosities of interviewees that might influence their answers (e.g. participants who left the CRS Team involuntarily or who might be involved into internal power play).

*Transferability:* Defining the 'range and limitations' of findings (Malterud, 2001, p. 484) creates an appreciation of the

Across papers: The consistency in findings across a majority of FTSE100 companies (Papers 3, 4) appears to make transferability to similar big multinational corporations likely. However, strong regulation by the FTSE and London Stock Exchange (Paper 4) as well as the advanced regulations regarding corporate responsibility-sustainability in the United Kingdom

meaningfulness of research beyond the immediate empirical context it was conducted in (Walsham, 2006; Whetten, 1989). suggest that these companies might be on average more advanced than, and therefore distinct from, similar corporations operating in a distinct local and institutional context.

The Company: A main finding from The Company context is that a device inscribed with a logic that is misaligned with the one of its surrounding business model actor network may lead to business model change (Chapter 6). This finding appears sufficiently 'high level' to apply to a large variety of distinct organization types. The particular processes of change observed in The Company, however, should not be generalized lightly, due to the use of the actor-network methodology. The thick subjective case description characterizing the methodology leads to findings that are often not meant to be transferred (McLean & Hassard, 2004). However, an actornetwork case contributes to the literature as it 'shifts the existing theoretical repertoire' to be able explain distinct phenomena (Mol, 2010, p. 261). The question of transferability moves from 'where else' the findings hold true, to the question what other closely related inquiries in which distinct contexts could the case enable: A question of 'what's next?' Paper 7 with its exploration of logics in the actor-network context is such a shift of the existing theoretical repertoire as logics have not been focused in actor-network cases. This type of study could be shifted to a wide variety of organizations and even actor networks in general to study their logics.

Ethics: Adequately addressing ethical issues and concerns both in preparation of research and as they arise along the way (Guillemin & Gillam, 2004) is part of morally rigorous 'good' research (Davies & Dodd, 2002; Walsham, 2006).

Across papers: A main concern in the FTSE100 Papers 3 and 4, was that the interpretation of the annual report descriptions of the FTS100 might be misinterpreted by readers as an assessment of (good or bad) responsibility-sustainability performance, while it merely assessed the intensity with which these topics had been embedded into descriptions. This might lead to adverse or conversely, to undeserved positive effects on company reputation. To avoid this, the nature of the findings was discussed explicitly and the metaphor 'paper tiger' was used to highlight the issue.

The Company: A cluster of ethical tensions emerged in relationship to a fair balancing of interest of all parties involved in the close, high-access relationship with The Company. In order to be granted deep access, but to still remain independent regarding the communication of potentially scientifically necessary, but sensitive topics, an anonymity agreement was signed from the beginning of the research project. The Company had the option to decide to de-anonymize the final research outputs. A second layer consisted of an internal anonymity, where, when quoting interviewees, their identity was never revealed. This created an environment where they were able to speak openly without any type of pressures attached to participants as individuals (see Appendix 4 for the consent form and Appendix 5 for the participant information sheet)

#### 4.4. Summary

This chapter has outlined how the philosophy of social constructionism relates to the conceptual lenses of organizational institutionalism and actor-network theory. It also has shown how social constructionism and aspects of the methodology of actor networks have shaped papers. An overview of methods applied during main stages of the qualitative research process was provided. Figure 8 summarizes the main aspects added to the big picture of this thesis from a philosophy, methodology and methods perspective.

Figure 8 Big Picture after Chapter 4, 'Philosophy, Methodology, Methods'

# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

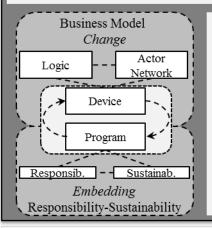
**Preliminary conceptual statement:** *Business model change* may be explained through dynamics of *logics, devices and actor-networks*: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- · Reality constructed by actors
- Unifies lenses: Actor-network theory and institutional logics

# Actor-network methodology

 Follow (human-nonhuman) actors

# **Qualitative methods**

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

# L L

logics			
P3: Devices' combination	/	V	

F4.			
Inscription-	1	V	

P6: Actor		
network		

P7: Dynamics & change	/	V	1

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II.** Embedding processes: Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- III. Misalignment-tension-translation-change: Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

#### Business Model Discussions

- Dynamic states of business models
- Institutionalist business model research
- ☐ Emancipation from 'Business-Business Models'
- ☐ Actor-networks versus activity systems?

#### Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- Embedding and actor network theory
- \* Actor-network theory versus stakeholder theory?
- Textual device constructing organizational reality

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

#### 5. CONCEPTUAL FRAMEWORK AND PAPERS

Our business model...

... 'the DNA of the business' [Erica, Wider Responsibility-Sustainability Team, P30]
... 'the balanced scorecard' [Cecilia, Infrastructure Management, P4]
.... 'WE are actually doing it' [Paul, Commercial Support, P20]

This chapter starts by briefly outlining the seven papers constituting this thesis. It will be shown how each paper contributes a piece to the larger conceptual framework of business model change through embedding responsibility-sustainability. The second part shows how the elements of the conceptual framework introduced in the above chapters, are derived from the findings presented in each paper. The framework suggests business model change happens in two forms: First, through embedding *into* logics, devices and actor networks. Secondly, it happens through the dynamic *between* these states. The third part of the chapter presents the conceptual framework as a map. It summarize and interrelates findings from the papers.

# **5.1.** Papers Overview

This section briefly introduces each paper and shows how they build on one another to create a joint analysis of business model change through embedding responsibility-sustainability.

Paper 1 'normative business model' theorizes how social cares, such as the ones related to responsibility-sustainability become embedded into business models. First author Sally Randles and I propose processes of (de)institutionalization and institutional entrepreneurialism, which influence an organization's normativity and governance instruments. The model is illustrated through the brief case of Arizona State University. This paper connects business model devices and 'de-facto' business models. It suggested each may embody distinct logics. This connection became a stepping-off point for the distinction between business model logics, devices and actor networks, the core theme throughout this thesis. Paper 1 also suggests that 'competing institutional logics, such as sustainability and commercial maximisation logics' influence and shape business models.

**Paper 2** is short-titled 'blending logics'. It suggests that distinct value logics such as the ones of commercial or sustainability business models are influenced by distinct 'ideal-type' institutional logics. These logics are blended in actual organizations' business models. This

idea is studied through the comparison between commercial and sustainability business model logics as presented in their respective literatures. The paper's main finding is that each literature is characterized by explanations of how value proposition, creation, exchange and capture together establish distinct 'organizational value logics'. These logics correspond to the institutional logics of the commercial market and of sustainable development. Whilst the logics share characteristics, they also display considerable tensions between each other.

**Paper 3** proposes a framework of 'devices' combination'. It is empirically grounded in the FTSE100 companies' business model descriptions. Business model descriptions in annual reports are understood as one type of business model device. The paper pursues further the idea that business model logics are influenced by distinct institutional logics. Business model elements related to commercial and responsibility-sustainability logics are found to be coupled and aligned in the FTSE100 business models.

Paper 4 'inscription-description' studies the different kinds of responsibility-sustainability cares that are embedded into the texts and visuals of FTSE100 business model descriptions. It also analyzes in which business model functions they are embedded. Based on these analyses, a measure for the intensity of textual embedding is suggested. A main finding is that a variety of responsibility-sustainability elements are embedded in distinct functions of the business model devices' texts and visuals. This responsibility-sustainability logic 'inscription' into the device, changes the logic 'described' by the device. After the inscription they describe a blended commercial-responsibility-sustainability logic.

Paper 5 'device agency' focuses on another type of device. Responsibility-sustainability programs like 'Being Responsible' are devices inscribed to create a more responsible and sustainable organization. Through an in-depth case study the device is found to develop five types of agency. These agency types are directed at shaping an actor network that enacts responsibility-sustainability. The paper ends asking whether a corporate responsibility-sustainability device like 'Being Responsible', may also change companies' business model actor networks.

**Paper 6 'actor network'** explores how the 'Being Responsible' device changed The Company's business model actor network. A main finding is that the device, albeit incrementally, changed pervasively the business model actor network. The change happened through the embedding of responsibility-sustainability. 'Being Responsible'

translated into the actor network and enrolled business model actors to enact responsibilitysustainability.

Paper 7 'dynamics & change' builds a conceptual model from insights of the previous papers. The model explains how business model logics are inscribed into devices and enacted by actor networks. Business model change may occur when there is a misalignment between the logic inscribed in the device, and the logic enacted dominantly by the actor network. Such misalignment induces a mutual translation process between device and actor network, changing business model logics, devices and actor networks. The model is illustrated through The Company case.

The structure formed by these papers is summarized in Figure 9. It highlights how each paper contributes to understanding change through embedding responsibility-sustainability. Each paper is described in terms of what it tells us about the embedding *into* logics, devices and actor networks. Each paper also shows part of the dynamics *between* these business model states. In the two sections after the figure, embedding into logics and the dynamics between them will be unpacked further.

Figure 9 Logics, Devices and Actor Networks across Papers

	Logics	Business model states Devices	Actor Networks
P1: 'Normative business model' (conceptual paper, illustrative case)		Artefacts as business model devices artefactual and de-facto busine institutional logics, such as sust maximisation logics.'	
P2: 'Institutional logics' (structured review)		cs of commercial market and of tual companies' organizationa	
P3: 'Devices' combination' (FTSE100)		Annual report devices combining elements related to logics onts from commercial and responses from commercial and responses from commercial and responses.	
P4: 'Inscription- description' (FTSE100)	Description of logic by devices' inscription  Textual embedding as 'inscription'	Device inscription as construction of device	el logic 'described' by devices.
P5: 'Device agency' (The Company)	The Being Responsible device	Device agency of 'Being Responsible' e developed five types of agency responsibility-sustainability.	ofor enrolling actors, to enact
P6: 'Actor network' (The Company)		'Being Responsible' device translates its logic (in)to actors ice incrementally, but pervasive dding responsibility-sustainabil	
P7: 'Dynamics & change ' (The Company)	enacted by the actor network	'Being Responsible' as business model change device d with a logic that is misaligned t, tensions emerge which fuel tra ss models' logics, devices and d	anslation processes that may

# 5.2. Embedding *into* Logics, Devices, Actor-Networks

Throughout the papers we have seen how responsibility-sustainability has been embedded into each state: Logics, devices and actor networks. In each of the states embedding happened through distinct processes, which will be described in the following sections.

The sections are brought together at the end in the conceptual framework (Figure 10).

# 5.2.1. Blending of Logics

The business model logics described by the FTSE100 companies were a blend between commercial (e.g. shareholder value and competitive positioning) and responsibility-sustainability (e.g. responsible consumption and triple bottom lines). Papers 2 and 3 suggest that the value logics of distinct organization types are influenced by distinct institutional logics (Friedland & Alford, 1991; Thornton & Ocasio, 1999). Commercial business models are typically dominated by the commercial market logic. Such business models have a 'dominant logic' that is commercial (Bettis & Prahalad, 1995; Chesbrough & Rosenbloom, 2002; Prahalad & Bettis, 1986).

When responsibility-sustainability is embedded, the purely commercial logic is blended with aspects related to responsibility-sustainability. In The Company we have seen how the dominant 'efficient money-making machine' logic was gradually blended with aspects of responsibility-sustainability (Papers 5-7). In the FTSE100 business model descriptions the commercial logics of how the company made money was blended with a variety of responsibility-sustainability cares (Papers 3, 4). Responsibility-sustainability became embedded into the commercial logics in both cases through these blending processes.

It will be illustrated later in this chapter how logics are constructed through the enactment of actors and the inscription of devices. Logics do not exist independently from these constructions. Accordingly, blending logics depends on the embedding of responsibility-sustainability into business model devices and actor networks.

# 5.2.2. Combination of Device Elements

Devices are a 'composition' of 'heterogeneous elements' (Akrich, 1992, p. 205). The FTSE100 business model descriptions combined commercial elements and responsibility-sustainability elements (Paper 3). For instance, the home improvement retailer Kingfisher combined three different types of value propositions: Value for shareholders, value for customers and value for society. Paper 3 finds evidence for six distinct mechanisms combining commercial and responsibility-sustainability elements. Paper 4 shows how a

variety of responsibility-sustainability elements were combined with commercial business model elements. Responsibility-sustainability elements were embedded across functional positions of the models. Embedding of responsibility-sustainability into devices happens through such combination between commercial and responsibility-sustainability in devices.

From an actor-network theory angle, these combinations are 'inscriptions' of the devices (Akrich, 1992; Akrich & Latour, 1992). Inscriptions define what the device is and does. They establish devices' 'programmes of action' (Akrich & Latour, 1992). A device with an inscription of elements combining commercial and responsibility-sustainability becomes an 'intermediary' between commercial and responsibility-sustainability (Callon, 1986a; Callon, 1991). When devices engage in translation they become an actor in both the commercial and responsibility-sustainability actor networks as will be illustrated in the following section.

#### 5.2.3. Translation between Actors

In The Company I had studied the translation processes through which 'Being Responsible' became embedded between the human and nonhuman actors of the business model (Paper 6). Translation is a process that happens between actors with distinct logics. Callon (1986a, p. 60) describes this kind of mutual translation processes as 'interdefinition of actors'. Actors define each other according to their logic. They translate each other into their logic, giving each other meaning according to their respective logics.

Imagine the translation process between the 'Being Responsible' program and the balanced scorecard. 'Being Responsible' followed a responsibility-sustainability logic. The balanced scorecard logic of action was one of control and goal achievement. This logic was part of The Company's 'efficient money making' business model logic (see Paper 6). The scorecard translated the responsibility-sustainability cares of 'Being Responsible' into its logic as another set of control indicators to be achieved. Conversely, 'Being Responsible' translated the scorecard into its responsibility-sustainability logic. The scorecard's indicators directed the behavior of all executives in The Company. This characteristic translated into the responsibility-sustainability logic as an opportunity to create wide enactment of responsibility-sustainability. The outcome was twofold. 'Being Responsible' was translated into a set of indicators (CO2 emissions, hours of community engagement, etc.) and The Scorecard is translated as a multiplier for responsibility-sustainability through the inclusion of the 'Being Responsible' indicators.

The translation between the 'Being Responsible' program and the balanced scorecard is just one of the many translations that were observed in The Company (Paper 6). A variety of translations between commercial business model actors and responsibility-sustainability actors embedded responsibility-sustainability into the relations that were the business model actor network.

# 5.3. Dynamics *between* Logics-Devices-Actor-Networks

In the last section, we have seen the processes of blending logics, combining device elements and translating between actors. Each of them changed the business model as they embedded responsibility-sustainability *into* its three states. This next section instead explores business model change through dynamics *between* the business model states of logics, devices and actor networks.

# 5.3.1. Logic-Actor-Network Dynamics: Guidance and Enactment

In The Company, Anna from Human Resources (P59), had called the business model logic 'your how to do guide'. Similarly, Chesbrough and Rosenbloom (2002, p. 531) describe a business model logic as 'set of heuristic rules, norms and beliefs' directed at actors 'to guide their actions'. They are actors' 'logics of action' (Bacharach, et al., 1996; Bacharach & Mundell, 1993; Frenkel & Kuruvilla, 2002). Logics of action are 'an implicit relationship between means and goals that is assumed by organizational actors' (Bacharach & Mundell, 1993, p. 423). A business model logic is exactly this, a combination of means (value creation, exchange and capture) for the end of fulfilling the organization's value proposition (Papers 3 and 4). If business model logics are to 'guide' business model actor networks' enactment, their action, this guidance has to apply to both human and nonhuman actors.

The business model literature has begun to study how logics guide human actors through cognition (Demil & Lecocq, 2015; Tikkanen, et al., 2005). Business model logics are understood as 'a set of cognitive configurations that can be manipulable in the minds of managers (and academics)' (Baden-Fuller & Mangematin, 2013, p. 418). This understanding describes 'business models as a set of decisions' (Girotra & Netessine, 2014, p. 97) or 'choices' guided by the logic (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002). Cognition explains how logics guide human actors. How can 'things', nonhuman business model actors be understood to be guided by a particular logic? Nonhuman actors carry their logic, their 'program of actions', in their composition (Akrich

& Latour, 1992, p. 260). This 'composition' is the result of processes of combining elements, which was described earlier in this chapter and in Paper 3.

So logics *guide* human and nonhuman actors, but actor networks also 'enact' logics. Earlier we had looked at how translation changes actor networks. In the process of translation, not only actors but also their logics are changed. For instance, The Company's balanced scorecard that used to have a pure commercial logic after translation also enacted responsibility-sustainability. Accordingly, logics guide actors, but they are not enacted one-to-one. The enactment of logics may be distinct from the logic by which the actors are influenced. Enactment may change the logic. In the section on blending logics, I had suggested that logics are blended by actors, which can be explained through these processes of translation.

# 5.3.2. Actor-Network-Device Dynamics: Shaping and Participation

Actors in networks may 'shape' devices. For instance, the FTSE100 business model descriptions are primarily shaped by the departments in charge of reporting (Papers 3, 4). The 'Being Responsible' program was originally created by a group around The Company's CEO. It was reshaped through translation processes with other actors across The Company (Paper 6). Human actors shape devices to fulfil particular programs of action (Akrich & Latour, 1992).

Devices have often been described as actors created to facilitate change processes (Akrich, 1992; Callon, 1986a; Callon, 1991). 'Designers' or 'engineers' shape such devices (Akrich, 1992; Akrich & Latour, 1992; Law, 1987). They inscribe a vision of the world the devices are meant to create into them (Akrich, 1992). 'Being Responsible' was shaped to create a responsible and sustainable business. Its inscription is the responsibility-sustainability logic that the actors of such a company would be guided by. A variety of devices have been found to change existing business model actor networks (Demil & Lecocq, 2015). Devices may also participate in the new creation of actor networks, for instance, in the entrepreneurial context (Doganova & Eyquem-Renault, 2009).

Devices may change actor networks as they may 'participate' in them. Participation of devices and the degree to which they change a business model actor network depends on their characteristics. The capacity of 'Being Responsible' to change The Company's business model actor network depended on three main characteristics. First, it carried a responsibility-sustainability logic misaligned with the dominant commercial logic. This

misalignment fueled translation processes. Secondly, it developed power to make actors enact its logic. Third, it also circulated across the actor network enrolling business model actors to enact responsibility-sustainability (Paper 7). However, devices lacking these characteristics are likely to not participate in the business model actor network. For instance, The Company's business model description in the annual report was perceived to be an 'illustrative thing for the annual report (...) just a piece of art (...) people don't run the business around it' [Grant, CRS Team, P11]. It lacked all three characteristics.

# 5.3.3. Device-Logic Dynamics: Inscription and Description

In the last section we have seen how actors may 'inscribe' devices with a particular logic. Accordingly, logics are inscribed into devices' 'programs of action' (Akrich & Latour, 1992). For instance, The Company's balanced scorecard's main elements, its inscription were the indicators it consisted of. Before 'Being Responsible', these indicators mainly were a commercial logic inscription. The responsibility-sustainability cares are the elements forming the inscription of 'Being Responsible', a responsibility-sustainability logic (Paper 5). The FTSE100 business models were inscribed with both commercial and responsibility-sustainability elements (Papers 3, 4).

Devices are not only inscribed with logics, they also 'describe' logics. Actors shaping devices may well have inscribed new blends of logics. These are there to see in devices' inscriptions. The inscription becomes a description, possibly of new blended logics. Inscription may change the logics described by a device. Through devices' descriptive faculties, actors may learn about new logics and enact the changed logic. A critical question was raised about the FTSE100 corporations' business model descriptions' relationship to the companies' enacted business models (Paper 4). The suggestion was that they might just be 'paper tigers', impressively looking documents that do not reflect the enacted business model. However, these documents may actually become agents for change the new blended logic they describe should be picked up and enacted by these companies' business model actors.

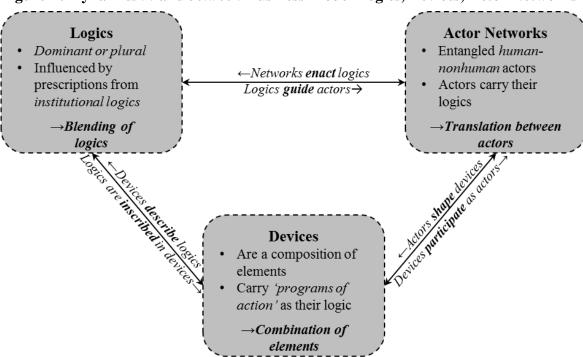


Figure 10 Dynamics in and between Business Model Logics, Devices, Actor Networks

# 5.4. Mapping Thesis Findings onto the Conceptual Framework

The previous section has shown a more refined framework of the dynamic business model states. Findings from the papers were used for illustrative purposes. This brief last section is aimed at, conversely, showing how the framework has developed from the papers. Figure 11 maps which parts of the framework were developed from which papers. It brings together the paper presentation in the first section of this chapter, with the conceptual framework described in the chapter's middle sections.

The figure may also serve as a map to locate particular types of findings in the papers. Someone, for instance, an academic in the area of institutional logics, might be interested in the idea of 'blending of logics'. Reference made in the 'logics' box point to papers with further relevant information. The box informs that Papers 3 and 4 study such blending. It also shows that papers 2, 3 and 4 provide insight into the role played by institutional logics in the blending process. For someone interested in the nature of responsibility-sustainability programs, maybe a practitioner designing such a program, the box towards the bottom of the figure provides pointers. Paper 5 has more information on the characteristics of such programs, such as the cares it has inscribed or its construction as an actor network itself. The box also points to Paper 6 for the circumstances under which a responsibility-sustainability program may become a business model change device.

Figure 11 Conceptual Framework and Thesis Papers/Chapters<sup>27</sup>

#### BUSINESS MODEL CHANGE

- Business models exist in three dynamic states, logics, devices, actor networks (CH2, P1,7)
- Change is explained as a) change in the states and b) as dynamics between them (P1,7)
- Misalignment between logics inscribed into devices and the ones enacted may induce 'translation' changing all three, logics, devices and actor networks (P1,6,7)

#### LOGICS

- Organizational value logics consist of value proposition, creation, exchange, capture (P2,4)
- Are 'blended' when influenced by plural institutional logics (P2)
- Embedding as blending of responsibility-sustainability and commercial logics (P3,4)

Logics guide actors; actor networks enact logics (P6,7)

#### ACTOR NETWORKS

- Constructed as relations between human and nonhuman business model actors (P6,7).
- Embedding as translation between responsibility-sustainability and business model actors and between actor networks (P6).

Embedding responsibility-sustainability leads to

'tensions' (P2,3,6) and to misalignment (P1,7)

which in turn fuels business

model change

Business model change

Rusiness model participate in them provided to the participate in the parti

# BUSINESS MODEL DEVICES

- May be manifold governance instruments (P1)
  - Explicit business model descriptions (P3,4)
  - Responsibility-sustainability programmes may implicitly be business model devices (P6,7)
- Embedding as combination of commercial and responsibility-sustainability elements (P3,4)

#### RESPONSIBILITY-SUSTAINABILITY PROGRAMS

- Multiple responsibility-sustainability cares inscribed, describing a responsibility-sustainability logic (P5)
- Is an actor and an actor network with potential to connect to multiple other actors and networks (P5)
- May become a business model change device (P6)
- Embed responsibility-sustainability in actor networks by merging, redefining, creating, and becoming an actor (P6)

#### DEVICES

can change business models if...

- 1. Inscribed with a misaligned logic,
- 2. Developing power to enrol actors to enact their logic
- 3. Circulating across business model actor network (P7)

# EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY

- Responsibility and sustainability are entangled through interconnected responsibility-sustainability cares (P1,4,5) and through the joint enactment of responsibility-sustainability (P5,6)
- Embedding responsibility-sustainability into commercial business models relies on distinct, but interrelated processes for logics (P3,7), devices (P2,3) and actor networks (P5-7).

<sup>&</sup>lt;sup>27</sup> The abbreviation 'P' refers to papers, 'CH' to chapters.

# 5.5. Summary

This chapter has brought together the conceptual framework of this thesis with the advances made throughout the papers. After a brief outline of each paper, they were used to illustrate a refined conceptual framework. In the last part of the chapter, it was shown briefly how each part of the conceptual framework was developed from particular papers' findings. Figure 12 illustrates the contribution this chapter has made to the bigger picture of this thesis. The conclusions chapter will reconnect to the framework and papers by showing how they address the research questions; how they result in four final conceptual statements and how they contribute to academic discussions and practitioner application.

Figure 12 Big Picture after Chapter 5, 'Conceptual Framework and Papers'

# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

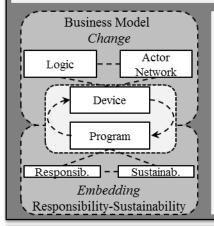
**Preliminary conceptual statement:** Business model change may be explained through dynamics of logics, devices and actor-networks: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- · Reality constructed by actors
- Unifies lenses: Actor-network theory and institutional logics

#### Actor-network methodology

Follow (human-nonhuman) actors

#### Qualitative methods

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

B. PAPERS				
	L	D	A N	
P1:Normative business model	٧	٧	٧	
P2:Blending logics	>			
P3: Devices' combination	<b>&gt;</b>	٧		
P4: Inscription- description	٧	>		
P5: Device agency	٧	ゝ	٧	
P6: Actor network		٧	7	
P7: Dynamics & change	~	~	~	

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- III. Misalignment-tension-translation-change: Misaligned commercial and responsibilitysustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

Business Model Discussions
☐ Dynamic states of business models
☐ Institutionalist business model research
☐ Emancipation from 'Business-Business Models
☐ Actor-networks versus activity systems?

Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- Embedding and actor network theory
- \* Actor-network theory versus stakeholder theory?
- Textual device constructing organizational reality?

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

#### 6. CONCLUSIONS

Without Being Responsible (...) would we have gone as far, as quickly and with such breadth? (...) almost certainly not' [Jay, Corporate Affairs, P23]

From Jay's quote it appears that The Company's 'Being Responsible' program had driven change. Anna from Human Resources claimed that The Company's responsibility-sustainability initiative had become embedded as 'part of our whole business model (...) a fine common thread throughout' [P59]. In the introductory chapter, this thesis had taken such statements to anchor the initial research problem:

How can responsibility-sustainability programs change business models?

The purpose of this final chapter is to illustrate how the papers of this thesis have addressed the initial research problem. It will be shown how the papers together address each research question. The findings across the thesis will be summarized in four final conceptual statements. The final section will highlight salient discussions to which the papers contribute. It will also develop a research agenda out of these discussions.

# **6.1.** Addressing Research Questions

Three questions were proposed to explore how corporate responsibility-sustainability programs can change business models. These questions can now be addressed using findings from the papers.

**RQ1:** How does embedding of responsibility-sustainability into business model logics, devices and actor-networks happen?

The first research question was aimed at studying the processes of embedding responsibility-sustainability into the three business model states. Across papers we see how corporate responsibility-sustainability had been embedded into logics, devices and actor networks. First, business model logics have been conceptualized (Paper 2) as organizational value logics including value proposition, creation, exchange and capture. The embedding of responsibility-sustainability into these logics happens through the 'blending' of logics (Paper 2). Blending may take place in devices or actor-networks. In the FTSE100 annual reports we observed how the logic described by the business model devices was a blend of commercial and responsibility-sustainability logics. The logic enacted by The Company also was such a blend (Paper 6). Secondly, responsibility-sustainability embedding into

devices happened through the 'combination' of commercial and responsibility-sustainability elements of the device. Paper 3 presents six mechanism of combination. Through them responsibility-sustainability elements were embedded into the commercial business model devices of the FTSE100. Paper 4 shows the embedding of a variety of responsibility-sustainability cares into distinct functions of the FTSE100 business models logics. Third, processes of 'translation' embedded responsibility-sustainability into business model actor networks. Paper 6 shows translation processes between an emerging responsibility-sustainability actor network and the business model actor network. Through translation, the 'Being Responsible' device enrolled business model actors to enact responsibility-sustainability. The business model actor-network was changed through these processes of translation.

**RQ2:** How can a responsibility-sustainability program develop agency to embed responsibility-sustainability and to change business model actor networks?

The second research question was aimed at studying how devices develop agency. The main interview question for Paper 5 was, 'What would be different if Being Responsible did not exist?' The answers provide insight into the types of agency the 'Being Responsible' device developed to enrol actors, to enact responsibility-sustainability. The following types were found: i) starting conversations, ii) connecting and structuring, iii) motivating enactment, iv) legitimizing and enabling and v) framing and aligning. Paper 6 shows how the 'Being Responsible' device became an actor. It describes how the device took part in the business model actor network by circulating through it and translating into it. Through these processes the device changed pervasively the business model actor network, albeit incrementally. It made actors within the business model actor network enact responsibility-sustainability; sometimes even against the dominant commercial business model logic. Paper 7 theorizes three crucial characteristics of devices to change business model actor networks. Such devices i) have an inscribed logic distinct from the dominantly enacted business model logic, ii) develop the power to enrol other actors to enact their inscribed logic, and iii) circulate across the actor network to enrol actors in multiple sites.

**RQ3:** How may embedding responsibility-sustainability change the dynamics of business model logics, devices and actor networks?

The third research question was aimed at bringing together what had been learnt about the dynamics between business model logics, devices and actor networks. Paper 7 addresses the question by building a framework that explains business model change through the dynamics between logics, devices and realities. The framework is illustrated through The Company case. In The Company, there was a misalignment between the logic of responsibility-sustainability of the 'Being Responsible' device, and the commercial logic dominantly enacted by The Company's business model actor network. This misalignment between logics created tensions which fueled a change process between the business model states.

As part of this change process The 'Being Responsible' device translated actors of the business model actor network according to its responsibility-sustainability logic. These actors then enacted this logic as the business model actor network. The joint enactment of the commercial logic and the responsibility-sustainability logic constituted a new blended logic. This new logic in turn was inscribed into other devices. An example for changed devices is The Company's business model description. It had 'Being Responsible' embedded as an 'enabler' of the business model. Another central business model device, the balanced scorecard, was inscribed with the new blended logic. Responsibility-sustainability indicators were combined with its commercial indicators.

In summary, the responsibility-sustainability embedding had begun with a responsibility-sustainability device, which had changed the actor network. The actor network in turn enacted a new blended logic. This logic then was inscribed into other devices. The model suggests that business model change in one state, logic, device or actor network may subsequently change the other states through the dynamics between them. Conversely, embedding of responsibility-sustainability in one business model state may induce embedding across all states through these dynamics. The conceptual framework described in depth in the previous chapter has provided further insight into these and related dynamics beyond the context of The Company. The following section brings together answers to these research questions and findings from the papers in four final conceptual statements.

# **6.2.** Final Conceptual Statements

I will now summarize the findings of this thesis in final conceptual statements. These statements are meant to be understood in the empirical context of The Company and of

the FTSE100. They are not meant as generalizations. They may serve, however, as a basis for further exploration of the degree to which they are transferrable to other contexts. The final conceptual statements provide a simplified summary of the thesis findings:

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- **III. Misalignment-tension-translation-change:** Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

#### **6.3.** Contributions and Further Research

Most of the papers in this thesis include dedicated contribution and discussion sections. The following three sections are aimed at highlighting the overarching themes of discussion arising from this thesis as a whole. Each section proposes further research projects.

#### 6.3.1. Business Model Discussions

A main contribution of the thesis is the **dynamic business model states** of logics, devices and actor networks. Dynamics between business model devices and their actor networks have been conceptualized in the literature (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). So have dynamics between cognitive logics and human actors' enactment (Baden-Fuller & Mangematin, 2013; Baden-Fuller & Morgan, 2010; Tikkanen, et al., 2005). This thesis connects such advances in one framework and grounds them empirically. The dynamics may explain a variety of business model phenomena beyond the one of business model change, which was the focus of this thesis. Further research might explain, for instance, the phenomena of business model maintenance and creation through such dynamics. Another promising stream of further research is the relationship between logics

and their inscription in nonhuman actors. Such research would complement the connection between logics and human actors through cognition which was mentioned above.

Another salient contribution stems from the novel use of **organizational institutionalism as conceptual lens for business model research**. In Paper 1, we have used concepts from organizational institutionalism, such as institutional entrepreneurialism, (de)institutionalization and institutional logics to explain the 'deep institutionalization' of business models. Papers 2 and 3 show how institutional logics influence business model logics. These papers showcase the usefulness of organizational institutionalism for studying business model phenomena. The papers pave the way for further research from this angle.

The institutional logics lens creates an opportunity for **conceptual emancipation from stereotypical commercial 'Business-Business Models'** (e.g. Chesbrough & Rosenbloom, 2002; Osterwalder & Pigneur, 2010; Teece, 2010). Paper 1 showcases how an adapted business model concept, the normative business model, applies to non-business organizations like Arizona State University. Paper 2 proposes 'organizational value logics' as a concept applying to any type of organization, independent from the institutional logic it is dominantly influenced by. Often several institutional logics influence one organizational value logic. Paper 3 shows that even stereotypical for-profit corporations are often influenced not only by a commercial logic, but also by responsibility-sustainability logics. Further research may build a conceptual bridge to unify the 'commercial' business model literature with the 'alternative' business model literature in one coherent discussion around organizational value logics.

Another discussion may emerge from understanding **business models as actor-networks as alternative to 'activity systems'**, the currently prevalent perspective in the literature (Zott & Amit, 2010; Zott, et al., 2011). The activity-systems perspective understands business models as easily observable 'activities'. This perspective lends itself to a 'realist' understanding of business models. However, looking only at activities creates difficulties regarding a set of important questions. Where are the actors creating these activities? What changes these activity systems? What sustains them over time? Using an actor-network perspective as an alternative to activity systems may provide insights into these questions by the 'insertion of agency into business model scholarship' (Randles & Laasch, 2016, p. 69, Paper 1 this thesis).

# 6.3.2. Corporate Responsibility-Sustainability Discussions

# Responsibility-sustainability reflects a combined empirical and conceptual advance.

Chapter 2 illustrates how corporate responsibility and sustainability have converged conceptually. The Company and FTSE100 empirical studies reveal the entangled nature of responsibility-sustainability cares. A separate discussion of responsibility and sustainability is a misrepresentation of this phenomenon. This thesis contributes to research advocating conceptual convergence between responsibility and sustainability (Montiel, 2008; Muff, 2015; Van Marrewijk, 2003) and to recognizing the entangled phenomenon (Amalric, 2006; Grayson, 2011; Hamann, 2003; Rake & Grayson, 2009; Visser, 2008). I suggest the notion of responsibility-sustainability to express entanglement and alongside these scholars I also highlight the prerogative of interdisciplinarity.

The discussion around **embedding responsibility-sustainability may benefit from actor network theory**. Embedding is the integration of responsibility-sustainability across heterogeneous aspects of an organization such as values, the supply chain, the strategy and the business model (Banerjee, 2011; Bartlett, 2009; Govindan, 2016; Grayson, 2011; Lozano, 2012; Mason & Simmons, 2014; Short, et al., 2013). This literature struggles with the heterogeneous nature of *what* is embedded *into what*. It lacks a conceptual lens bringing these heterogeneous subjects and objects of embedding together. Actor-network theory appears to be such a lens. The embedding responsibility-sustainability literature may also benefit from a connection to the mature literature on the embeddedness of economic activity into its social context (Dacin, et al., 1999; Granovetter, 1985; Polanyi, 1994).<sup>28</sup> Further research may show how the construction of actor-networks for responsibility-sustainability *is* a process of social embedding. The research object would be the embeddedness and embedding of an actor in its actor network.<sup>29</sup>

The corporate responsibility-sustainability literature might be enriched through actornetwork theory as a complement to stakeholder theory. Stakeholder theory is well suited for the normatively-oriented corporate responsibility literature (Donaldson & Preston, 1995; Freeman, 1984; Mitchell, et al., 1997) asking questions about the nature of 'responsibility to whom'. Actor-network theory instead appears well-suited for questions of pragmatic, processural nature along the lines of 'how to make responsibility-sustainability

<sup>&</sup>lt;sup>28</sup> A joint project has been discussed with Brent Beal a previous co-author, who also is one of the authors of the most-cited paper on embeddedness in the business context (Dacin, et al., 1999).

<sup>&</sup>lt;sup>29</sup> Another contribution to the business model literature could be made by connecting the embedding of responsibility-sustainability into actor networks to embedding other topics across a business model. An example is embedding 'strategic agility' (Doz & Kosonen, 2010).

*happen*' (Papers 6, 7), typically asked in corporate responsibility-sustainability implementation (see Chapter 3).

Another contribution relates to the 'Being Responsible' textual device constructing an organizational actor network which enacts responsibility-sustainability. These findings speak to the discussion about how texts and other media of communication may 'constitute organizations' (Cooren, 2004; Cooren, et al., 2007; Cooren, 2015). The five textual agency types (Paper 5) appear highly relevant. Also how the 'Being Responsible' device constructed an actor-network enacting responsibility-sustainability appears relevant. Further research may connect this social construction of an actor network by a textual device with the corporate responsibility-sustainability literature. It may serve as an alternative to the prevalent conceptual lens of discourse as the process through which communication constitutes organization.

#### 6.3.3. Practitioner Contributions and Publications

I had entered the academic line of work to enable responsible and sustainable managerial practice. As a consequence, I would like to write papers from my PhD directed at helping practitioners to affect business model change and to embed responsibility-sustainability. I plan to write these papers based on a parallel publishing strategy. The same research project will be translated into written output for both the academic and practitioner audiences, in order to bridge the theory-practice gap (Bansal, et al., 2012; Kelemen & Bansal, 2002).

The research on the FTSE100 companies appears to have the type of empirical foundation and practical relevance found in California Management Review articles. A paper on *'blending'* business model logics is one possible output. Similar articles in style and content have been covered in the journal in the past, such as the *'blended value proposition'* (Emerson, 2003) or *'social return on investment'* (Lingane & Olsen, 2004).

Insights gained from looking at business model change through an actor-network lens can be packaged into a practitioner-accessible set of recommendations. Harvard Business Review has published many similar business model innovation articles in the past. My article could contribute from the novel perspective of business model devices and actor networks. It would be written in a 'how-to' managerial style. It could be titled, something along the lines of 'Crafting business model change'. It would be built around the five practitioner recommendations extensively illustrated in *Appendix 6*. It would include a

number of examples from the empirical context of this thesis. The style may resemble Kotter's (1995) eight steps of change management, or Casadesus-Masanell and Ricart's (2011) 'How to design a winning business model?'

# 6.4. Limitations

The limitations of individual papers can be found therein. Generally speaking, there are several limitations resulting from trade-offs that had to be made on the research journey. For instance, choosing the FTSE100 companies meant realizing an access opportunity, but accepting the limitations of the type of data. Are these report business model descriptions 'paper tigers', impressively looking documents that do not represent organizational reality? This would be a serious flaw if objective reality was what I had been looking for. In fact, the goal was to understand how FTSE100 *inscribed* their business model descriptions with a certain logic. If that logic was enacted was not a main research interest in these papers.

Another trade-off may be seen in the fact that a lot of the time was spent ensuring deep access and collecting highly triangulated data from just one in-depth research site, The Company. The main method of actor-network theory is typically focused on such ethnographic single-case designs. However, readers with distinct methodological preferences might want to see the meaning of these deep findings transferred to distinct contexts. Similar studies, investigating distinct type of business model devices in different companies and contexts may balance this perceived limitation. For instance, Doganova and Eyquem-Renault's (2009) study on business models as devices in the venture context or Demil and Lecocq's (2015) study of the role of multiple devices in business model innovation may serve to contextualize. Together these studies establish a wider understanding of the dynamics between business model logics, devices and actor networks. Also, focusing on only one device in The Company case study may be considered a limitation. Both of the aforementioned sources simultaneously studied the agency of multiple devices. However, the focus on one device also brought advantages. For instance, I was able to pinpoint the agency of this particular device.

A final limitation stems from this thesis' construction over time. Some older pieces of the thesis are not entirely in line with this most recent leg of the research journey. For instance, the notion of de-facto business model in Paper 1 might be (mis)understood to allude to an objective 'de-facto' reality. De-facto might be associated with facts that can be observed, measured and that exist independently from the observer. Such de-facto thinking would be

incommensurable with the constructionist worldview that runs through this thesis. Paper 1 has been published and cannot be changed to adapt to this thesis. However, the problem here is one of the expression 'de-facto', not one of the concepts behind it. The origins of the concept lie in the social construction of science and technology (Rip, 2010). Accordingly, the notion and with it Paper 1, is compatible with constructionism. A de-facto business model may be understood synonymous to the constructionist notion of an enacted business model that has been used throughout the thesis. A similar case is Paper 4, which has been accepted for publication in its current state. If I was to rewrite the paper today, I would possibly avoid the 'pseudo-quantitative' last step of analysis of counting the occurrences of embedded responsibility-sustainability elements. Again, however, the major share of the analysis and paper is in line with the deeply qualitative methodology of this thesis. Only for the last step of visualization, I used a quantitative crutch.

# **6.5.** Summary and Mapping the Thesis

This thesis had begun with the research problem 'How can responsibility-sustainability programs change business models of companies?' Now at the end of this thesis we have seen how such programs may become business model change devices. This means they engage in translation processes. Through translation their responsibility-sustainability logic becomes enacted by a company's business model actor network. This answer arose from the applications of organizational institutionalism and actor network theory in the empirical contexts of the FTSE100 and of The Company.

With the contents of this last chapter, the thesis map in Figure 13 is now complete. It maps the movement from a research problem; to an initial conceptual statement; and on to three research questions, all in the introductory chapter. In the next chapters, the business model states (logics, devices, actor networks) and corporate responsibility-sustainability were positioned in the literature. The methods chapter summarized the constructionist methodology, introduced an actor-network methodology and the qualitative methods used. The previous chapter outlined the conceptual framework by combining literature review, methodology and paper findings. This last chapter has directly addressed the research questions. It also has presented four final conceptual statements as well as contributions to research and practice. This storyline and the corresponding thesis map are meant to provide easy access for the reader. However, it cannot do justice to the great deal of learning-bydoing, experimentation and iteration involved in getting to this map. This is another story to be told.

Figure 13 Big Picture after Chapter 6, 'Conclusions'

# BUSINESS MODEL CHANGE THROUGH EMBEDDING CORPORATE RESPONSIBILITY-SUSTAINABILITY? LOGICS, DEVICES, ACTOR NETWORKS

'Being Responsible is part of our whole business model (...) like a strand that goes through every area, every function. '[Anna, Human Resources, P59]

**Phenomenon**: The Company was *embedding responsibility-sustainability* as 'Being Responsible' program. Many FTSE100 companies embedded responsibility-sustainability into business models.

Research problem: How can responsibility-sustainability programs change business models?

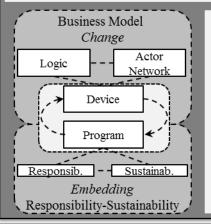
**Preliminary conceptual statement:** *Business model change* may be explained through dynamics of *logics, devices and actor-networks*: Embedding responsibility-sustainability may fuel the dynamics.

#### A. THESIS

**RQ1:** How does *embedding* of responsibility-sustainability into business model logics, devices and actor-networks happen?

**RQ2:** How can a responsibility-sustainability program develop *agency* to embed responsibility-sustainability and to change business model actor networks?

**RQ3:** How may embedding responsibility-sustainability change the *dynamics* of business model logics, devices and actor networks?



#### Constructionism

- · Reality constructed by actors
- Unifies lenses: Actor-network theory and institutional logics

# Actor-network methodology

Follow (human-nonhuman) actors

### Qualitative methods

- In-depth case study, thematic template analysis
- 104 interviews, 100 reports of the FTSE100

B. PAPI	ERS		
	L	D	A N
P1:Normative business model	٧	٧	٧
P2:Blending logics	\		
P3: Devices' combination	~	٧	
P4: Inscription- description	٧	ゝ	
P5: Device agency	~	ゝ	٧
P6: Actor network		٧	~
P7: Dynamics & change	~	~	~

- **I. Dynamic business model states:** Business models exist as dynamics between logics, devices and actor networks: Logics are inscribed into devices and enacted by actor networks.
- **II. Embedding processes:** Embedding responsibility-sustainability into commercial business models involves three processes: Blending logics, combining device elements, translation between actors.
- **III. Misalignment-tension-translation-change:** Misaligned commercial and responsibility-sustainability logics create tensions, fueling translation between actors, leading to change.
- **IV. Change device characteristics:** A Change device is inscribed with a misaligned logic; develops power to make actors enact its logic; and circulates across the actor network.

#### **Business Model Discussions**

- ☐ Dynamic states of business models
- ☐ Institutionalist business model research
- ☐ Emancipation from 'Business-Business Models'
- ☐ Actor-networks versus activity systems?

#### Responsibility-Sustainability Discussions

- Conceptual advance: Responsibility-sustainability
- . Embedding and actor network theory
- ❖ Actor-network theory versus stakeholder theory?
- Textual device constructing organizational reality?

For Practitioners: How to use devices to change business models and to embed responsibility-sustainability?

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# Appendices

# Appendix 1 Interviewees

Alias	Identifier	Position
Estelle	P1	CRS Liaison
Alfred	P2	CRS Liaison
Claire	P3	CRS Liaison
Cecilia	P4	CRS Liaison
Monica	P5	CRS Liaison
Hilary	P6	CRS Liaison
Jacob	P7	CRS Team
Haley	P8	CRS Team
Jim	P9	CRS Team
Kay	P10	CRS Team
Grant	P11	CRS Team
Heather	P12	CRS Team
Larry	P13	CRS Team
Christine	P14	CRS Team
Jessy	P15	CRS Team
Sue	P16	CRS Team
Graham	P17	CRS Team
Ramona	P18	CRS Team
Mike	P19	CRS Team
Paul	P20	Commercial Support
Denise	P21	Subsidiary Company
Nancy	P22	Corporate Affairs
Jay	P23	Corporate Affairs
Ria	P24	Corporate Affairs
Kathy	P25	Commercial Support
Ruth	P26	CRS Liaison
Elise	P27	Commercial Support
Fiona	P28	Corporate Affairs
Cecilia	P4	Infrastructure Team
Earl	P29	Corporate Affairs
Erica	P30	CRS Liaison
Josephine	P31	Customer Relations
Joe	P32	Infrastructure Team
April	P33	Customer Relations
Sajita	P34	Customer Relations
Callum	P35	Product Team
Janet	P36	Commercial Support
Jim	P9	Subsidiary Company
Claudia	P37	Supplier Company
·	·	

Alias	Identifier	Position
Polina	P38	Subsidiary Company
Arnold	P39	Customer Relations
Kurt	P40	Product Team
Sandra	P41	Commercial Support
Jay	P42	Infrastructure Team
Lee	P43	Infrastructure Team
Lara	P44	CRS Liaison
Jamal	P45	Human Resources
Leona	P46	Human Resources
Martin	P47	Infrastructure Team
Esther	P48	Infrastructure Team
Oscar	P49	Customer Relations
Carrie	P50	In Shop
Julia	P51	In Shop
Lilly	P52	Subsidiary Company
Sean	P53	Customer Relations
Jed	P54	In Shop
Eleanor	P55	In Shop
Lilo	P56	Subsidiary Company
Oliver	P57	Customer Relations
Tim	P58	Supplier Company
Anna	P59	Human Resources
Charlie	P60	Infrastructure Team
Tao	P61	Product Team
Dana	P62	Product Team
Mary	P63	Product Team
Peter	P64	Infrastructure Team
Patrick	P65	CRS Liaison
Rosie	P66	Human Resources
Loraine	P67	Human Resources
Linda	P68	CRS Liaison
Samantha	P69	Commercial Support
Dana	P70	Supplier Company
Mike	P71	Subsidiary Company
Samuel	P72	CRS Team

Appendix 2 NVivo Coding Example 'Responsibility-Sustainability Cares'

Home Create	e External Data	Analyze Query Explore Layout	View			
*		S Cut		W. D. C. L.	PDF Selection	<b>4</b>
Open	Properties Edit	Paste & Merge v B I U A v A /	H:	Neset Settling	Select	Find
	Item	Clipboard Format	Paragraph	aph Styles	B	Editing
	Look for:	• Search In •	Nodes	Find Now Clear	ar Advanced Find	
	Nodes					
Node Matrices	<b>№</b> Name		/ Sources	es References	Created On	Created By
	<u> </u>	Social cares and concerns	39	202	14/05/2015 04:02	70
	•	Biodiversity	03	8	27/07/2015 11:43	70
	<u> </u>	Cllimate, carbon, energy	7	20	27/07/2015 11:31	Ы
	<u></u>	Diversity & inclusion	00	12	13/05/2015 10:49	Ы
	<b>(</b>	Eco impact reduction	7	80	27/07/2015 11:53	Ы
	<u></u>	Education & people development	00	13	13/05/2015 10:11	Ы
	<b>(</b>	Environment as a whole	14	22	27/07/2015 12:00	Ы
	<b>(</b>	Environmental protection	8	33	27/07/2015 11:55	Ы
		Health Health	7	16	27/07/2015 12:05	OL.
	<u> </u>	Infrastructure	7	80	13/05/2015 10:32	Ы
	-	Jobs & employment	o	12	13/05/2015 10:42	ы
		Natural resource use	7	80	27/07/2015 11:47	70
	-	Quality of life & wellbeing	9	10	27/07/2015 12:02	70
	<u>+</u>	Safety	6	16	27/07/2015 12:07	Ы
	<u>+</u>	Socio-economic development	6	11	13/05/2015 10:50	Ы
	-	Transparency	4	7	13/05/2015 10:35	70
	-	Unique cares	14	19	13/05/2015 10:22	70
	•	Waste & recycling	2	22	27/07/2015 11:42	0
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Appendix 3 NVivo Coding Example 'Business Model Actors'

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# Appendix 4 Consent Form Used in The Company Research



# The Company/Manchester Business School Research Project on 'Being Responsible'

# CONSENT FORM

If you are happy to participate please complete and sign the consent form below

				Initial Box
1.	I confirm that I have read the attach opportunity to consider the informati			
2.	I understand that my participation in time without giving a reason and wit			
3.	I understand that the interview will b anonymous	e audio-taped and that my na	ame and position will remain	
۱a	agree to take part in the above projec	t		
Na	me of participant	Date	Signature	
Na	me of person taking consent	Date	Signature	

### Appendix 5 Participant Information Sheet Used in The Company Research



#### The Company/Manchester Business School Research Project on 'Being Responsible'

#### Participant Information Sheet

You are being invited to take part in a research study which comprises part of a PhD research project. Before you decide it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please ask if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part. Thank you for reading this.

#### Who will conduct the research?

Oliver Laasch, Marie Curie Research Fellow at Manchester Business School

#### Title of the Research

'Being Responsible' and the Performativity of Normative Business Models

#### What is the aim of the research?

Project Aim: To understand how 'Being Responsible' (BR) performs in different parts of The Company Project Objectives:

- Understand the origins and context of BR
- . Understand "where" BR goes and what effects it has in these locations.
- Identify areas of opportunity and for learning in the implementation of BR.
- Harmonize BR and commercial business activities and create synergies.

#### Why have I been chosen?

You have been chosen due to your relationship to and experience with "Being Responsible".

#### What would I be asked to do if I took part?

To take part in a tape-recorded interview that will last between 30 and 60 minutes and/or in a workshop of the same duration. Your name and position will remain anonymous

#### What happens to the data collected?

The data will be typed into an interview manuscript and the content of the manuscript will be analysed to reach the aims of research specified above.

#### How is confidentiality maintained?

All interviewees' names and positions will remain anonymous. Confidentiality will be guaranteed by the University of Manchester's stringent ethical requirements.

#### What happens if I do not want to take part or if I change my mind?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time without giving a reason and without detriment to yourself

#### Will I be paid for participating in the research?

No, payment will not be made to interviewees

#### What is the duration of the research?

The core research will take place from June 2014 until Dec 2014, with most activity in June-July 2014, while follow up activities may still take place until December 2015.

#### Where will the research be conducted?

The research will take place at the The Company headquarters with possible site visits to other locations.

#### Will the outcomes of the research be published?

Yes, details of the research will be published. However, the names of interviewees will not be mentioned

#### Contact for further information

Oliver Laasch
Email: oliver.laasch@mbs.ac.uk
Tel: +44 (0) 161 275 6497; +44 (0) 744 046 1190
Manchester Business School | The University of Manchester | Room 5.08 Harold Hankins | Booth
Street West | Manchester M15 6PB

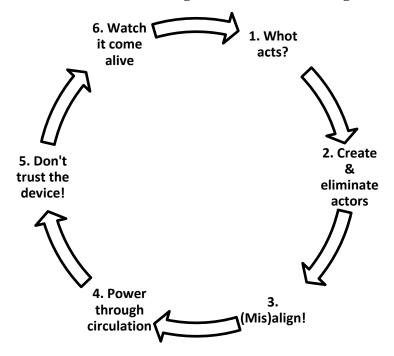
#### What if something goes wrong?

If a participant wants to make a formal complaint about the conduct of the research they should contact the Head of the Research Office, Christie Building, University of Manchester, Oxford Road, Manchester, M13 9PL.

# Appendix 6 How to Craft Business Model Change in an Actor-Network?

What can practitioners interested in changing their business models take away from this thesis? Several of the insights into the dynamics of business model change from this thesis can be summarized in a coherent set of implications and recommendations for crafting business model change. These recommendations can be formulated as six recommendations for action which together can be rearranged to establish a process of 'crafting business model change' (see Figure 14). This process model combines the dynamic business model states (logics, devices, actor networks) with insights from the empirical research with the actor-network theory perspective, resulting in a novel approach for making business model change happen. This approach is significantly different from both the linear (design to implementation) business model design approach (Osterwalder, et al., 2005; Osterwalder & Pigneur, 2010) and from the more novel business model experimentation approaches (Brunswicker, et al., 2013; Chesbrough, 2010; McGrath, 2010; Sosna, et al., 2010). The language of the model has been chosen deliberatively 'catchy' and little 'academic' in order to appeal to a business practitioner audience. However, the connection to research in this thesis has been made explicit. The text includes references to the papers of this thesis and to relevant pieces of actor-network literature in parentheses, to show how the recommendations are anchored in research.

Figure 14 Recommendations for Crafting Business Model Change



- 1. Whot acts? A first step for making business model change happen is to understand who and what ('whot') actually enacts the business model. These actors continuously create and recreate a company's business model by enacting the logic of doing business. A prerequisite for making business model change happen is to have a sound appreciation of the actors, because they are 'whot' constantly creates the business model reality. Only if this network of actors changes, the business model they enact will change (Papers 6, 7). In conventional business model innovation and change, human beings would be considered the main actors, while from the perspective of 'crafting business model change', actors may also be 'things'. For instance, a balanced scorecard and its indicators, which orients the action of a company's executives may as much enact a company's logic as any human actor (Papers 6, 7). When identifying business model actors, the primary criterion should be agency, if something or someone actually does enact the business model logic or not. Attempts to identify this agency by the often considered 'obvious' criteria, such as explicit affiliations with the business model or hierarchical power, would be misguided. As we have seen in The Company, for instance, a business model description in the annual report explicitly called business model, did not act, while the 'Being Responsible' device was a highly effective business model change actor (Papers 4, 5, 6). The same holds true in terms of hierarchical positions as an indicator for business model agency. A headquarters strategy crafted by a company's CEO and the C-suite leadership team may as much enact and shape a business model logic as a new product developed by a junior member of the design team.
- 2. Create and eliminate actors. If the business model reality is 'whot' enacts it, the actor network, changing the business model must mean changing the actor network. A tendency of business model design thinking is to design new devices to change an existing business model or to create a new one. However, before doing so, one might consider to think about which key actors exist in the network that stabilize the enactment of the 'old' business model logic to be changed (Paper 5). For instance, the business model change of petroleum-based energy companies (e.g. BP's attempts) to become 'green' energy companies will be close to impossible as long as the actor petroleum dictates the dominant business model logic. Creating new actors, such as The Company's 'Being Responsible' device (Papers 5, 6) may change the existing actor network by enrolling actors to enact the 'new' business model logic it has inscribed. In the process, such a device can weaken the power of the key actors enacting the 'old' business model, or even subversively enrol them

to enact the new business model (Paper 6). In summary, the task is to, in parallel, create and eliminate actors in order to shape the actor network.

- 3. (Mis)Align! So that a business model device, or other actor, can change the existing actor network it has to be designed, or 'inscribed' with a logic significantly distinct from the 'old' business model logic enacted (Papers 5-7). Engaging into such 'deliberate misalignment' and inscribing a vision of the new business model logic into the device, programs it to define the other actors it enrols to enact this new business model logic. However, to create a stable business model such initial business model misalignment has to result in a subsequent realignment process. In such alignment, the device will have to succeed to enrol the vast majority of business model actors to enact the new business model logic (Paper 1). A number of companies have begun to create a device-internal misalignment between commercial and CRS logics in the business model descriptions included in their annual reports (Papers 3, 4). This type of misalignment may be an additional way of creating 'productive tensions' that lead to a changed device, which in turn may change the business model if the device circulates.
- 4. Power through circulation: In order to misalign and realign a business model actor network, having a misaligned description is not enough. If a device is inscribed to enact change, but does not get into contact with other actors to enrol them, or lacks the power to enrol them, change cannot happen (Paper 7). So, business model change devices have to circulate across the business model actor network in order to reach the actors and to enrol them into enacting the new business model logic. A key characteristic for devices to ensure circulation is that they are relevant in all different sites of the actor network and that they leave enough room for interpretation, to be adapted to the different sites and communities of actors (Star & Griesemer, 1989). In The Company, the 'Being Responsible' device was framed as company value relevant for and to be translated into their respective positions by any actor in The Company (Paper 5-7). However, actors are typically already enrolled in an old business model (Paper 6). So it will require power to win them over and enrol them into the new business model (Paper 7). In The Company, it required an initial push and chaperoning by the CEO and the newly created 'Being Responsible' team 'selling' the new logic in order to enrol first actors and to make it widely known, to circulate it across The Company (Papers 6, 7). After that, the power of 'Being Responsible' increased with every new actor enrolled. It developed power through circulation.

- 5. Don't trust the device! As the business model change device may have power to enrol other actors to enact the new logic, other devices may vice versa have the power to enrol the device into the old logic. At any point in time, the device inscriptions might be changed (Akrich, 1992; Akrich & Latour, 1992) by another powerful actor. The device might be 'hijacked', to enact the old business model logic and not the new one. It may 'betray' its creators who originally inscribed it (Callon, 1986a). Business model change practitioners will have to maintain a delicate balance. Devices have to remain sufficiently vague for them to be circulated and adapted across the network, but also need a stable core logic (Star & Griesemer, 1989). Maintaining the device stable requires considerable effort (Cooren, et al., 2007; Latour, 1987).
- 6. Watch it come alive. Once a business model device has built a strong actor network, it will have come alive. Such complex actor networks will develop their own dynamics. Accordingly, excessive intervention and control attempts will not only be rather ineffective, but they may also disturb the enactment of the new logic. In The Company, several interviewees working with the 'Being Responsible' device made statements along the lines of 'my ambition is to make myself entirely redundant' [Paul, Commercial Support, P20]. With such statements, the interviewees were eluding to the goal to achieve a situation where the actor network enacting the 'Being Responsible' business logic would have become independent. It would maintain and reproduce itself without the need for further intervention by its creators and chaperons. If that happened, there would be a point in time where it becomes necessary to acknowledge that it has come alive and has its own internal momentum. This realization implies a focus of attention of business model management activity towards the early stages of a new business model. For the actor network enacting the new business model logic to do 'the right thing' in the more mature stage of development, depends on the device inscription and on the process of enrolling actors in its earlier stages.

## PART B. PAPERS

### PAPER 1. THEORISING THE NORMATIVE BUSINESS MODEL (NBM)<sup>1</sup>

Sally Randles and Oliver Laasch.

Manchester Institute of Innovation Research, University of Manchester [Published as Randles, S. & Laasch, O., 2016. Theorising the Normative Business Model (NBM).

\*Organization & Environment, 29(1), pp. 53-73.]

#### **Abstract**

We begin with a critique of the ontological underpinnings of the mainstream business model literature with its origins in design-science; and offer instead insights from sociology and organizational institutionalism to argue for a more accurate representation of actual processes of organizational transformation, especially necessary where scholarship is concerned to address societal mission-oriented normative cares beyond the objectives of efficiency and profit maximisation. We propose the foundations of a new theoretical construct: the Normative Business Model (NBM) distinguishing deep institutionalization as the embedding of values (normative orientations) into the design, practices and identity organizations. The NBM comprises four cornerstones: i) normativity ii) (de)institutionalization and deep institutionalization processes iii) entrepreneurialism iv) economic and financial governance. A case overview of Arizona State University is used to highlight that the NBM refers to the full range and variety of organization types, not exclusively businesses.

#### **Keywords**

normative business model (NBM), normative orientations, Institutional transformation, deep institutionalization, (de)Institutionalization, institutional entrepreneurialism, sustainability, ontology

<sup>&</sup>lt;sup>11</sup> The authors wish to acknowledge support from the European Commission FP7 project RES-AGorA Responsible Research and Innovation in a Distributed Anticipatory Governance Frame: A Constructive Socio-Normative Approach' which funded the ASU casework; and the Marie Curie 'Innovation 4 Sustainability' Initial Training Network which together made this paper possible.

# Introduction: A Proposed Revisionist Approach to the Mainstream Business Model Literature

We preface our paper with a question, which at the same time highlights our quest for a fundamental revision of the underlying ontology which sustains the mainstream literature on business models. This is not to undermine the nine basic elements of acknowledged originator of the modern business model concept, the Osterwalder design-science approach (2004) with its 'canvas' tool-kit methodology (Osterwalder et al 2010, 2014).<sup>2</sup> Rather our question is more fundamental and of an ontological nature and asks 'what is the business model as a social object and how does (it) exist in the world?' To address this question we propose to move away from design-sciences towards a sociologist-institutionalist perspective. From the direction of Actor-Network sociology, for example, the study of how social objects exist in the world considers the associations, disassociations, and transformational processes that involve people interacting with technical objects (Callon & Latour, 1981). And from the direction of institutionalism, scholars turn attention to how the rules, norms and incentives that guide and steer organizational behaviors emerge, stabilise and decline, taking account of actors positions and stakes held in the maintenance or erosion of different positions, including and critically the structuring of power. This focuses attention on legitimacy-building involving the advocacy of key actors, the enrolment of other actors, and the formation and stabilisation of self-identity (Deephouse & Suchman, 2008). It also focuses on processes of institutionalization (the stabilisation of norms) as a source of maintenance but also as a source of path-dependency and lock-in. This is a historically and culturally contingent process, and bears no resemblance to the straightforward linear translation of the nine-elements Osterwalder design into organizational cultures, via the simple 'black-box' step of implementation, this being the implicit operational mechanism of the Osterwalder model, where the leitmotif for successful strategy is not the build-up of legitimacy towards the cultural persistence of values, but 'organizational efficiency'.

Indeed Boons and Lüdeke-Freund (2013, drawing upon Wirtz, 2010) helpfully review the wider mainstream business model literature classifying it into three streams, and partially come to similar conclusions. A first focuses on technology, acknowledging the

<sup>&</sup>lt;sup>2</sup> These nine elements are well-known and comprise: value propositions, customer relationships, customer segments, channels, key activities, key resources, key partners, revenue streams and cost-structure. Others have re-classified these elements in different ways for example Boons and Lüdeke-Freund (2013) combine Osterwalder 2004 and Doganova and Eyquem-Renault (2009) to propose a four-element model: Value proposition, supply chain, customer interface, and financial model.

link between business model perspectives; computer design-sciences approaches and internet-based models of profit-generation. A second stream focuses on supply-chain relations and aims to design improved business systems tools for value-chain management. A third is strategy-oriented and adds market competition to the efficiency focus. In calling for a more fundamental revisionist approach, we argue in this paper that an adaptive or modification of this mainstream conceptualisation, is not an appropriate way forward in contexts which seek to understand how organizations embed a wider range of societal cares, concerns and values (such as sustainability) than the mainstream business model focus on efficiency and profit-maximisation considers, into the deeper institutional logics of intra-and inter-organizational forms. To summarise, our critique of the mainstream business model ontology (and therefore our case for a revisionist approach, rests on three axes of critique. First, paradoxically the mainstream business model literature assumes a conceptualisation of strategy which pays no attention to *change processes*, taking strategy as process and as practice in real-world organizational settings, a point which management scholars have long recognised (e.g. Whittington, 1993; Whittington, 2007; Vaara & Whittington, 2012). By contrast the NBM uses learning from the sociology and institutionalist literatures to deductively draw upon a corpus of real-world micro-level cases studying organizational change and institutionalization processes, where for example legitimacy-building becomes the focus of scholars' attention as the conduit of change rather than assumptions about efficiency-maximisation. Second, and linked to the first is the absence of agency in the mainstream business model literature, as acknowledged by Boons and Lüdeke-Freund (2013). In line with the call from Boons and Lüdeke-Freund, the NBM places agency centre-stage via the lens of institutional entrepreneurialism. Thirdly, there is a wide gulf between statements of 'value proposition' and processes which stabilise values into the normative bedrock of an organization. Understanding the criticality of normative underpinnings of organizations (and implications for changing inherited normative orientations) is the fundamental premise of the Normative Business Model.

Thus, our paper is rooted in an institutionalist sociology tradition, and is motivated to provide better theoretical description of *social reality* (Archer, 1998) than the mainstream business model literature provides. By extension we have some frustrations with the sub-branches of the business model literature which variously extend the original Osterwalder Business Model Canvas to create templates and frameworks respectively

incorporating perspectives on sustainability, responsibility, ethics and more recently humanism criteria.<sup>3</sup> For our paper, in contrast, we prefer to enter from a very different direction in seeking to provide a simultaneously broader, and yet more integrative, business model concept than this epistemological tendency to 'add' new dimensions to the Osterwalder 'standard' allows. Our different direction is much inspired by the emergent scholarship in the cognate field of responsible innovation, in particular the notion of defacto governance (Rip, 2010); the sociology of normative life (Sayer, 2011) and the notion of deep institutionalization (Randles, Dorbeck-Jung, Lindner, & Rip, 2014; Randles, Gee, & Edler, 2015). Our re-conceptualisation leads us to theorise a new concept: the *Normative* Business Model (NBM). The fundamentals of it are four-fold. First it places normativity centre-stage, understood in two respects. First as the deep embedding (institutionalization) of a variety of values translated into guiding norms and de-facto rules with corresponding rewards and sanctions, into the logic and practice of organizations, ie processes of normalisation, indeed the instituting of ,new norms'. Second and related to the first, taking the normative institutional pillar as a set of moral or ethical steers to actors' behavior, as indicated by Scott (1995). Further, as predicted by the institutional logics perspective (Thornton & Ocasio, 2008) we find established organizations de-facto embody a number of frequently contested normative orientations, emanating from a range of internal and external incentive structures and legacy practices and modes of governance. It follows that any institutional transformation project needs to involve the identification, critical reflection upon and articulation of the harm caused by existing institutional logics, as well as an ability to voice, and hold positions which facilitate the accessing of power that enables the mobilisation of resources; and to enact or oversee the enacting of a long (and inevitably contested) journey of reform and re-design, by no-means linear and fraught with difficulty and indeterminacy as to its success. These pre-existing normative orientations may take the form of competing logics, for example profession, bureaucracy, and market logics (Thornton & Ocasio, 2008) or different normative predispositions which orientate different practices in different corners of the organization. These different normativities

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<sup>&</sup>lt;sup>3</sup> The Normative Business Model has a number of cognates in the literature such as business model concepts related to the Social Enterprise (Darby & Jenkins, 2006; Grassl, 2012; Müller, 2012; Pirson, 2012; Yunus, Moingeon, & Lehmann-Ortega, 2010), "green business" (Boyd, Henning, Reyna, Wang, & Welch, 2009; Henriksen, Bjerre, Øster, & Bisgaard, 2012; Sommer, 2011; Tsvetkova & Gustafsson, 2012), humanistic business (Laasch, Dierksmeier, Pirson, & Von Kimakowitz, 2014; Von Kimakowitz, Pirson, Spitzeck, Dierksmeier, & Amann, 2011), ethical business (Barnett, 1985; Sebastiani, Montagnini, & Dalli, 2012; Shelley, 2003), corporate social responsibility (Slack, 2012) and, of course, sustainable business as illustrated in the main text.

may be aligned and compatible or they may be misaligned producing a source of tension, resulting in contradictory impulses and outcomes. The study of the *de-facto* normativity of organizations is therefore not only a central theme of the NBM but also an important object of analysis in the articulation of new business model(s) research agenda.

Second, in foregrounding the notion of normative orientations we work at both a higher, and a lower, scale of granularity than, say, the notion of 'sustainability'. As such we take as a unit of analysis the more specific normative foci and their inter-relations and transformations over time, case by case. For example in terms of environmental governance we would disaggregate explicitly objectives of climate change mitigation, conservation of natural resources, or animal welfare. In terms of human well-being we would disaggregate objectives of healthy lifestyles, justice, poverty alleviation, inclusive education etc. Thence the Normative Business Model is both broader and more specific than say the Sustainability Business Model of Stubbs and Cocklin (2008). Indeed, closer to our concept in aggregative terms are notions of humanism as human flourishing (Melé, 2003; Pirson & Lawrence, 2010), well-being or variations of the 'good-life' (Schröder, 2013) which however in the NBM we anchor more explicitly as an orientation of collective, societal cares over individualism. This second understanding of institutionalised normativity in organizations – a sub-set focused on the full range of variety of societal collective cares and concerns - is a second theme and object of analysis which we consider differentiates the NBM from counterparts in the business model literature.

Third, it injects agency into the heart of the business model concept. This is not the same as saying that 'people matter' or even that leadership and the role of individuals matters, which is already taken as given in the existing business model literature (for example Stubbs and Cocklin 2008) but rather *theorising* agency (and its relation to structural conditions and conditioning); a challenge that has been taken up by some institutional entrepreneurialism scholars (Mutch, 2007). Furthermore the perspective on institutional entrepreneurs places differential power positions and power relations centre stage (Hardy & Maguire, 2008), an element that is distinctively and regrettably absent from the contemporary business model literature.

Fourth, our concept both broadens the range of organizations covered by the NBM term, whilst simultaneously specifying, separating out, and explicitly analyzing the range of normative orientations. This has a number of associated implications. First the kinds of organizations we would include in the NBM are not limited to businesses. Rather since a

multiplex of inter-penetrating kinds of organizational forms exist, we find it problematic to isolate the category 'businesses' for the application of the NBM. Our concept therefore includes corporations and firms, but extends to other kinds of organization with a public or social mission, such as education and research; or the full sweep of constituted organizations covering charitable foundations, social enterprises, trusts or companies limited by guarantee. Indeed this interpenetration of organizational forms also draws attention to the fact that many not-for-profit, social mission oriented organizations contain a commercial trading arm. And yet we incorporate into the NBM the term *business* for a reason. That is that *all* organizations, regardless of the terms of their constitution or governance structure require the means for economic reproduction to survive. A viable financial model is therefore a critical condition, separate from but inter-connected with, its normative orientation, and equally a focus of analysis and evaluation when researching empirical examples of the NBM.

These cornerstones of the NBM are elaborated through a literature review in Section 2. The discussion and conclusions Section 3, illustrates the NBM through its application to the twelve-year organizational transformation and re-design project of one organization: Arizona State University (ASU); a public university of the United States. A case-study of ASU was undertaken as part of the RES-AGorA<sup>4</sup> project and is reported in more detail in Randles (2015). Through this example we make the point that the NBM is not restricted to one organization type. Indeed we reject the demarcation of NBM by organization type and would prefer to differentiate clusters of organizations that share or align normative orientation as a basis for classificatory delineation; according to different in-common normative and teleoaffective (means-end-purpose, Schatzki 1996) 'niches', and not according to organization categories (businesses, non-government organizations and charitable foundations, publicly funded organizations etc.).

The notion of the Normative Business Model (NBM) of course invites comparison with the related concept of the Sustainability Business Model (SBM) put forward by Stubbs and Cocklin (2008). The similarities and differences between the NBM and SBM are overviewed in Section 4, reconnecting the NBM to the business model literature. Finally, in Section 4, the theoretical contribution of the paper is reprised, and the implications for a forward research agenda are outlined.

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<sup>&</sup>lt;sup>4</sup> http://res-agora.eu/news/

#### Theorising the Normative Business Model

Institutionalist theory forms the basis of our proposition of the Normative Business Model (NBM). Of course institutionalist scholarship is vast, with tentacles originating in different traditions in sociology, economics and cultural theory. The sub-literature in which our paper is located is organizational institutionalism (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008) and the primary orienting question for the NBM is a transformative/process one. It asks how do values become 'normalised' into the essence of organization? The NBM concept foregrounds the *de-facto* normative orientations of actors and how these become institutionalised, whether or not there exists a formal business model artifact or 'device' in the form of a business model strategy document or template. Whilst not connecting directly with our perspective grounded in institutional sociology and change processes, Breuer and Lüdeke-Freund (2014) in fact pursue a complementary line, combining concepts of the normative foundations of entrepreneurial activity; the formation of normative visions; and normative innovation management in the creation of valuenetworks, arguing that this inter-organizational form holds promise to drive systemic change towards societal problem-solving. Complementary to, but differentiated from Breuer and Lüdeke-Freund, the NBM rather is concerned with the social process of how and why business model artifacts are generated (the production of business-model methodologies, templates, technical tool-boxes), and posits that the continuous interplay between the de-facto business model and a range of circulating governance instruments in the organization, such as strategy and annual reports, business plans, codes of conduct, financial and performance management and reward systems (see the fourth cornerstone of the NBM 'economic and financial governance') contributes to both the performation and institutionalization of a de-facto coherent normative business model, or not. The totality of these artifacts and processes, we argue, contribute to how values become embedded to constitute the normative identity, sense-making, and teleoaffective (means-end, purposeoriented) dimension of the organization, as well as the material social practices of actors. Indeed, we will argue that when the de-facto and the artifactual dimensions are aligned within an organization, deep institutionalization results from the interaction of these broad correspondences with flexibly interpreted local responses – known as translations (Callon, 1986) - across the organization. But when they are misaligned, or confusing, the artifactual and de-facto business model logics may be resolved in practice through other means (involving contestation, struggles and compromises, as rational actors seek to reconcile for themselves competing institutional logics, such as sustainability and commercial

maximisation logics, or values-pursuit depicted as collective projects, with incentive systems which reward highly individualised behaviors).

Therefore within the sub-literature on organizational institutionalism we are interested in a particular strand concerned with looking deeply into the micro-foundations of processes of institutionalization (and its resistances) and its corollary, deinstitutionalization (Dacin & Dacin, 2008) which we might consider akin to a Schumpetarian continuous process of creative-destruction (innovation). This cornerstone equally bridges to the burgeoning literature on institutional entrepreneurialism. Developed in part to inject agency into the perceived overly-structuralist macro-focused institutionalist tradition, the concept of institutional entrepreneur addresses the 'conundrum' of institutionalization processes which is: How can actors gain insight into, and potentially transform or overturn those exact taken-for-granted powerful structures in which they are themselves embedded (institutions)? (see Weik 2011).

For the rest of this section, we take these conceptual cornerstones into a systematic elaboration of the four constitutive elements of the Normative Business Model by discussing in turn i) Normativity, ii) institutionalization/de-institutionalization processes iii) institutional entrepreneurialism and iv) economic and financial model governance.

#### Normativity

There are a range of understandings of normativity in the literature, and although all are related to the basic idea of the *normalisation of values-orientation*, it is necessary to unpack the different applications before clarifying what we mean by *normative* in the Normative Business Model. Associated mainly with critical theory in philosophy and political sciences (for example Gerring & Yesnowitz, 2006, Honneth 2007) the so-called normative turn announced a desire to intentionally and boldly value, and by extension reinject *critique* as a specific purpose into social sciences and philosophy. It also involves revealing, and thereby challenging the normative foundations of existing scholarship, in particular to critically confront claims to value-neutrality (Gerring & Yesnowitz, 2006).

For now we move to the dimension of normativity that we attribute to the *agents* of the Normative Business Model. The NBM rests first on the premise that caring agents are values-oriented; and second that institutionalization processes involve the embedding of these values – their *normalisation* - into organizational purpose and practice. Central to this is the recent work of Andrew Sayer (2011) who argues that everyday life is overflowing with the actions of caring agents, evidenced each and every day when people enact caring

for family, friends, neighbours and colleagues; together with other, more conscious and more removed forms of collective action such as volunteering, raising money for charity, or organising or lobbying for a particular public cause such as environmental conservation, justice and human rights, or the treatment and eradication of a particular disease. And yet this significant and widespread aspect of daily life, claims Sayer, is all but ignored by contemporary social sciences, both as an object of theory and empirical investigation. Normativity as values-orientation embedded into practice extends to working life and takes visible shape as the valuing and taking pride in a job well-done. As Schatski's work on social practice (Schatzki, 1996; Schatzki, 2002) highlights, it also has a teleo-affective, means-end, or purposive dimension, a linking of ends-means and moods appropriate to a particular practice and that governs what it makes sense to do beyond what is specified by particular understandings and rules (Schatzki, 1996).

The study of the NBM is therefore first and foremost the study of normative life. It seems self-evident that organizations comprise a *variety of normative orientations*, both as an intra-organizational feature and as a key characteristic of inter-organizational differentiation. In order to empirically elaborate the NBM, research would focus on the landscape of normative positions evident both intra- and inter-organizationally, to highlight and appreciate and clarify this variety, rather than the homogenising and isomorphic tendencies of traditional institutionalist research (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008).

A final area of attention concerns how different normative positions *relate to each other*. Early indications from our primary research <sup>5</sup> suggests that contestation over normative orientation is a prime, but also a deep, source of antagonism in instutionalisation/de-institutionalization processes. The role of normative conflict in these processes is recognised as an under-researched area and a rich avenue for future research (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008). However we can already conjecture that multiple, co-existing normative orientations are likely to be held simultaneously, producing a mix of dominant/subordinate and aligned/misaligned relations, with different outcomes including normative re-enforcement, contradiction and ambiguity. These normative relations warrant further research as they have not as yet

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<sup>&</sup>lt;sup>5</sup> See also our Res-AGorA case studies which stress contestation and competing claims as to what constitutes *the public good* in technology controversies http://res-agora.eu/news/

coalesced as a focus of empirical research in the organizational institutionalism research project (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008).

If normative life is an under-theorised and under-researched area, institutionalization processes themselves are much better understood. It is our assertion that institutionalization/de-institutionalization processes are a *critical dynamic* of the embedding of normative orientations into organizations. We therefore briefly reprise these understandings before highlighting the role we believe *reflexive institutional entrepreneurialism* plays in these processes.

#### (De)Institutionalization and Deep Institutionalization

The early cultural literature on institutions coined the term *isomorphism* and was concerned to explain remarkable levels of order and homogeneity in social life (DiMaggio, 1988). Conceptualisations of institutions emphasised the range of mechanisms which bring about order, cohesion, and persistence and sought to explain their effects and consequences (Scott, 1995; Barley & Tolbert, 1997). Earlier, Berger and Luckman (1966) understood institutions as 'social constructions... that is, structures, practices and meaning systems that come to be taken for granted through their repeated social enactment' (Berger and Luckman 1966 in Zilber 2008: 153). We find Scott's (1995) definition particularly relevant to our paper:

'Institutions consist of cognitive, normative and regulative structures and activities that provide stability and meaning to social behaviors. Institutions are transported by various carriers: cultures, structures and routines – and they operate at multiple levels of jurisdiction' (Scott 1995, p. 33 in Greenwood et al 2008)

Scott's three 'institutional pillars' classification therefore comprises:

- 1) The *regulative*, which guides action through coercion and threat of formal sanction
- 2) The *normative*, which guides action through norms of acceptability, morality and ethics
- 3) The *cognitive*, which guides action through the very categories and frames by which actors know and interpret their worlds

(Scott 1995, p. 132 in Garud et al 2007, our italics)

We can see from this understanding therefore the centrality of normative pillar to the essence of institutions. Institutions are constituted *through* the normative pillar: normative structures define and compose institutions, contributing to their maintenance, persistence

and reproduction. Indeed according to Thornton and Ocasio (2008), the literature to date has failed to acknowledge the power of normative orders in constraining action. But equally (as we will see below) normativity is one of the sites of struggle around which institutions change. The interaction *between* normativity and institutionalization processes is therefore a key analytical component of the NBM.

This line of thinking brings us to a main criterion of the NBM: that we consider it a model which both describes and seeks to account for *transformation*. It is a dynamic model in the sense that it attempts to model *change* in terms of institutionalization (and deinstitutionalization) processes oriented towards a variety of normative goals. Frustrated by the growing corpus of institutionalist literature focusing on structural persistence and homogeneity, some scholars turned instead to seek explanations for institutional change, and to processes of institutionalization (Barley & Tolbert, 1997).

The critical realist sociologist Margaret Archer is similarly interested in processes of change, but her primary object of attention is societal transformation for which she has developed a dualist (agency/structure) Morphogenesis/Morphostasis (M/M) model of societal transformation (Archer, 1998). Her concern is to understand the relationship between agency and conditioning structures as non-deterministic, allowing for contingency in the causal powers of conditioning structures; and the differentiated nature of agency. She says 'There is yet more ... work to be done on the conceptualisation of structural conditioning, on the specification of how structural influences are transmitted (as reasons not hydraulics) to particular agents in determinate positions and situations (the who, the when and the where) and the strategic combinations which result in morphogenesis rather than morphostasis' (Archer 1998, p. 379, original parenthesis). Archer's particular contribution is in opening the box of Agency to understand its differentiated nature. She theorises agents who are differentiated and differently empowered not only through pregiven socio-structural positioning, but also through encountered opportunity. Her work finds that under certain conditions, agents can influence, and overcome the conditioning powers of structural forces, but also that certain kinds of agent become better suited to survive/flourish (or struggle) within specific structural circumstances than others, as the latter shift and mutate over time and space (Archer, 2012).

Following Archer (2012), we will argue that *reflexivity* is a critical component of both agency and institutional transformation, and we extend this point to suggest that reflexivity plays a crucial role in enabling of normative questioning. We introduce it here,

and will revisit it below under institutional entrepreneurialism, because we propose reflexivity as a critical component of the NBM, gluing together the elements of normativity, institutionalization/deinstitutionalization and institutional entrepreneurialism. Reflexivity may be considered in simple terms a capacity to undertake 'internal conversations' which fold-back to monitor, evaluate and consider critically the consequences which result from our engagement and interaction with the external world. Sayer (2011) says: 'We have – or rather can develop – a capacity for reflexivity, not merely in terms of monitoring and evaluating what is happening, but in being able to evaluate our own understandings, criteria and goals by 'talking to ourselves' (Sayer 2011, p. 116 drawing upon Archer 2003, 2007). Archer takes these arguments further, by constructing a typology of reflexive agency (Archer, 2012). She concludes that different modes of reflexivity are better (or worse) suited to the institutional conditions of our time (late modernity), causing an ebb and flow 'rise and fall' of different kinds of reflexive agency according to the dominant institutional patterns of our time. She predicts the continuing rise of autonomous reflexives and meta-reflexives. Autonomous reflexives she qualifies as the New Spirit of Social Enterprise which appears to provide a plausible agency account consistent with the NBM. Autonomous reflexives, unlike meta-reflexives who take a more radical hyper-critical stance rejecting both market and the neo-liberal State (governance) logics of our time, combine the social skills needed to operate in more fragmented networked societies, with instrumental and calculative entrepreneurial skills and opportunistic logic, with well-articulated social and environmental concerns even where the latter might cynically be considered a 'veneer' of concern (p.166).

Notwithstanding there are significant differences between Sayer's sentient, caring beings (Sayer, 2011) and Archer's more cynical autonomous reflexives, both Sayer and Archer provide theories of agency, and describe the concrete kinds of actors who populate their respective theoretical accounts. These kinds of actor are most likely to provide the qualities and normative orientation, to provide the leaders, work-force, customers, suppliers and financiers of 'niche' clusters and organizational forms consistent with the NBM.

Having demonstrated that agency accounts are a critical component of institutional transformation and institutionalization processes, whilst both structural conditions and agency are variegated and contingent, such that institutionalization (morphogenesis) cannot be predicted as a linear cause-effect process, but rather swells with contingencies on both

sides of the dualism, this leads us to appreciate *institutionalization/de-institutionalization*; failed institutionalization (e.g. as described by Davis & Anderson, 2008) and deep institutionalization as equally contingent and context-specific possibilities, which we will briefly discuss now with reference to their relevance to this paper.

#### (De)Institutionalization.

An important ontological point must be addressed at this stage. That is, if social life *cannot* exist except for in its institutionalised form, then any process of institutionalization must involve a corresponding process of de-institutionalization. Although separable analytically (and so far they are completely separate strands in the literature) we view institutionalization and de-institutionalization processes as necessarily simultaneous. Like Schumpetarian creative destruction, institutional transformation must involve at the same time the break-down or otherwise altering of existing institutional arrangements, as part of the same process of instituting new ones. To represent this ontological point we offer a single compound term: (de)institutionalization. And importantly, depending on the variable characteristics of the existing institutional arrangements, such as the material and symbolic interests of the actors and the power relations holding existing structures in place (to use Bourdieu's term the **'Stakes** that are at Stake', Bourdieu (de)institutionalization<sup>6</sup> processes will be equally variegated. As Barley and Tolbert noted above, practices and behaviors are not equally institutionalised. They posit that variation depends on how long an institution has been in place and on how widely and deeply it is accepted by members of a collective. It follows that deep-rooted, taken-for-granted, and unconscious or 'invisible' institutions are difficult to change, in- part constrained by the problem that would-be reformers (actors) would need to be critically and consciously reflexive to the (damaging) powers of existing institutional arrangements, as a necessary precursor to conscious institutional change projects. Taking this range of possibilities into account, we can argue by extension that (de)institutionalization processes can be violent or smooth; strongly or weakly contested; successful in terms of achieving institutional transformation; or partially or unsuccessful at achieving it. Indeed, Dacin and Dacin (2008) build on Oliver's (1992) deinstitutionalization framework to offer six forms of deinstitutionalization. They are: decoupling, assimilation, dilution, dis-embedding, competition and erasure. Decoupling involves a fissure between the symbolic and the

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<sup>&</sup>lt;sup>6</sup> We differentiate our compound term (de)institutionalization which comprises simultaneous institutionalization/deinstitutionalization processes akin to Schumpetarian innovation as creative-destruction; from Dacin and Dacin's account of one side of this coin, i.e. deinstitutionalization.

substance, and/or performance of traditions, such that symbolic ritual may continue but it is no longer coupled strongly to the substance or function of the tradition. *Assimilation* involves absorbing old elements into a new tradition or institutional arrangement. *Dilution* takes assimilation further and occurs when the original arrangements become so diluted away from their core elements by new institutional components, themselves carriers potentially of different values and material interests, that the original cohesion of social norms and practice becomes blurred, 'lost' to the point of material and symbolic insignificance. *Disembedding* involves disconnecting core elements from each other until there is no longer a coherent systematic interconnected pattern. *Competition* involves the incursion of new logics and scripts that vie for the attention and support of key constituents and practitioners, while *Erasure* involves removal or replacement of key elements including historical revisionism and removal of collective memory.

Most, if not all of the above modes and strategies of deinstitutionalization involve power relations. Re-injecting attention to power is one of the explicit objectives of the organizational institutionalism (Lawrence, 2008) and institutional entrepreneur literature (Lawrence & Suddaby, 2006; Maguire, Hardy, & Lawrence, 2004), and is therefore a key component of both description and diagnostic analysis of the NBM.

#### Deep institutionalization.

Elsewhere, we propose that deep institutionalization occurs when

'a new-normal ... with its alternative values embedded into new incentive structures, orderings and understandings of good-standing becomes inscribed into revised norms and routines' (Randles, Dorbeck-Jung, Lindner, & Rip, 2014, p. 32).

Randles, Dorbeck-Jung, Lindner, and Rip (2014) foreground variants of *de-facto* responsible innovation comprising a variety of institutionalised normative framings accompanied by suites of governance tools, protocols, norms and devices serving to embed normative orientations and their associated values into research and innovation activities. The NBM, as a model of descriptive theory *of organizations* rather than research and innovation processes is motivated, none the less, by a very similar normative quest. This example allows us to propose four features of deep institutionalization: i) its long-haul, long-term and resilient nature; ii) its transformative dynamic: affecting institutionalization which creatively destroys prior orientations iii) its inter-dependent systemic nature,

comprising integrated and mutually supporting infrastructures of technologies, social norms and routines, governance tools as well as economic and ideological logics iv) is a methodological point: that we cannot truly evaluate the effectiveness of transformation towards particular normative goals *ex-ante*. We must wait and look back with the hindsight of history, in order to provide an *ex-post* evaluation of its 'success', judging it both on its own terms (the normative ambitions of the originators and leaders of it and those affected by it) coupled with any new *ex-post* evaluation criteria of future assessors of it. These four characteristics we provide evidence for in the ASU case at Section 3.

The discussion above identifies characteristics that we propose determine and differentiate deep institutionalization, as a set of necessary conditions. It involves effective transformation towards a set of articulated normative goals embedding values into practices and processes and orienting action towards those goals. Critical to this idea is the integration resulting from the alignment of multiple governance tools, devices, techniques and forms of agency to orientate and steer innovation towards expressed societal values and normative goals. Deep institutionalization would be the polar counterpoint to superficial or shallow institutionalization, which, for example, would entail the ad-hoc implementation of single management templates, frameworks, governance tools or devices. 'Shallow' or superficial institutionalization will sit on the surface of organizations and systems like oil on water, and will fail to transform or orient the underlying direction, structures, or incentives towards a new set of normative goals deemed 'more' or 'differently' responsible than earlier forms, or deemed more responsible than alternatives.

Before leaving the significance of deep versus shallow institutionalization processes related to the business model literature, a related note of caution arises from the institutionalists' critical stance on the adoption of 'greening' assessments, accreditation and standards protocols (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008; Fiss, 2008). Referring to the 'dark side of institutional processes', applying concepts such as institutionalized *rational myths* (Sahlin & Wedlin, 2008, p. 222) to sustainability and environmental issues, researchers such as Boiral (2007) are pessimistic about the authenticity of sustainability uptake. Boiral (2007) 'examined corporate greening as an institutionalised rational myth and revealed the extent to which the adoption of environmental standards was a ceremonial and potentially hypocritical environmental strategy (Greenwood, Oliver, Suddaby, & Sahlin-Andersson, 2008, p. 25). Similar concerns are raised under the terminology of *ethics-wash* (Randles, 2008) and

responsibility-wash Randles et al. (2014), whereas responsibility-overload refers to attempts to impose, from outside, new ideas and constructs of responsibility; on top of understandings which are already de-facto institutionalised into the norms and practices of an organization or collective group such as profession. Responsibility-overload is consistent with the mode of de-institutionalization labelled 'competition' by Dacin and Dacin (2008).

#### Institutional Entrepreneurialism

The growing literature on institutional entrepreneurs was originally motivated to reintroduce agency, power, interests and politics into traditionalist institutionalist accounts perceived to be too structural, with excessive focus on stability, stasis and isomorphism. It therefore goes hand in hand with institutionalization and institutional change accounts, equally motivated to re-inject agency. A feature is the so-called conundrum of agency concerned with how actors can reflect upon and change institutionalised structures and practices, in which they are themselves embedded (Garud, Hardy, & Maguire, 2007; Hardy & Maguire, 2008; Weik, 2011).

Analysis at first revolved around individual actors, as heroic change-agents <sup>7</sup>, holding subject-positions which gives them access to required social, economic, and political resources. So for example Maguire *et al* (2004) state that '*institutional entrepreneurship* represents the activities of actors who have an interest in particular institutional arrangements and who leverage resources to create new institutions or transform existing ones' (p. 657, original italics). They propose institutional entrepreneurship as involving three sets of critical activities:

- The occupation of 'subject-positions' that have wide legitimacy and bridge diverse stakeholders
- ii) The theorisation of new practices through discursive and political means
- The institutionalization of these new practices by connecting them to stakeholders routines and values (Maguire, Hardy, & Lawrence, 2004, p. 657)

But Weik (2011) launches a critical evaluation of the concept of institutional entrepreneur as a heroic individual. For Weik, this functionalist conception of a strategic individual actor is flawed. She revises the concept in two ways. First, for the agent of institutional

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<sup>&</sup>lt;sup>7</sup> In similar vein from within the management literature Chin, Hambrick, & Treviño (2013) find that the values-orientation of CEOs significantly influences the normative orientation of corporations.

change to have the capacity to think outside of the taken-for-granted nature of institutions within which they are themselves embedded, one would have to assume an agent with critical, *reflexive* capabilities. Second, she rejects the primacy of the individual agent in favour of *collective or dispersed agency* as a more appropriate conceptualisation of the agency of institutionalization processes.

For the NBM we take up and further develop Weik's institutional entrepreneur to create the collective and encultured concept of institutional entrepreneurialism. We consider that institutional entrepreneurialism combines the entrepreneurial goal-oriented capabilities of the Schumpetarian teleo-affective visionary; and the resource-mobilisation capabilities, opportunism, risk-taking and calculation of the entrepreneur; with capabilities of critical perspective and reflexivity. And yet reflexive capabilities are a necessary but insufficient descriptor of institutional entrepreneurialism which is also driven by a political will to re-script received institutions, and to imbibe a new set of public values and principles shaping actors' understandings of themselves and their relational interactions with others and with the outside world, being particularly accomplished boundary-crossing capabilities able to bridge, re-interpret and mediate different perspectives in novel ways (Hardy & Maguire, 2008). So, we would posit a re-conceptualisation of institutional entrepreneurialism as combining the rationality of entrepreneurial perspectives, with learned capabilities of critical reflexivity, as together constituting a set of learned, collectively shaped and themselves institutionalised features. These then are the features that we propose comprise the concept of collective, reflexive, entrepreneurialism. In it we see Sayer's sentinel normative agents and Archer's autonomous reflexives, coming to the fore.

#### Economic and Financial Model

The economic and financial model and financial governance dimension that we include here is relatively neglected by the organizational institutionalism literature. Rather we draw more deductively on the economic sociology of *market devices* literature (Callon, Millo, & Muniesa, 2007; MacKenzie, Muniesa, & Siu, 2007) to propose its significance, and its importance in recursively interacting and therefore re-enforcing the other elements of the NBM. We therefore tentatively offer the beginnings of a contribution concerning the significance of the economic and financial governance and control dimension *to* the organizational institutionalism literature via the NBM lens.

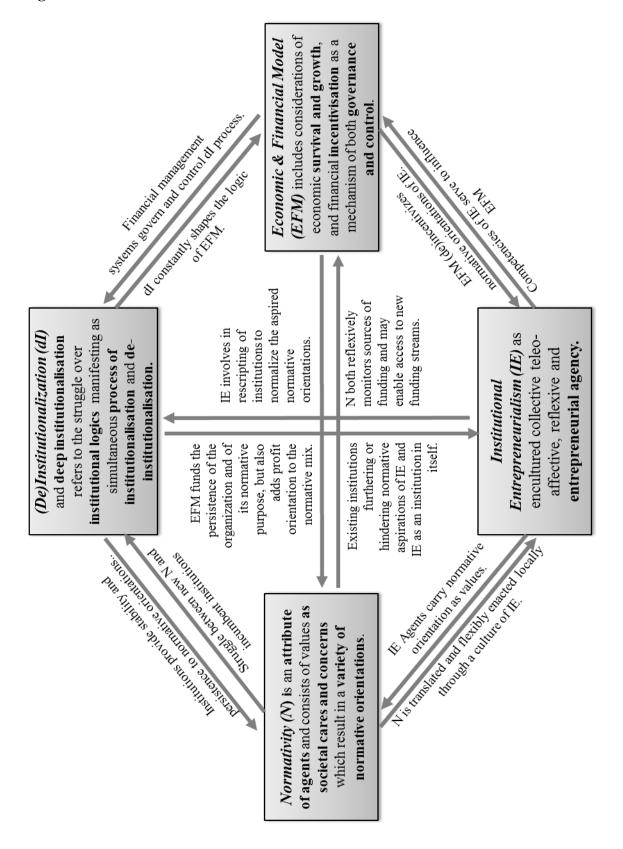
Financial considerations are clearly and consistently included as a central feature of the business model literature, representing two of the nine building blocks of the Osterwalder Canvas (Osterwalder & Pigneur, 2010; Osterwalder, 2004) and in the shortlist of critical features highlighted by authors applying the canvas to sustainability concerns (e.g. Boons & Lüdeke-Freund 2013). However, although this is the least developed theoretical dimension of the NBM, we consider it here quite differently from how it is approached in the business model literature. By continuing our focus on the interaction between this dimension, and the cornerstones of the NBM being: normativity, (de)institutionalization; and institutional entrepreneurialism, we take in turn the significance of the economic and financial model and governance dimension into the other three cornerstones of the NBM, and in turn highlight how economic survival and growth, and financial incentivisation as a mechanism of both governance and control, play a critical how become embedded into practice, how in norms processes (de)institutionalization progress, and why the label 'entrepreneur' in terms of capability to raise and manage the economic and financial side of the organization are significant. In summary, we are concerned to highlight how economic and financial governance instruments, designed and deployed by the organization, critically contribute to the embedding of values into the fabric of the material/practice, and symbolic and ideological dimensions of the organization. In this sense we connect with the conceptualisation of the business model as an instrument or device operating as more than a communicative tool; indeed operating as a boundary object serving to translate the symbolic, material and normative identity and characteristics of the organization in economic and financial terms. For example in terms of the weightings and metrics laid out in redistributions to support and incentivise different commercial and societal priorities, across a range of intra- and inter-organizational networks across different functional boundaries and epistemic communities (Doganova & Eyquem-Renault, 2009). However this transmission cannot be taken as given and must be empirically researched since the effectiveness of such processes links to the condition that the multiplicity and mix of governance and economic instruments- technical devices (Callon, Millo, & Muniesa, 2007; MacKenzie, Muniesa, & Siu, 2007) that an organization deploys, such as business plans, corporate social responsibility and sustainability reports, codes of conduct and ethics; sufficiently align, reflect or re-inforce the normative orientation of the organization so as to bring about agencement being a compound term combining the alignments of actor(s) device(s) and normative orientations to represent a set of coherent and shared qualities, that are further

amplified and stabilised through processes of recursive qualification (Callon, Millo, & Muniesa, 2007; MacKenzie, Muniesa, & Siu, 2007).

A critical feature of the NBM therefore highlights that the economic and financial dimension not only interacts with, but enables or constrains the progressive development of each of the other cornerstones. In terms of the progressing and deepening the normative orientation of the organization, financial incentives are an effective mechanism through which to encourage and embed, to the point of normalisation, some forms of behavior and practice and disincentivise others. From the point of view of (de)institutionalization, financial management systems are a crucial (and under-theorised) element of institutionalization/de-institutionalization process having significant power in terms of governance and control. And economic and financial risk-taking, alongside, the instituting of prudent financial monitoring and governance processes, are intimately entwined with the competences that characterize and demarcate institutional entrepreneurialism, as the ASU case aptly illustrates.

Below, at Figure 1, we offer a diagrammatic representation of the Normative Business Model (NBM) depicting the four cornerstones of normativity, (de)institutionalization, institutional entrepreneurialism; and economic and financial model.

Figure P1. 1 The Normative Business Model



#### **Empirical Illustration of the NBM: The Case of Arizona State University (ASU)**

Space constraints prevent more than a cursory overview of Arizona State University as an empirical illustration of the NBM drawing upon fieldwork which comprised a three-week study visit to ASU by one of the authors in October 2013, incorporating a program of 14 in-depth interviews with the ASU President Michael Crow, the senior management team, cascading vertically downwards to inter-disciplinary research centres and institutes, principal investigators and a team of doctoral and post-doctoral researchers in the field of solar engineering; as well as vertically across the organization in fields of bio-design and nanotechnology. Greater detail on the methodology is provided in Randles (2015). The field study inductively informed the development of the NBM, supporting the deductive theory-building derived from the organizational institutionalism literature. This continual conversation between inductive and deductive method is inspired by the philosophy of grounded theory (Glaser & Strauss, 2012 [1967]; Schröder, 2013; Urquhart, 2013).

The 'before and after' (2002-2012) account of institutional transformation at ASU is still evolving into 2015 and beyond. The primary shift in normative orientation is from the traditional organization of academic endeavour which is overtly competitive between disciplines and which values knowledge progression oriented by intra-disciplinary debates, recursively supported and reinforced by bounded epistemic communities of practice featuring individual star academics, rather removed from external non-academic stakeholders or contemporary societal problems. The transformation was to a societal problem/solution approach to knowledge development involving cross-disciplinary teams out-facing to engage a range of societal stakeholders in the definition, execution, and reflection on the implications and application of research outputs motivated by the desire to achieve societal relevance and impact, this being the re-definition of the values and features of a transformed understanding of research excellence. The transformation was supported by organizational re-design (which was painful in some quarters, involving the closure of a number of discipline focused departments) and the financial incentivisation of initiatives bringing together multi-disciplinary teams organised through projects, centres, and institutes. The model was financially underpinned by an inclusiveness policy on student recruitment which saw income from student fees, supplemented by federal government grants, rise to \$757m in 2012 (increasing year by year and from \$639m in 2011) and providing the major source of cross-subsidy to top-flight inter-disciplinary societal-problem focused research. The number of graduating students grew from fewer

than 9,000 students in 2002 to 20,000 in 2014, accompanied by a quadrupling research grants from \$100m pa in 2002 to \$420m in 2014.

Table 1 provides a summary <sup>8</sup> of the ASU case interpreted through the four cornerstones of the NBM and its sub-components taken from the theoretical framework of Section 2 above.

Table P1. 1 The ASU Case Interpreted through the Four Cornerstones of the NBM

The four NBM Cornerstones	Illustrative evidence from the ASU case		
1. Normativity	<ul> <li>Normative principles of</li> <li>Not being a clonal replicant of the exclusive Ivy League Universities whilst simultaneously growing all relevant metrics: student numbers and research income.</li> <li>Excellence - research which addresses a wide range of societal problems and challenges.</li> <li>Access- student population reflects the State demographic</li> <li>Impact – positive impact on communities, places, and societal issues. Positive contribution to sustainable communities, natural environments and economic development.</li> </ul>		
2. (De)Institutionalizatio n and deep institutionalization	<ul> <li>Organizational transformation has taken 12 years and still progresses.</li> <li>69 academic units, schools and departments have been disbanded.</li> <li>25 new cross-disciplinary units and societal-problem facing centres have been created.</li> <li>New appointments at Senior and middle (PI) level share normative commitments and values.</li> <li>Organizational re-design facilitates academics holding multiple affiliations within the organization: discipline-based school for teaching, applied specialism for research, societal challenge for normative community (for example <i>Christiana Honsberg</i> combines three affiliations: School of Electrical Engineering, Centre for Quantum Energy and Sustainable Solar Energies, QESST, and Global Institute of Sustainability)</li> <li>From new experimental innovative model of university, the self-styled 'New American University' like-minded and politically supportive actors and organizations were enrolled, building legitimacy.</li> <li>Current rhetorical aspiration is to replace the dominant 'replicant' model' (Parr, 2014)</li> </ul>		
3. Institutional entrepreneurialism	<ul> <li>Iconic leadership of President Michael Crow: 'We consider our effort a case-study in institutional innovation' (Crow, 2011)</li> <li>Senior Management team share normative commitment to societal welfare and the implementation of organizational reform to achieve it.</li> </ul>		

<sup>&</sup>lt;sup>8</sup> A fuller account of the ASU case interpreted through the NBM lens will be available as Randles and Laasch (2015) 'Managing Publicness in the 'Good University': What Does it Entail and How Does One Accomplish it?' paper to the Institutional Design Frontiers Summit: Futures of Higher Education, Organised by CORD - ASU, Scottsdale, Arizona USA, April 9-10 2015

	• E	ncouragement of critical reflexivity throughout the rganization, including students.  ncouragement and reward to entrepreneurial responses and elf-direction throughout the organization, including students
4. Economic and financial governance	ca re	se of Federal grants for under-represented student groups, as ash-cow to cross-subsidise and pump-prime growth of esearch income.
	• Ir	nternal 'calls' issued and controlled by the University central dministration to incentivise self-organization of cross-isciplinary teams addressing societal challenges with

to formal research centres.

mechanisms to progress from experimental research initiative

#### Theoretical Contribution and Directions for Further Research

The main contribution of this paper is to offer the foundations of a descriptive and diagnostic theoretical model: the Normative Business Model (NBM). Its central aim is to seek to descriptively represent the integrated elements of a de-facto, institutionalised, social reality of organizations. It is first and foremost a theory of organizational transformation, understood as a long, hard, and often painful process of creativedestruction, translated in institutionalist terms to the simultaneous process institutionalization/deinstitutionalization (de)institutionalization deep institutionalization. The model comprises four cornerstones, which incorporate many of the advances of the literature on organizational institutionalism and institutional sociology, such as the significant role of vested interests, power, and agency. It incorporates the under-examined significance of normativity and normative orientations in holding existing institutions in place as stable forces, but also as the incorporation of (new) values embedded into practices and symbolic meaning and identity as part of the (de)institutionalization process. It incorporates the perplexing paradox of agency in institutionalist thinking; that is how can agents change the stable and powerful institutions in which they themselves are embedded? It gives voice to the notion of critical, reflexive, collective institutional entrepreneurialism as a mechanism for change, and posits a connection between institutional entrepreneurialism and the normative orientation of the NBM as being a broadly circumscribed (and internally differentiated) set of *societal* cares and concerns, opposing individualistic or private concerns. It also highlights the importance of raising and managing financial considerations to the economic survival and reproduction of any form of organization, as well as the use of financial instruments as governance and incentive mechanisms, within (de)institutionalization processes. The NBM therefore comprises four cornerstones which are systemically interactive and recursive being i) normativity ii) (de)institutionalization processes and deep institutionalization iii) institutional entrepreneurialism and iv) economic and financial governance.

The proposition of the NBM as ambitiously revisionist, invites comparison with the existing business model literature, and in particular the similar concept of the Sustainability Business Model, SBM (Stubbs & Cocklin, 2008). In fact much of what the NBM is proposed as being can be defined through its opposition to what the prevailing mainstream business model literature is not. The dominant thrust of the business model literature appears to be to generate prescriptive management tools and templates, entreating managers and practitioners to adopt them. They are models for rather than models of organizations. Even the sub-set of business model literature which is motivated by normative orientation which we share (ethical, responsible, sustainable, or humanist) tends to be 'additive', incrementally adding/subtracting critical traits to/from the original standard, or generating a new critical traits lists, whether from empirical cases to create Weberian ideal-types (Stubbs & Cocklin, 2008) or revising the nine building blocks of the Osterwalder Business Model Canvas standard model (Boons & Lüdeke-Freund, 2013). None of these approaches share our start point to understand how *de-facto* institutional transformation proceeds as a social phenomenon. None attempt to theorise the existence or influence of pre-given normative orientations, or ask how they influence practice, or how they may, or may not, become overturned by institutional entrepreneurialism. None take the theorisation of power in constraining or enabling institutional transformation seriously, and so as a general observation they take insufficient account of the power of existing institutional arrangements, incentivised to protect the current status quo. The business model literature *sui-generis* is in *theoretical* terms a-historical and ignores spatial-temporal contingency. As much as we share the spirit and noble normative aim of Stubbs and Cocklin (2008) and others in this sub-set of the literature, arguably many of the above features apply. The SBM is a model premised on critical characteristics (ibid. Figure 1: p. 114) rather than understanding change processes, and although the need for transformation of the profit-maximising dominant model of the firm of neo-classical theory is noted, and the ecological modernisation theory to which the model turns calls for the transformation and reform of core practices and central institutions exactly how this process will proceed or be achieved is lost in both the theorisation and in the methodology to generate ideal-type characteristics of the SBM.

In this sense the NBM is broader in scope than the SBM in two respects. First, the normative cares and concerns of the NBM include sustainability, but go beyond, to address a much broader scope and variety of societal problems. Second, the NBM is 'blind' to the type of organization included in its scope, preferring to cluster and differentiate analyze through other criteria such as normative orientation (differentiating clusters or 'niches' of organizations sharing like-minded or synergetic normative orientations rather than classifying by organization type).

Finally, we offer some direction for a future research agenda developing the NBM. On the face of it, the breadth of the scope of the concept presents a 'needle in haystack' problem. And yet the theoretical account and four cornerstones proposed above have the opposite effect, providing a heuristic device for tightening and selecting contenders for the further research and refinement of the NBM concept. For example we are particularly concerned to better understand and to evidence deep institutional transformation and to differentiate it as an ideal-type model of organizational and institutional change and innovation towards normative goals involving a plethora of societal cares and concerns and social mission-oriented objectives; from cases where 'shallow' institutionalization and management fashion fetishism indeed responsibility-wash pertains, or where the uncritical layering of new responsibilities onto prior institutional logics, structures and governance mechanisms without addressing (de)institutionalization and deeper institutional re-design processes risks responsibility-overload (Randles, Dorbeck-Jung, Lindner, & Rip, 2014; Randles, Gee, & Edler, 2015; Randles, 2015). Indeed, a significant empirical question arises here as to whether institutional entrepreneurialism with its focus on local translation of a broad normative framework set by the organizations' leadership team, can offer a governance mode for managing publicness as a viable alternative to the currently dominant and much maligned New Public Management (NPM) (Bozeman, 2007; Randles, 2015).

An important first step in developing a research agenda on the NBM would be to bring the institutionalist perspectives on which the NBM is founded, into conversation with peers who have alighted similarly upon the significance (and to-date under-researched) analysis of the normative dimension in management and innovation. Thus a complementary perspective is the sub-set of the business model literature which posits that normative commitment plays a role in stabilising and co-ordinating *inter*-organizational forms, for example value networks (Breuer & Lüdeke-Freund, 2014). A similar conversation might foreground the insertion of agency into business model scholarship,

albeit from a different philosophical tradition such as pragmatism which like the NBM takes an optimistic position premised on the assumption that actors strive to solve societal problems for a 'better world' through localised experimentation (Baker and Schaltegger 2015: 226). Repertoires of governance innovations play a role in the sense-making and self-monitoring of assumed values-motivated actors through financial governance technologies such as Social and Environmental Accountability (SER) (Baker & Schaltegger, 2015). Evaluating the design and effectiveness of such governance instruments in steering institutional change towards normative objectives provides another complementary research direction. Finally further research on the institutional entrepreneurialism cornerstone of the NBM, raises questions about how to build the capacities to facilitate translational, reflexive and critical capabilities in mid-level leaders and mentors of organizations, empowering them to translate broad normative frameworks into localised responses including developing boundary-crossing, resource mobilisation, and up-scaling capabilities. Such an agenda has both a research and a training dimension linked to the new pedagogic field developing competencies for responsible management, integrating the previous separate fields of sustainability, responsibility and ethics (Laasch & Conaway, 2015; Rasche & Gilbert, 2015); applied in a range of organization contexts such as the development of the mid-ranking policy official able to turn policy ambiguity to advantage through policy entrepreneurship (Edler & James, 2015) and supporting the new academic team-leader, the ambidextrous principal investigator in University settings (Randles 2015, Kokkeler 2014). Developing the NBM in terms of further research combines the need for greater theoretical elaboration and refinement; empirical demonstration across multiple organizational forms; and in parallel, training, learning and curriculum development, together offering a rich and inclusive forward agenda.

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### Appendix

### Co-Authorship Statement Sally Randles

### **Co-author Statement**

I hereby declare that I am aware that the work in the	paper entitle	ed:
'Theorising the normative business model'		
of which I am a co-author, will form part of the job a	pplication b	y:
Oliver Laasch		
who made a		
major  x proportional  minor  contribution to the work in the research phase		
and who made a		
□ major X proportional □ minor		
contribution to the work in the writing phase.		
	Signature:	Sany Randhes/
	Name:	Sally Randles
	Date:	02/10/2015

# PAPER 2. BLENDING COMMERCIAL AND SUSTAINABILITY BUSINESS MODELS: HOW INSTITUTIONAL LOGICS INFLUENCE VALUE LOGICS

#### Oliver Laasch

#### University of Manchester

#### Abstract:

Business models bring together value proposition, creation, exchange and capture as one value logic. It is dominantly understood as a commercial logic. However, there are also alternative business model logics, for instance, sustainability business models. The conceptual proposition of this paper is that such distinct organizational value logics are influenced by institutional logics. Commercial business models have been influenced by the institutional logic of the market, sustainability business models by the institutional logic of sustainable development. These ideal-type value logics are blended in actual organizations. In order to understand the blending of business model logics, it is crucial to understand their characteristics, their common ground and the tensions between them. This paper studies these aspects of commercial and sustainability business model logics through a comparative structured review of the 50-most-cited sources in each literature. Distinct organizational value logics are found between literatures. These logics are connected through a shared meta business model, but also show manifold tensions. These findings contribute to discussions in business model research and in corporate sustainability and open up new avenues for research.

## Keywords

blending logics, business model functions, organizational value logics, institutional logics, corporate sustainability, sustainable development

#### Introduction

Is the logic of business models an entirely commercial one? Is it the logic of making profit, to compete and succeed in the market? The dominant business model literature is focused on such commercial logic. In the context of sustainable business and corporate sustainability is likely to be untrue. Commercial logics are increasingly blended with the logic of sustainability. How do logics blend?

The business model concept as we know it today was shaped strongly through its application in the dotcom era. It was powered by the need to create models to commercialize the opportunities emerging from the e-business boom (Ghaziani & Ventresca, 2005; Nielsen & Lund, 2014; Osterwalder, et al., 2005). When the boom subsided, the business model had become a strong-enough concept and application to be relevant in a larger commercial context (Magretta, 2002). It moved into applications of commercialization of technology and innovation (Chesbrough & Rosenbloom, 2002; Teece, 2010); entrepreneurial ventures (Morris, et al., 2005; Zott & Amit, 2007); and corporate strategy (Casadesus-Masanell & Ricart, 2010; Mitchell & Coles, 2003; Zott & Amit, 2008). The business model and its concepts have been development in these commercially-oriented academic and practitioner communities. This origin has forged a mainly commercial logic, influenced by the consumer-driven commercial market.

However, in the last half decade several alternative, non-commercial business model logics have emerged. Business models, according to these alternative discussions, may deviate from the commercial logic. They may be influenced by the logic of a particular faith such as in Islamic banking (Beck, et al., 2013; Fry, et al., 2010); by the social welfare logic such as social enterprises (Darby & Jenkins, 2006; Seelos & Mair, 2005; Yunus, et al., 2010); the family logic in the case of family businesses (Adendorff, 2004; Chirico, 2007; Rau, 2013); the logic of the state reflected in public sector business models (Glover, 1998; Osborne, et al., 2014; Yu & Janssen, 2010); and the logic of humanism in humanistic business models (Fry, et al., 2010; Laasch, et al., 2015).

The conceptual proposition of this paper is that such distinct organizational value logics, 'business' model logics, are influenced by distinct institutional logics. All of the alternative business models described above respond to institutional logics like the ones of faith, social welfare, family, the state and humanism. This paper is compares two particular organizational value logics. On the one hand, the commercial business model has been

influenced by the institutional logic of the commercial market. On the other hand, the sustainability business model has been influenced by the institutional logic of sustainable development. These two 'ideal-type' value logics are blended to form actual organizations' business model logics. Understanding these ideal-type logics' characteristics and how they blend appears of high relevance for a more holistic business model scholarship and for practitioners involved in blending. This paper studies the characteristics and relationship of the value logics of commercial and sustainability business models. It is based on a comparative structured review of the 50-most-cited sources in each literature.

The paper will first provide a basic conceptual framework that constructs a conceptual bridge between institutional logics and business model logics. The framework will show how institutional logics shape ideal-type value logics. It will also show how ideal-type logics are blended to form actual business models' value logics. These blended logics bring together characteristics from the commercial and sustainability business model logic. Secondly, a structured literature review will be conducted. It will compare the characteristics of commercial and sustainability business model logics. This review will be used to illustrate commonalities and tensions between both logics as a basis for understanding their blending.

## **Institutional Logics Influencing Organizational Value Logics**

Business models are often described as a 'logic', the underlying narrative of doing business that defines the essence of what the business is and does (Abdelkafi & Täuscher, 2016; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; George & Bock, 2011; Johnson, et al., 2008; Teece, 2010; Zott, et al., 2011). These logics are models, 'representations located in the minds of managers or academics' (Demil & Lecocq, 2015, p. 17). They are mental models of an existing or envisioned business reality. They exist in the cognitive realm as 'a set of cognitive configurations that can be manipulable in the minds' (Baden-Fuller & Mangematin, 2013, p. 418). Business models, according to this stream of research, are part of cognition (Tikkanen, et al., 2005). However, these logics do not only exist 'in the mind'. They are enacted (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009; Zott, et al., 2011; Zott & Amit, 2010), and inscribed into business model devices like products and business plans (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009).

From a commercial angle, this implies that the business model primarily is 'the money earning logic of a firm' (Osterwalder, 2004, p. 47). However, the more business models are applied on not purely commercial organizations, the less the idea of the 'money earning logic' captures what business models are and can be. As Linder and Cantrell (2001, p. 1) posit, the business model is an 'organization's core logic for (...) value'. In this paper the term 'organizational value logic' will be used. This implies that that there are many other organizational value logics distinct from the one of commercial businesses. For instance, in the context of sustainability oriented business, 'a business model can be interpreted as the blueprint of an organization's business logic' (Lüdeke-Freund, 2009, p. 3). This blueprint may be significantly distinct from a stereotypical commercial company. It will be oriented strongly towards sustainable development. Accordingly, there is a need to broaden the narrow commercial value logic perspective. A necessary discussion to be had is on wider organizational value logics, not only the ones of commercial businesses.

Distinct value logics differ in the characteristics of their value proposition, creation, exchange and capture. These functions may show very distinct characteristics, depending on the institutional logics influencing them. The following sections work toward a simple conceptual framework. It will explain how institutional logics may influence business models' value logics. Sustainable development will be introduced as an institutional logic influencing organizational value logics.

#### Organizational Value Logics and Functions

Business models as organizational value logics are not an exclusive feature of commercial businesses. Any organization has an implicit logic of the kind of value they propose to whom; what is necessary to create this value; how they exchange it; and how they capture a portion of that value. The four functions of value proposition, creation, exchange and capture (PCEC) have been covered extensively in the business model literature. These functions have developed from the early business model publications on. A prominent example is Osterwalder's (2004) 'business model ontology'. In the ontology, the business model was originally divided into four functions: Product (P), infrastructure management (C), customer interface (E) and financial aspects (C) (Gordijn, et al., 2005; Osterwalder & Pigneur, 2002; Osterwalder, 2004). Chesbrough and Rosenbloom (2002) provide a similar functional structure of value proposition (P), value chain structure (C), market segment (E) and cost and profit structure (C). More recent publications, however, seem to have arrived at calling these four functions value proposition (P), creation (C), delivery (E) and capture

(C) (Osterwalder & Pigneur, 2010; Teece, 2010). Such functions, particularly value creation and capture are used across most of the major business model publications as discussed by Zott and colleagues (2011).

As shown above, the functions of proposition, creation, exchange and capture are widely recognized. However, there are also variations. For instance, several publications merge value creation and exchange into the idea of value architecture (Fielt, 2014; Timmers, 1998). Similarly, in this paper, what is typically known as value delivery is conceptualized as value exchange. Through the analysis, exchange was identified as a framing more suitable for the context of alternative business models. This point will be outlined further in the findings section.

The characteristics of these four value functions may be different in distinct business models. These varied characteristics of the functions and how they come together determines an organization's value logic. Imagine the organizational value logic of a company like Apple. With a customer value proposition of high quality and high-end design, it depends on a highest standard production processes (value creation) and on the ability to maintain high margins (value capture). The organizational value logic is determined strongly by such interplay between the value functions of an organization. The organizational value logic interlinks value proposition, creation, exchange and capture, and creates an inter-functional value logic (Casadesus-Masanell & Zhu, 2013; Fielt, 2014). This coming together as the organizational value logic, determined by these value functions, has been described as a 'coherent narrative' (George & Bock, 2011; Lund, 2013; Magretta, 2002).<sup>1</sup>

In the comparative structured review of this paper, the business model functions are the main units of analysis. The thematic analysis of the literature will show how value proposition, creation, exchange and capture of the commercial and the sustainability business models vary considerably. The coming together of value functions explains well, the value logic of a particular organization through the mutual dependence and entanglement of these functions (e.g. in the Apple example). However, it cannot explain entirely how entire groups of organizations, such as sustainability-oriented businesses, come to exhibit distinct organizational value logics.

<sup>&</sup>lt;sup>1</sup> Attempts have been made to represent these value functions together quantitatively, by algebraic functions that describe the organizational value logic (Zhang, et al., 2015). The value logic becomes a mathematical function consisting of the elements of proposition, creation, exchange and capture.

For instance, in sustainability-oriented businesses exchange may be centred on ensuring circular flows of resources; on closing the loop (Bocken, et al., 2014; Stubbs & Cocklin, 2008). In a commercial business, however, exchange is typically centred on the exchange of products and services for money (Teece, 2010). Another example is how the logic of the commercial business model dictates the capture of profit for investors and owners (Chesbrough & Rosenbloom, 2002; Shafer, et al., 2005). Value capture in a sustainability business, however, is understood as the social, environmental and economic triple bottom line (Birkin, et al., 2009a; Bocken, et al., 2014). In this section we will delve deeper into how and why organizational value logics may differ greatly between groups of organizations, particularly sustainability-oriented businesses and commercially-driven businesses. We will then move on to theorize how such ideal-type businesses may be blended in actual organizations.

# Institutional Logics: Ideal-Types and Blends

This paper suggests the influence of differing institutional logics as a conceptual lens for exploring distinct organizational value logics. The institutional logics concept explains how larger institutional logics, such as the ones of religion, family, the state or the commercial market influence individuals, groups and organizations (Alford & Friedland, 1985; Friedland & Alford, 1991; Thornton, 2004; Thornton & Ocasio, 1999; Thornton & Ocasio, 2008). Such institutional logics manifest on multiple levels of society, one of them being the organizational level influencing organizational form and behavior (Thornton & Ocasio, 1999; Thornton & Ocasio, 2008). Thornton and Ocasio (1999) define institutional logics as follows:

'Socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.' (p. 804)

Their definition stresses how institutional logics manifest in what people and organizations are and do. Organizations create legitimacy by responding to the prescriptions of institutional logics (Deephouse & Suchman, 2008; Greenwood, et al., 2008). Organizations that perfectly conform to just *one* institutional logic would explain stereotypical '*ideal-type*' groups of organizations and their distinct organizational value logics. <sup>2</sup> However, such

<sup>&</sup>lt;sup>2</sup> These groups of organizations may be explored further through the concept of institutional fields (Furnari, 2014; Hardy & Maguire, 2010).

ideal types<sup>3</sup> in actual organizations are rare. Distinct institutional logics typically co-exist, creating tensions and institutional complexity (Greenwood, et al., 2011; Kodeih & Greenwood, 2014). Organizations simultaneously respond to prescriptions from these distinct institutional logics. They 'navigate' the tensions between them (Jay, 2013; Mair, et al., 2015; Pache & Santos, 2013).

A first example of such multiple institutional logics in business is provided by Westermann-Behaylo and colleagues (2013). They show how market-based institutional logics compete with alternative institutional logics in the context of corporate social responsibility. Distinct logics influence if organizations treat employees either as a means to an end or as an end in itself. Pache and Santos (2013) provide a second example. They propose that organizations may couple elements of distinct institutional logics in the same organization. This leads to hybrid structures between, for instance, a social welfare logic and the commercial logic. A third example is provided by Randles and Laasch (2015, Paper 1 this thesis). They theorize how institutional logics may be translated into normative orientations of business models. They stress the role of 'competing institutional logics, such as sustainability and commercial maximisation logics' (p. 57).

The three examples highlight two main points. First, we see how organizations are influenced by multiple institutional logics. The organizations' value logics are partly anchored in institutional logics beyond the individual organization's characteristics and beyond their immediate context. Secondly, we see how the institutional logic of the market is not the only logic influencing company characteristics and behavior. These organizations do not have 'ideal-type' organizational value logics influenced only by the market. They have a 'blended' institutional logic with characteristics influenced by commercial and alternative institutional logics. Different institutional logics influence distinct characteristics of value proposition, creation, exchange and capture functions. This leads to organizations that are influenced by one or several institutional logics to varying degrees. The value logics of actual organizations are different blends of distinct institutional logics.

Such blends are most relevant in the context of corporate sustainability and sustainable business. In this context commercial businesses add elements related to

<sup>&</sup>lt;sup>3</sup> The notion of *ideal-type* is common both in the institutional logics and business model literatures. Baden-Fuller and Morgan's (2010, p. 166) use of the term to refer to successfully '*tried and tested*' business models that others could imitate as '*ideal-type business models*'. Thornton and Occasio's (1999, p. 808) describe '*ideal types*' of institutional logics and of their influence. An ideal-type institutional logic could well shape an ideal-type business model.

sustainable development. They blend the institutional logic of the market with the one of sustainable development. This paper is a comparison between ideal-type commercial and sustainability business models logics. From juxtaposing them we will see how their logics interrelate; where they overlap and where they exist in tension. This in turn is relevant for understanding how the commercial and sustainability logics are blended in actual organizations. The ideal-type logics of the commercial business model will be contrasted with the one of the literature on sustainability business models.

In this section we have seen how institutional logics demand ideal-type organizational value logics. In actual organizations ideal-types are unlikely to occur. Organizations rather have blends of multiple logics that make their organizational value logic. In the next section we will focus on the institutional logic of sustainable development. Finally, the insights from organizational value logics, from institutional logics, and from the institutional logic of sustainable development will be brought together in one framework.

# The Institutional Logic of Sustainable Development

The institutional logic of the commercial market has been recognized as influencing organizations throughout the institutional logics literature. It has been present even in the seminal publications describing the concept (Friedland & Alford, 1991; Thornton, 2004; Thornton & Ocasio, 1999). Accordingly, it does not require much more justification or explanation. Sustainable development, however, is not one of the main institutional logics traditionally mentioned by these publications. Thornton and Ocasio (1999, p. 802) recognize that institutional logics are 'historically variant and are shaped by economic and social structural change'. They may also emerge from more narrowly bounded context such as the one of the publishing industry described by the authors. The publishing industry had given rise to the 'editorial logic'. Such logics have also been observed in other local contexts such as the one of public street markets (Kurland & Aleci, 2015) and among companies focusing on corporate social responsibility (Westermann-Behaylo, et al., 2013).

The institutional logic of sustainable development shows signs of both patterns of construction of a new institutional logic. On the one hand the economic and structural change related to 'unsustainable development' drove its construction. On the other hand, it was also constructed in the more narrowly-bounded context of businesses oriented towards sustainable development. Many publications have shown how sustainable development

necessitates a distinct organizational logic as its paradigms are different from the ones of conventional commercial business (Gladwin, et al., 1995; Schmidheiny, 1992; Stubbs & Cocklin, 2008). In parallel, economic and social changes have led to the emergence of sustainable development as an institutional logic. This new institutional logic of sustainable development is influenced strongly by the logics created by global sustainability initiatives. For instance, the Millennium Development Goals (Hayes & Rajão, 2011), the Global Compact (Rasche & Gilbert, 2012), the Global Reporting Initiative (Brown, et al., 2009) and legal requirements (Baker, 2003) have been found to co-construct an institutional logic of sustainable development. Also the increasingly taken-for-granted use of particular sustainability-oriented management tools such as life-cycle analysis or environmental management systems has contributed to the manifestation of a larger institutional logic of sustainable development that influences organizations (Heiskanen, 2002; Noren & Malmborg, 2004).

The constructed institutional logic provides prescriptions for organizational and individual behavior that reflects actors in its construction process. It prescribes behavior oriented towards sustainable development as constructed mainly through the United Nations initiatives mentioned above. This understanding is embodied in the definition of the World Commission on Environment and Development of sustainable development as 'development that meets the needs of the present without compromising the ability of future generations to meet their own needs' (Brundtland, 1987, p. 24). It also prescribes to contribute to particular goals such as the United Nations developed Sustainable Development Goals. The institutional logic of sustainable development also includes prescriptions that have emerged from the business sector. For instance, striving for 'eco-efficiency' is a taken-for-granted behavior in corporate sustainability which was promoted by the World Business Council for Sustainable Development. The institutional logic prescribes the use of a number of such common management instruments and frameworks. Examples include the triple bottom line, life-cycle assessment.

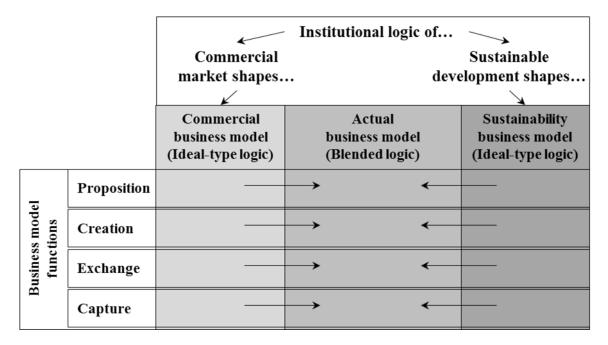
Framework: How Institutional Logics Influence Value Logics

In the previous section we have conceptualized business models as organizational value logics. These logics are composed of the characteristics of their value proposition, creation, exchange and capture functions. We have also seen how these functions may be influenced by distinct institutional logics. This may create '*ideal-type*' business model logics following one particular logic. More likely, however, are logics that are blended,

embodying prescriptions from multiple institutional logics. Finally, we have reviewed the institutional logic of sustainable development as the one most relevant in the context of sustainability business models. This conceptual storyline can be summarized in one framework. The framework explains how institutional logics influence organizational value logics. It is focused on the relationship between the value logics of commercial business models and sustainability business models.

Figure P2. 1 brings together main elements of the framework. It suggests that the institutional logics of the commercial market and of sustainable development prescribe ideal-type organizational value logics. However, actual businesses typically respond to several logics. Accordingly, they have to blend ideal-type characteristics. In the context of this paper, they blend commercial and sustainable development logics. This blending can be understood from a functional perspective. For instance, one may look at how commercial and sustainability come together in the value proposition or value capture functions. How close a particular business model's logic is to either ideal type, depends on the blend. As Baden-Fuller and Morgan (2010) suggest, 'ideal-type business models (...) provide recipes' and there are 'different combinations (ways to make and bake the cake)' (p. 167). Distinct business model logics may have distinct 'dominant logics' (Bettis & Prahalad, 1995; Chesbrough & Rosenbloom, 2002; Prahalad & Bettis, 1986). The dominant logic in commercial companies is the institutional logic of the market. However, it may be blended with other institutional logics, including sustainable development.

Figure P2. 1 How Institutional Logics Influence Actual Business Models' Value Logic



We will now describe the research questions and methods through which the value logics of sustainability and commercial business models will be explored. The goal of the exploration is to better understand what 'blending' the commercial and responsibility-sustainability business model logics implies. In order to do so, we need to first have a strong appreciation of the characteristics of each value logic. This will enable us to identify the common ground on which blending may happen and the tensions that are to be taken into consideration.

#### Method

To understand the blending of logics it is crucial to understand each logic's characteristics, their common ground and the tensions likely to rise between them. The following research questions are aimed at studying comparatively these commercial and sustainability business model logics:

**RQ1:** What characterizes the distinct value logics of commercial and sustainability business models?

**RQ2:** What are commonalities of commercial and sustainability business model logics?

**RQ 3:** What tensions exist between commercial and sustainability business model logics?

These questions are addressed through a comparative structured review of the commercial and sustainability business model literatures. The assumption behind this research strategy is that also business model research is influenced by the institutional logics of the market and of sustainable development. Also, a major share of business model research consists of empirical studies of actual business models. This is why the papers included in this review, also can be seen as a construction of the value logics of actual businesses. Unlike actual business models, the literature tends to explicitly distinguish between commercial and sustainability elements. Journal articles typically state in their titles and/or abstracts what is the dominant logic of the business models studied in it. This made the distinction between commercial and sustainability business models possible on which the comparative aspect of this literature review is built.

Comparative Structured Review Design

The structured literature review method is based on the use of literature sources to address a specific research question. It is one form of a 'systematic review' which gathers

'evidence that fits pre-specified eligibility criteria (...) explicit, systematic methods that are selected with a view to minimizing bias, thus providing more reliable findings' (Higgins & Green, 2011). Systematic reviews were originally used in medicine research to corroborate research findings across studies and to support medics' decision making and intervention. It has made its way into the business and management disciplines in a variety of forms (Tranfield, et al., 2003).

After early applications in the area of corporate social responsibility (Orlitzky, et al., 2003), structured reviews have recently been used to understand topics related to sustainable development and corporate sustainability. A number of studies have been conducted to assess the effectiveness and the impact of particular measures for furthering sustainable development (Hallström, et al., 2015; Kalimeris, et al., 2014; Karatzoglou, 2013). This use of the method resembles structured reviews studying the effectiveness of interventions in the medical sector. Another strong stream of research consists of reviews of emerging concepts in the corporate sustainability field (Carvalho, et al., 2014; Seuring & Müller, 2008), including the one of sustainability business models (Bocken, et al., 2014).

Tranfield and colleagues (2003) recommend a structured literature review process in the organization and management field. It builds up on the three stages, planning, conducting the review and its dissemination. The first stage of 'planning the review' has already been described above and the third part of 'reporting and dissemination' is not subject of this paper. Therefore, the second stage of 'conducting the review' will be focused on now, by making reference to Table P2. 1. The table is a description of the design of the comparative structured review of the commercial and sustainability business model literatures used to address the research questions.

**Table P2. 1 Comparative Structured Review Design** 

Literature	Commercial business models (CBM)	Sustainability business models (SBM)					
I. Rationale for	I. Rationale for review						
Research questions	RQ1: What characterizes the CBM and SBM organizational value logics? RQ2: What do CBM and SBM logics have in common? RQ 3: What tensions exist between CBM and SBM logics?						
Choice of method	Comparative structured review of CBM and SBM literatures as fitting method for analyzing the organizational value logics present in literature. Academic literature is understood to be influenced by the same institutional logics as business model practice. Also, it partly represents actual business models through included empirical studies.						
II. Conducting	review						
Identification of research	One hundred business model literature sources (78 journal articles and 22 others, including books, chapters, theses, working and conference papers) (see Table P2. 5)						
Selection rationale	Most-cited sources on Google Scholar (as of 3 <sup>rd</sup> of February 2016) as representative sample of the main discussion in each literature						
Inclusion and quality assessment	Inclusion of top-50-cited CBM sources, identified through a search on Google Scholar for 'business model' in publication titles.	Inclusion of top-50-cited SBM sources identified through a search on Google Scholar for 'business model' and 'sustain*' in publication titles.					
	From the first 50 hits, sources were excluded that were based on non-commercial logics (4 excluded) such as the ones on social business, faith-based business, and private-public partnerships models. Additional exclusion of one article using 'business model' implicitly without making reference to the concept. Excluded sources were replaced by sources primarily focused on CBM. The replacements were sources with the nexthighest citation counts.	From the first 50 hits, sources were excluded that were commercial-logic sources 'in disguise' referring to 'economic sustainability' or 'financial sustainability' (14 excluded), unless they had additional elements referring to social and/or environmental factors. Excluded articles were replaced by others primarily focused on SBM. The replacements were sources with the next-highest citation counts.					
Data extraction and coding	, ,						
Analysis, synthesis, theorizing	The thematic analysis involved clustering of organizational value logic elements (Fereday & Muir-Cochrane, 2006), using an adapted version of the 'Gioia Method' for increasing rigor through the presentation of data (Gioia, et al., 2012).						

This led to the emergence of the organizational value logics of CBM and SBM represented in Figure P2. 3 and Figure P2. 4.

## Conducting the Review

The 'identification of research' (Tranfield, et al., 2003) as the commercial and sustainability business model literatures was guided by the research question aimed at comparison between the commercial and sustainability value logics. Sources were identified through a search on Google Scholar. Google Scholar citation counts were preferred over those of Web of Science and other databases as Google Scholar includes a wider variety of sources, including books, theses and working papers. These represent a significant subsection of the relevant sources from both literatures. In order to represent the prevalent discussion in each commercial and sustainability business model literatures, the decision was made to only review the 50 most-cited sources in each literature.

The initial set of sources identified in each literature required refinement through the exclusion of articles that did not belong into the respective set. Five publications from the original set of fifty commercial business model sources were excluded. One was excluded as it had little connection to the business model concept (O'Reilly, 2005) and four as they were not part of the commercial business model discussion. They rather belonged to alternative business model discussions (Beck, et al., 2013; Seelos & Mair, 2005; Seelos & Mair, 2007; Yunus, et al., 2010). From the original set of sustainability business model sources, 14 were excluded. They made reference to financial or economic sustainability which was more related to the commercial logic than to the logic of sustainable development. Articles that combined financial sustainability with social and/or environmental sustainability contents, however, were included. Nine sources, for which several duplicated versions existed, were unified as just one source. This involved adding up the individual versions' citation counts.

As the total number of articles had shrunk through these measures, deleted sources were filled up with eligible ones. These sources were the ones with the next-highest citation counts. This way the overall number remained at 50 sources per field, 100 in total for both literatures. Such quality assessment is a constituting step of conducting a structured review (Tranfield, et al., 2003). Both sets of publications showed similar distributions of publications types. Most frequent were journal articles (78), followed by books (9), conference proceedings (5), working papers (3) and other sources such as book chapters and theses (5).

During a pilot coding round, the complete texts of 30 commercial business model sources were coded beginning to end. However, the resulting dataset was too extensive and not focused enough for further analysis. In the main coding round, therefore, entire sources were skim-read, but only their abstracts were coded. For few publications such as books, abstracts did not exist. In these cases other short descriptions were coded, for instance, the book outline. This method was used by Ghaziani and Ventresca (2005), whose study is a main method reference for this article.

The coding served the purpose of identifying relevant organizational value logic elements. These would represent the discussions' implicit organizational value logics. A line-by-line in vivo coding (Saldaña, 2012) resulted in overall 507 codes. The codes represented organizational value logic elements, such as 'How does it make money?' (C11), 'close the loop of the supply chain' (S10) or 'value for its stakeholders' (C18). This step was part of the data extraction and monitoring process of a structured review. It prepared the next step of the review, data synthesis (Tranfield, et al., 2003).

In the synthesis phase, the codes were first allocated deductively to one of the value proposition, creation, exchange, capture functions. Themes under these functions were developed by inductively clustering the codes. These steps reflect a thematic analysis (Fereday & Muir-Cochrane, 2006). The method was paired with Gioa and colleagues (2012) method for increasing the rigor of qualitative research. The result is the syntheses presented in Figure P2. 3 and Figure P2. 4. These figures are the centre-piece of the findings. They address the first research question directly. They also are the basis for addressing the second and third one.

#### Literature Structure

This section briefly compares the structures of the two literatures reviewed. Figure P2. 2 shows how the total numbers of publications and their citations are distributed over time. It does so for each, the commercial and the sustainability business model discussion. The first of the most-cited sources in both discussions were published in the early 2000s. First sustainability business model sources appeared a bit later (2003) than the ones of the commercial business model discussion (2001). From the early top-50 publications on, both literatures showed a fairly stable distribution of sources until each of them spiked.

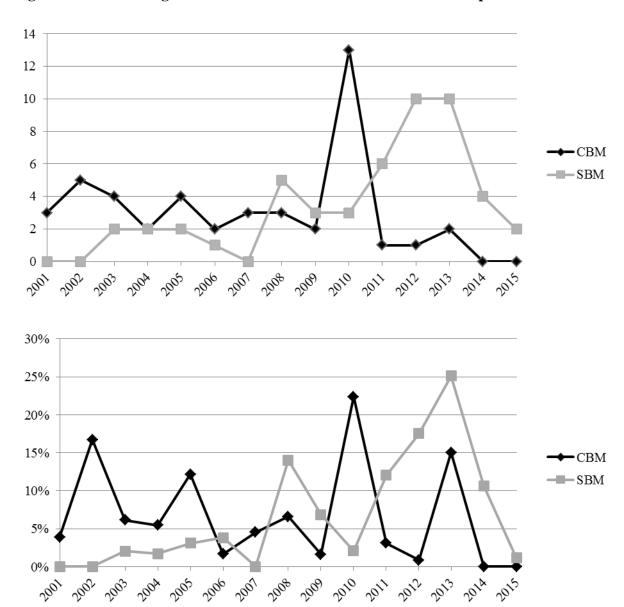


Figure P2. 2 Percentages of Total Citations and Total Article Count per Year

The 2010 spike in number of publications and citation count of the commercial business model literature relates to a special issue on business models in the journal Long Range Planning. It included all 13 top-50 commercial business model publications in that year. Also the 2013 spike in publications and citations of the sustainability business model literature included articles from a special issue, in this case in the Journal of Cleaner Production. However, there are two structural differences. First, out of the ten publications in 2013 only three were articles in this special issue. Secondly, this spike can be seen as part of a larger trend of a high number of top-cited sustainability business model sources also in 2011 and 2012.

The current state of each literature is summarized in Table P2. 2. The citations show that the commercial business model literature dominates in citations. The commercial business model top-50-cited articles accumulate 44105 cites, while the sustainability business model literature adds up to 2118 cites. The lowest-cited top-50 commercial business model paper (259 cites) is cited more than the highest-cited sustainability business model paper (213).<sup>4</sup>

Beyond these quantitative differences in citations there are also several qualitative differences between both discussions. A central difference lies in the main publication outlets. The top-50 commercial business model sources are mainly published in the journal Long Range Planning. They are also published in information and communication technology journals as well as in management practitioner journals such as Harvard Business Review and Sloan Management Review. The sustainability business model community mainly publishes in specialized corporate sustainability journals, such as the Journal of Cleaner Production or Organization and Environment. However, there is a topical connection between Business Strategy and the Environment as strong outlet of the sustainability business model community and the number one outlet of the commercial business model community, Long Range Planning. Both outlets are strategy journals. There are other very moderate overlaps in terms of the outlets used by the communities. The journals Business Horizons and Research Policy have published one respectively two articles from each community. The discussions are led by two distinct communities of authors. Not a single author has published in the top-50-cited publications of both communities.

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<sup>&</sup>lt;sup>4</sup> Citation counts mentioned here are taken from Google Scholar. However, the statement about the difference in citations between both literatures is consistent with the citation counts from Web of Science. In interpreting these citation counts, it is important to keep in mind that the sustainability business model literature is a less mature literature than the one of commercial business models.

**Table P2. 2 Comparison of Reviewed Literatures** 

	Commercial Business Model (CBM) literature			Sustainability Business Model (SBM) literature						
Citation	Accumulated	number of		Citation range		Accumulated number of		Citation range (Google Scholar)		
benchmarks	citations			(Google Scholar)		citations				
	Google	Web of Science		Highest	Lowest cited	Google	Web of		Highest	Lowest cited
	Scholar			cited		Scholar	Science		cited	
	44155	3887		3426	259	2118	300		213	9
Main authors	#1	#2	#3	#4	#5	#1	#2	#3	#4	#5
by number of	Chesbrough	Amit;	Pigneur (3)	Johnson;		Wells (5)	Lüdeke-	Boons;		
publications	(6)	Osterwalder; Zott		Linder;			Freund (3)	Birkin;		
-		(4)		Rappa; Tucci				Høgevold;		
				(2)				Jakl; Kolk;		
								Svensson;		
								Wagner (2)		
by number of	Chesbrough	Osterwalder (7243)	Pigneur	Tucci (3569)	Amit; Zott	Lüdeke-	Boons (345)	Cocklin;	Wagner, M.	Schaltegger;
citations (Scholar)	(7959)		(5677)		(3192)	Freund (416)		Stubbs (191)	(182)	Hansen (164)
Main journals	#1	#2	#3	#4	#5	#1	#2	#3	#4	#5
by number of	Long Range	Electronic				Business	Energy			
articles	Planning (11)	Markets;				Strategy and	Policy; IIMB			
		European Journal				the	Management			
		of Information				Environment;	Review;			
		Systems; Harvard				Journal of	Research			
		Business Review;				Cleaner	Policy (2)			
		Sloan				Production				
		Management				(4)				
		Review (2)								
by number of	Long Range	Harvard Business	Electronic	Industrial	Communi-	Journal of	Organization	Business	International	Research
citations (Google	Planning	Review (3829)	Markets	and	cations of	Cleaner	&	Strategy and	Journal of	Policy (136)
Scholar)	(7945)		(3202)	Corporate	the Associa-	Production	Environment	the	Innovation	
				Change	tion for	(530)	(191)	Environment	and	
				(2813)	Information			(169)	Sustainable	
					Systems				Development	
					(1748)				(164)	
Overlaps between	Authors in both list: None									
CBM and SBM	Journals in both list: Business Horizons (1 paper each from CBM and SBM); Research Policy (1 CBM, 2 SBM papers)									

In summary, it appears that the commercial and sustainability business model literatures are constructed by two distinct communities of scholars. This insight makes the influence of distinct institutional logics between these communities more likely than if there were strong overlaps. The next section will pursue the question about the distinct characteristics of organizational value logics as they are reflected in the commercial and sustainability business model discussions.

# **Findings**

This findings section is divided into three larger parts. The first part is aimed at addressing the first research question. It describes the characteristics of the commercial and sustainability business models' value logics as found in the literature. It makes explicit the organizational value logics that are implicitly contained in each literature. The distinct value logics are presented in the form of sub-themes of value proposition, creation, exchange and capture.

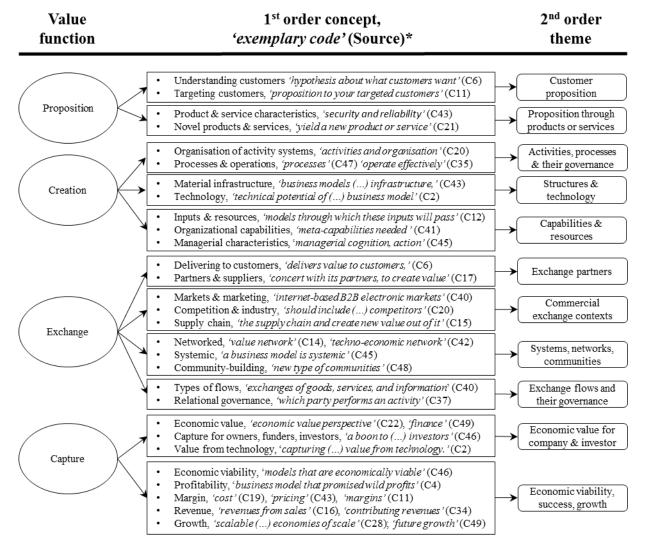
Both the second and third research question study how the logics of commercial and sustainability business models interrelate. The second findings section addresses research question two. It explores the common ground between both value logics by constructing a meta business model. It is based on the themes found when addressing the first research question. The third section is dedicated to research question three, which was aimed at studying tensions between both logics. Building up on the themes from the first findings section again, five salient tensions between both logics are identified.

Value Logics of Commercial and Sustainability Business Models [RQ1]

The first research question had asked: 'What characterizes the distinct value logics of commercial and sustainability business models?' The thematic analysis revealed very distinct characteristics of value proposition, creation, exchange and capture, between the literatures. First order concepts were extracted from the analyzed literature. Similar concepts together formed themes. These themes then provided insight into the distinct characteristics of the functional logic of each, value proposition, creation, exchange and capture for each discussion. Taken together, the distinct characteristics revealed how larger institutional logics were present in each discussion. The institutional logic of the market showed in the organizational logic of commercial business models. The sustainable development logic was visible in the organizational value logic of sustainability business models. The resulting distinct characteristic of organizational value logics are presented in

Figure P2. 3, for the commercial business model, and in Figure P2. 4, for the sustainability business model.

Figure P2. 3 The Commercial Business Model Value Logic



<sup>\*</sup>Source numbers in parentheses make reference to reviewed publications in Table P2. 5 in the appendix.

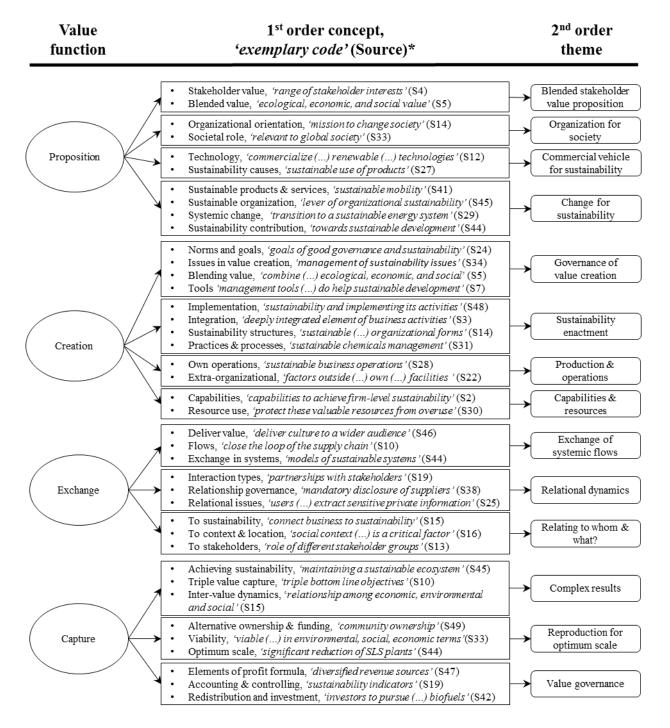
The commercial business model logic starts from a value *proposition* that is geared towards offering an attractive product or service on the market. Consequentially, also value *exchange* is much centred on delivery to customers in the marketplace as the main place of exchange. The commercial business model logic dictates that customers are the focal point of exchange. The value runs through a longer value chain towards the customer. All the flows of goods services and information in this network are directed towards the customer. The value network connects a company's value creation activities with the ones of other players in the network. The overall value *creation* depends on how activities are linked in processes; the structures in which this happens; and the capabilities that are key to value

creation. The ultimate goal is to make profit in order to *capture* as much economic value for company owners and investors as possible. The logic also requires to stay economically viable and to grow in order to ensure even greater economic gain in the future. These functional characteristics of the commercial business model come together in its organizational value logic:

The commercial business model value logic describes what kind of products or services to be proposed to the customer on which market (P); what the company needs to create the products and services as manifestations of the value proposition (C); how these are exchanged with the customers and the wider value creation network including suppliers and distributors (E); and how the company ensures economic viability, grows, and captures a profit for its owners and investors (C).

This commercial business model value logic is well known as it reflects the main business model discussion and the common institutional logic of the commercial market. How does it compare, however, to the alternative organizational value logic of the sustainability business model? As illustrated in Figure P2. 4 the sustainability business model discussion displays an organizational value logic very distinct from the one of the commercial business model. It shows strong alignment of its characteristics with the institutional logic of sustainable development, as outlined earlier.

Figure P2. 4 The Sustainability Business Model Value Logic



<sup>\*</sup>Source numbers in parentheses make reference to reviewed publications in Table P2. 5 of the appendix.

The nature of the value *proposition* is that it blends social, environmental and economic value. It is aimed at benefitting a diverse set of stakeholders. This wider understanding of value and of its recipients goes in line with the larger value proposition of an organization. It is understood to play an important role in society and to contribute to sustainable development. One type of contribution foregrounded in the sustainability business model

literature is organizations' potential as commercial vehicles for sustainability. This potential may be realized through the distribution of sustainability-oriented technologies or the promotion of sustainability-related cares. Both are central to the organizational value proposition in the sustainability business model discussion.

This focus on the contribution to sustainable development implies that value *creation* cannot be achieved through unsustainable activities. Accordingly, capabilities enabling organizations and their value chain to enact sustainability are a central theme. As a main source of negative environmental impact, the use of resources in the production process and in operations is foregrounded. Enacting sustainability in operations is understood to depend on the implementation and integration of sustainability into existing structures and processes. The governance of this value creation process is guided by norms of good governance and sustainability. This involves both to pay extraordinary attention to social and environmental issues in the value creation activities and to create *'blended value'* (*i.e.* social, environmental and economic value) by doing so.

Given the multi-stakeholder value proposition, value *exchange* in the organizational value logic of the sustainability business model is highly complex. It involves multi-stakeholder interactions in a system of relationships. This is also why the relational dynamics in the sustainability business model are central. Such relationships do not only include the ones to stakeholders, but also the larger ones to a company's location and context as well as to the ultimate care of sustainable development. The sustainability business model's value logic moves these relationships from being instruments that serve the commercial purpose, to an end in their own right.

Value *capture* in the sustainability business model's value logic involves a triple bottom line of social, environmental and economic value. It is to be captured not only in and for the company, but also in the larger organizational environment and for multiple stakeholders. This value capture has to be ongoing in order to continuously contribute to sustainable development. For this reason also economic reproduction mechanisms like funding and alternative ownership models are central themes in the sustainability business model discussion. The sustainability business model is meant to create value for multiple stakeholders and purposes. Accordingly, the distribution of the value captured towards stakeholders, towards cares and to the own organization for reproduction is foregrounded. However, reproduction in the sustainability business model does not necessarily have to lead to growth, but rather to optimum scale. In the sustainability business model logic, a

business that actively decides to de-grow in order to reduce environmental impact may be as legitimate as a business model geared towards rapid growth. Rapid growth may be legitimate, for instance, in order to widely distribute a more sustainable product, or to scale up a similar type of contribution to sustainable development.

The sustainability business model value logic describes the social, environmental and economic value proposition to multiple stakeholders as a contribution of an organization to sustainable development (P); what is needed to create this value in a sustainable way (C); the systemic exchange of value through relationships with multiple stakeholders (E); and how the value is captured and distributed as social, environmental and economic impacts over time, defining the optimum scale of an organization (C).

In this section we have seen how organizational value logics of the commercial and sustainability business model logics reflect the institutional logics of the commercial market and of sustainable development. These distinct institutional logics are present in the distinct characteristics of the value proposition, creation, exchange and capture functions. These functions together constitute distinct organizational value logics of commercial and sustainability business models. The relationship, including commonalities and tension-creating differences between both organizational value logics will be illustrated in the following sections.

## From Shared Themes to a Meta Business Model Logic [RQ2]

The second research question had asked 'What are commonalities of commercial and sustainability business model logics?' By comparing the commercial and sustainability business model concepts and themes featured in Figure P2. 3 and in Figure P2. 4 it becomes obvious that both logics share ample common ground. Table P2. 3 is a comparison of the themes derived from the structured literature reviews. It describes a meta business model. The meta business model consists of the characteristics of value proposition, creation, exchange and capture that are shared between both organizational value logics. It describes an organizational value logic shared between commercial and sustainability business models.

Table P2. 3 Meta Business Model Logic

Value	Commercial business	Meta business model	Sustainability business
function	model (Ideal-type)	(Blended)	model (Ideal-type)
Proposition	What kind of products and	What kind of value should	What contribution can
	services should be offered	be offered for the benefit	the organization offer to
	for which customers?	of whom or what?	sustainable
			development?
Themes	-Customer proposition	-Particular kind of value	-Blended stakeholder value
	-Proposition through	-Value proposed for targeted	proposition
	products or services	stakeholder(s) and/or cares	-Organizational purpose & role
			-Commercial vehicle for
			sustainability
			-Change for sustainability
Creation	What does the company	What structures,	What does the
	need (to do) to create the	activities, capabilities,	organization need (to
	products and services	and resources does the	do) to contribute to
	proposed?	organization need to	sustainable
		govern how, in order to	development?
		create the proposed value?	
Tl	Activities processes & their	-Structures and activities of	-Governance of value
Themes	-Activities, processes & their governance	value creation	creation
	-Structures & technology	-Capabilities and resources	-Sustainability enactment
	-Capabilities & resources	•	-Production & operations
			-Capabilities & resources
Exchange	How to organize	How to relate to others	How to relate with
	customer-centred	and participate in	multiple stakeholders
	commercial exchange?	systemic exchange?	for mutual exchange in
			the context of sustainable
			development?
Themes	-Exchange partners	-Dynamics of systemic	-Exchange of systemic
Themes	-Commercial exchange	exchange and relations	flows
	contexts	-Exchange with actors and	-Relational dynamics
	-Systems, networks,	stakeholders	-Relating to whom &
	communities		what?
	-Exchange flows and their governance		
Capture	What is the profit formula	What is the	What is the
	that ensures continuously	organization's impact	organization's social,
	increasing economic value	and its reproduction	environmental and
	capture for the company	mechanisms to achieve	economic impact/value,
	and its investors?	optimum scale?	how is it to be
			distributed and how
			much should be kept for
			economic reproduction
			to create optimum scale
TI	Francois1 f	Omagnizational	for sustainability?
Themes	-Economic value for company & investor	-Organizational outcomes and impacts	-Complex results -Reproduction for
	-Economic viability, success,	-Reproduction and scale	optimum scale
	growth	*	-Value governance

The value *proposition* under either one the commercial and sustainability business model logics explains what kind of value should be offered to whom and to the benefit of what. It embraces both the commercial business model's customer value proposition and the sustainability business model's value proposition for a wider set of stakeholders. It also reflects the sustainability business model's emphasis on blended, social, environmental and economic value and its aspired contribution to sustainable development. The value *creation* function has many shared elements between commercial and sustainability business models. Examples are the theme of capabilities as well as the operational and governance themes. The common ground shared between them is to describe what structures, activities, capabilities, and resources the organization needs to govern and how it needs to govern them, in order to create the proposed value. In the value *exchange*<sup>1</sup> function the commercial business model focus on exchange to bring products and services to customers can be juxtaposed with the sustainability business model's focus on the relationship to partners in value exchange. They can be brought together by focusing on how to relate and to participate in systemic exchange.

The value *capture* function appears to be the one where the commercial and sustainability business models' organizational value logics differ most significantly. The commercial business model, on the one hand, dictates an economic value capture, typically in the form of profit that benefits company owners. It is aimed at continuous economic growth. The sustainability business model logic, on the other hand, dictates a blended value capture for a number of different stakeholders. In the sustainability logic, economic value capture for the organization is considered a potential means to the end of achieving optimum scale. This might involve growth, but also shrinking or maintenance of the company size. Commercial and sustainability business model value capture share a basic purpose. Both are meant to explain what the organization's impact is and of how its economic reproduction formula achieves optimum scale. The meta business model logic

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<sup>&</sup>lt;sup>1</sup> The notion of 'value delivery', which has become most common in the commercial business model literature (Chesbrough & Rosenbloom, 2002; Dubosson-Torbay, et al., 2002; Osterwalder & Pigneur, 2010), has been replaced in this article by the less common, but still well–established term 'value exchange'. The reason for this replacement is, on the one hand, that the idea of one-directional delivery of value from supplier to producer to distributor to customer is at odds with the part of the commercial business model literature describing multi-directional exchange (Al-Debei & Avison, 2010; Zott, et al., 2011). On the other hand, value exchange and the partnership aspect implied in it better reflects emerging conceptualizations in sustainability business models of distributed value creation. This includes the inter-dependence of multiple business models in the value creation process (Breuer & Lüdeke-Freund, 2014), as well as multiple loci in a networked value creation and destruction process (Roome & Louche, 2016).

constructed from bringing these characteristics of the value functions together can be summarized as follows:

The meta business model logic describes what kind of value is to be offered to whom to the benefit of what (P); what is needed to create this value and how the value creation process is to be governed (C); how to relate to others and participate in systemic exchange (E); as well as the organization's impact and its reproduction mechanisms to achieve optimum scale (C).

The meta business model logic is a synthesis of the shared themes between both commercial and sustainability business models. It shows the common ground. However, there *are* a large number of tensions between the organizational value logics of commercial and sustainability business model outside this common ground. For the blending of the logics both common ground and the tensions between both logics are of relevance. The most salient tensions that emerged through the analysis will be exemplified in the next section.

Tensions between Commercial and Sustainability Value Logics [RQ3]

The third research question had asked: 'What tensions exist between commercial and sustainability business model logics?' This section provides an illustration of prominent tensions found through the comparative literature review. Table P2. 4 is an overview of five salient tensions. The tensions rose between the distinct understandings of value functions of the commercial and sustainability business model value logics. Several tensions may exist in every value function. The five tensions exemplified in the table represent only a sample of salient tension out of the larger number of potential tensions. Tensions emerged through conflicting, partly contradictory concepts and themes in the commercial and sustainability business model literatures. The table is aimed at explaining each tension at sufficient depth for basic comprehension. Only one tension will be explained in depth here in the main text. It serves to exemplify how tensions emerge between the commercial and sustainability business model value logics.

The 'growth versus optimum scale' tension emerges between the commercial business model's theme of value capture for business growth and the sustainability business model's theme of pursuing optimum scale. Optimum scale may require active degrowth or maintenance of an organization's size. The commercial business model position on growth is represented by the theme of 'economic viability, success, growth' (see Figure

P2. 3). A commercial business model is meant to make a profit not only to pay out directly to owners. It is also meant to be invested in 'future growth' (C49). Their organizational value logic requires commercial business models to drive 'spectacular' (C11) and 'transformational growth' (C50). One of the rationales behind this is for business models to be 'scalable and benefit from economies of scale' (C28). It appears that in the commercial business model logic, economic growth generally is a favoured characteristic and a taken for granted element of the 'success of a (...) venture' (C30).

The sustainability business model logic, however gives growth a more nuanced meaning as represented in the theme of 'reproduction for optimum scale' (see Figure P2. 4). Depending on the role that an organization plays in achieving sustainable development, growth may be evaluated positively or negatively. Organizations, whose impact on sustainable development is negative, may be preferred to be 'viable at low volumes' (S32). For such organizations, de-growth mechanisms such as the 'significant reduction of (...) plants' (S44) are in line with the sustainability business model logic. However, for companies that play a positive role in achieving sustainable development growth or to 'develop scale-up solutions' (S4) is considered favourably. This means that under these conditions 'increasing the number' of outlets and 'expanding (...) services' (S47) is aligned with the organizational value logic of sustainability business models. The 'growth versus optimum scale' tensions emerge between the commercial business model's continuous growth theme and the sustainability business model's logic of 'smaller is better', which applies to the major share of organizations, not contributing positively to sustainable development. Through this example we see how tensions emerge where commercial and sustainability value logics are contradictory.

Table P2. 4 Tensions between Commercial and Sustainability Business Model Logics

	Aspect of commercial	Tensions	Aspect of sustainability
	business model (CBM) value logic		business model (SBM) value logic
Proposition	The value proposition has to be optimized for customers only.  → SBM's consideration for multiple stakeholders is a distraction.	Customers versus wider stakeholders	A value proposition has to address the needs of multiple stakeholders.  → CBM's customer focus is incomplete and skewed as it covers only one out of many relevant stakeholders.
Creation	Economic value creation has to be governed to achieve maximum customer value (effectiveness), with minimum resource use (efficiency) → Social and environmental value creation activities as required by the SBM logic lead to inefficiencies unless they are instrumental for economic value creation.	Economic versus blended value creation	Social, environmental and economic value creation must be blended, which involves meticulous attention to social and environmental issues and opportunities in value creation.  → The CBM's economic effectiveness and efficiency focus limits social and environmental value creation efforts.
Exchange	Exchange is a mere means for economic value creation.  → SBM's foregrounding of exchange partner welfare may be a competing priority to economic value creation.	Exchange as a means versus relationships as an end.	The welfare of exchange partners is an end in itself as part of the social value creation imperative of sustainable development.  → The CBM's instrumental view of exchange threatens partners' interests as their welfare is of no concern unless it matters for economic value creation.
a	Businesses have to grow to ensure continuously increasing value capture.  → The SBM logic might require maintenance or shrinking.	Growth versus optimum scale	Organizations have to achieve optimum scale for sustainability  → The CBM's continuous growth requirement may also grow an organization's negative environmental impact.
Capture	Economic value captured for the company and its owners has to be maximized.  SBM's redistribution of value reduces the value captured for company and owners.	Maximum profit versus redistribution	Social, environmental and economic value created has to be redistributed among stakeholders and only the amount should be captured for the organization that is necessary to achieve or maintain optimum scale.   Maximizing owners' economic value as required by the CBM logic does not allow for redistribution.

## Conclusions, Discussion and Future Research

The conceptual proposition of this paper is that distinct value logics of business models are influenced by different institutional logics. Commercial business models have been influenced by the institutional logic of the market, sustainability business models by the institutional logic of sustainable development. Actual businesses are likely to blend these logics in their organizational value logic. This proposition is explored further through a structured review of the commercial and sustainability business model literatures.

It was found that commercial and sustainability business model discussions implied distinct logics across the value proposition, creation, exchange and capture functions. These distinct logics reflect the larger institutional logics of the market (commercial business models) and of sustainable development (sustainability business models). These distinct logics share common themes which allow for the development of a common meta business model. However, commercial and sustainability business models also exhibit major tensions between their organizational value logics that manifest across all of their value functions. For the blending of both logics in sustainable business and corporate sustainability, both common ground and tensions are highly relevant. These findings contribute to existing discussions, to spark new ones and they also open up clear avenues for future research which will be outlined briefly in the following sections.

'Organizing', Institutional Complexity and Multiple Organizational Value Logics
As outlined before, an ideal-type sustainability business model is unlikely to exist. Actual business models will most likely also have aspects that are aligned with the institutional logic of the commercial market. This is well represented in the literature describing how organizational realities are inherently influenced by multiple institutional logics resulting in institutional complexity (Greenwood, et al., 2011; Kodeih & Greenwood, 2014). This institutional complexity will require strategic responses (Vermeulen, et al., 2014), for instance in the context of managing corporate sustainability (Testa, et al., 2015).

A good example is a for-profit corporation such as Unilever that distinguishes itself through its advanced sustainable development goals (the 'Sustainable Living Plan'). Any family business, in a way already listens to hybrid logics, the one of the market and of the family. One particularly well-documented situation of how multiple institutional logics come together in one organization, is the hybrid organizations literature (Battilana, et al., 2012; Cooney, 2006; Grassl, 2012), which has developed in the social enterprise context. In hybrid enterprises, the institutional logics of social welfare and commerce co-exist and require attention and intervention (Pache & Santos, 2013). Managed well, the tensions between the logics such as the ones found in this paper may well be 'productive' and can be harnessed (Battilana, et al., 2015). The concept of 'hybrid organizing' contextualizes well such interventions grounded in tensions between two (or more) institutional logics (Battilana & Lee, 2014).

More recently, the idea of hybrid organizing and hybrid organizations has been translated from the social enterprise context to wider application. Hybrid organizations

may well show tensions between commercial and sustainable development logics instead of the 'social welfare logic' that dominates the social enterprise literature (Boyd, et al., 2009; Haigh & Hoffman, 2012). Also, traditional for-profit corporations may engage in hybrid, or rather 'heterogeneous' organizing<sup>2</sup> efforts between the commercial and alternative organizational value logics (Papers 3, 4 of this thesis). Such organizing may include coping with multiple co-existing institutional logics in one organizational value model (Kurland & Aleci, 2015).

This paper contributes to these literatures, by showing the potential tensions between the organizational value logics of commercial and sustainability business models. These tensions may create the need for heterogeneous organizing in the corporate sustainability context. This has larger implications. Hybrid organizing may be relevant for most organizations, not only in social enterprises and in corporate sustainability. Organizing through business models and their organizational value logics that listen to multiple institutional logics may be relevant for a wide variety of organizations.

Bridges between Extreme Positions in the Sustainability Business Model Discussion. The business model discussion has been born out of the commercial context. It has therefore been influenced by the institutional logic of commercial markets. This influence is reflected strongly in the main themes of the commercial business model logic as visualized in Figure P2. 3. The business model concept has recently been applied to organizations dominantly influenced by distinct institutional logics, such as the ones of family, the state, religion, social welfare and of sustainable development.

As the core logic of these models is distinct from the one of the commercial, market-driven business, the organizational value logic of commercial 'business' is prone to be an ill fit. This manifests in tensions such as the ones between commercial and sustainability business models shown in the findings section. The academic sustainability business model discussion has questioned the usefulness of the commercial business model in the sustainability business model context. These discussions include both strong opposition to the commercial business model logic (Randles & Laasch, 2015, Paper 1 this thesis; Stubbs & Cocklin, 2008) and integrative approaches between commercial and sustainability business model logics (Boons & Lüdeke-Freund, 2013; Upward & Jones,

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<sup>&</sup>lt;sup>2</sup> Possibly the term 'heterogeneous organizing' would capture the institutional complexity of more than two competing institutional logics better than 'hybrid' organizing which, understood literally, only refers to tensions between two institutional logics, not more.

2015). This paper contributes to these discussion by proposing a method for developing meta-logics of organizational value creation that can capture both commercial and alternative institutional logics. It may serve as a 'neutral ground' for coupling intact elements from competing institutional logics (Pache & Santos, 2013), such as the ones reflected in the tensions between the distinct organizational value logics in this paper. The idea of coupling these logics using the meta business model is a compromise between the extremes of opposing and integrating commercial and sustainability business models.

Emancipation of Alternative Business Models from the Commercial Logic? The 'business' model concept per se appears to apply to a wide variety of organizations, many of which are actually not businesses. Even fewer are stereotypical 'capitalist', entirely commercial businesses. This paper has proposed to move from the idea of 'business' (value) models, towards organizational value models. This proposition is an implicit suggestion to emancipate the business model concept from its roots in the institutional logic of the commercial market. The meta business model (or meta organizational value model) developed as the common ground between commercial and sustainability business models represents a first step. It may lead towards a conceptualization of an organizational value logic, open enough to be filled with any institutional logic an organization may listen to dominantly. However, it is also specific enough to represent the basic functions of organizational value proposition, creation, exchange and capture. If emancipation was to happen, the commercial business model with its orientation towards the institutional logic of the market would be merely one out of many organizational value logics. It would be on an equal conceptual level with the organizational value logics of, for instance, the public sector, faith-based organizations, family business and sustainability-driven organizations.

The emancipation of the business model concept from its commercial roots would imply a multi-facetted future research agenda exploring a variety of organizational value logics outside the currently dominant commercial market logic. Research creating a deeper appreciation of alternative organizational value logics other than the one of sustainability business appears promising. Particularly, the business models for social enterprise literature (Seelos & Mair, 2005; Seelos & Mair, 2007; Yunus, et al., 2010) appears to be mature enough to conduct a similar study to the one in this paper. Such research may create a deeper appreciation of the organizational value logics of social enterprise and of how they relate to a commercial logic.

Towards a Multi-directional Conceptual Flow in the Business Model Discussion? The emancipation of the business model concept from its roots in the institutional logic of the commercial market also implies a foregrounding of alternative organizational value logics. Currently, these discussions are rather seen as offshoots from the dominant commercial business model discussion. However, they may become equal conceptual contributors to the larger organizational value logics discussion. In such a scenario, the conceptual flow would not only move from commercial business model to alternative organizational value logics. It would also move the other way around. Conceptual advances from the alternative organizational value logics may inform commercial business model concepts.

Evidence of such a reversal of the conceptual flow can be found already. An example is Osterwalder and Pigneur's (2010) book 'Business Model Generation', the most cited commercial business model source. The authors propose the triple bottom line from sustainability thinking as an alternative understanding of value capture. Zott and colleagues (2011) suggest that, while the customer value proposition is the dominant one in the business model discussion, also a wider stakeholder value proposition is present. This resembles the stakeholder-centred value proposition prevalent in the sustainability business model discussion. Another piece of evidence for how alternative business models begin to enter the dominant business model discussion is that among the initially identified top-50-cited business model sources on Google Scholar, four were closely related to alternative business models. Three of them related to social enterprise (Seelos & Mair, 2005; Seelos & Mair, 2007; Yunus, et al., 2010) and one to faith-based business (Beck, et al., 2013). The most cited sustainability business model source, with 213 citations, was just slightly below the 252 citations of the lowest cited commercial business model source.

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# Appendix

**Table P2. 5 Final Set of Articles Included into Structured Review** 

#	Sources	Citations GS/ WoS	
Commerc	ial business model literature		
C1	Osterwalder, A., & Pigneur, Y., 2010. Business model generation. Chichester: Wiley.	3426*	
C2	Chesbrough, H., & Rosenbloom, R. S. (2002). The role of the business model in capturing value from innovation: Evidence from Xerox Corporation's technology spin-off companies. Industrial and Corporate Change, 11(3), 529-555.		
C3	Timmers, P. (1998). Business models for electronic markets. Electronic Markets, 8(2), 3-8.	2791	
C4	Magretta, J., 2002. Why business models matter. Harvard Business Review, 80(5), pp. 86-92.		
C <b>5</b>	Chesbrough, H., 2006. Open business models: How to thrive in the new innovation landscape. Boston: Harvard Business Press.		
C6	Teece, D. J. (2010). Business models, business strategy and innovation. Long Range Planning, 43(2), 172-194.	2205/371	
C <b>7</b>	Afuah, A., & Tucci, C. L. (2000). Internet business models and strategies: Text and cases. McGraw-Hill Higher Education.	1821	
C8	Osterwalder, A., Pigneur, Y., & Tucci, C. L. (2005). Clarifying business models: Origins, present, and future of the concept. Communications of the Association for Information Systems, 16(1), 1-25.		
C9	Osterwalder, A., 2004. The business model ontology: A proposition in a design science approach. Lausanne: University of Lausanne.	1566	
C10	Morris, M., Schindehutte, M., & Allen, J. (2005). The entrepreneur's business model: Toward a unified perspective. Journal of Business Research, 58(6), 726-735.	1461/259	
C11	Johnson, M. W., Christensen, C. M., & Kagermann, H. (2008). Reinventing your business model. Harvard Business Review, 86(12), 57-68.	1437/107	
C12	Chesbrough, H. (2010). Business model innovation: Opportunities and barriers. Long Range Planning, 43(2), 354-363.		
C13	Zott, C., Amit, R., & Massa, L. (2011). The business model: Recent developments and future research. Journal of Management, 37(4), 1019-1042.		
C14	Shafer, S. M., Smith, H. J., & Linder, J. C. (2005). The power of business models. Business Horizons, 48(3), 199-207.	1124	
C15	Mahadevan, B. (2000). Business models for Internet-based e-commerce: An anatomy. California Management Review, 42(4), 55-69.	1016	
C16	Rappa, M., 2000. Business models on the web. [Online] Available at: http://digitalenterprise.org/ [Accessed 02 March 2016].	963*	
C17	Zott, C., & Amit, R. (2010). Business model design: An activity system perspective. Long Range Planning, 43(2), 216-226.	909/160	
C18	Casadesus-Masanell, R., & Ricart, J. E. (2010). From strategy to business models and onto tactics. Long Range Planning, 43(2), 195-215.	847/ 131	
C19	Zott, C., & Amit, R. (2008). The fit between product market strategy and business model: Implications for firm performance. Strategic Management Journal, 29(1), 1-26.	791/182	
C20	Hedman, J., & Kalling, T. (2003). The business model concept: Theoretical underpinnings and empirical illustrations. European Journal of Information Systems, 12(1), 49-59.	675/125	
C21	Chesbrough, H. W. (2007). Why companies should have open business models. Sloan Management Review, 48(2), 22.	672/101	
C22	Gordijn, J., & Akkermans, H. (2001). Designing and evaluating e-business models. IEEE Intelligent Systems, (4), 11-17.	670/144	
C23	Linder, J. & Cantrell, S., 2000. Changing business models: Surveying the landscape. Cambridge: Accenture Institute for Strategic Change.	660*	
C24	Chesbrough, H. (2007). Business model innovation: It's not just about technology anymore. Strategy & Leadership, 35(6), 12-17.	644	
C25	Baden-Fuller, C., & Morgan, M. S. (2010). Business models as models. Long Range Planning, 43(2), 156-171.	570/95	
C26	Demil, B., & Lecocq, X. (2010). Business model evolution: In search of dynamic consistency. Long Range Planning, 43(2), 227-246.	557/107	
C27	Dubosson-Torbay, M., Osterwalder, A., & Pigneur, Y. (2002). E-business model design, classification, and measurements. Thunderbird International Business Review, 44(1), 5-23.	503	
C28	Rappa, M. A. (2004). The utility business model and the future of computing services. IBM Systems Journal, 43(1), 32.	499/88	

C29	McGrath, R. G. (2010). Business models: A discovery driven approach. Long Range Planning, 43(2), 247-261.	432/90	
C30	Alt, R., & Zimmermann, H. D. (2001). Introduction to special section—business models. Electronic Markets, 11(1), 3-9.	411	
C31	Chesbrough, H., & Schwartz, K. (2007). Innovating business models with co-development partnerships. Research-Technology Management, 50(1), 55-59.		
C32	Petrovic, O., Kittl, C. & Teksten, R. D., 2001. Developing business models for eBusiness. In: Proceedings of the International Conference on Electronic Commerce. Vienna: International Center for Electronic Commerce.		
C33	Bonaccorsi, A., Giannangeli, S., & Rossi, C. (2006). Entry strategies under competing standards: Hybrid business models in the open source software industry. Management Science, 52(7), 1085-1098.		
C34	Sosna, M., Trevinyo-Rodríguez, R. N., & Velamuri, S. R. (2010). Business model innovation through trial-and-error learning: The Naturhouse case. Long Range Planning, 43(2), 383-407.		
C35	Chapman, R. L., Soosay, C., & Kandampully, J. (2003). Innovation in logistic services and the new business model: A conceptual framework. International Journal of Physical Distribution & Logistics Management, 33(7), 630-650.	344	
C36	Sadeh, N. (2003). M-commerce: Technologies, services, and business models. Chichester: Wiley.	334	
C37	Amit, R., & Zott, C. (2012). Creating value through business model innovation. MIT Sloan Management Review, 53(3), 41.	325/48	
C38	Wirtz, B. W., Schilke, O., & Ullrich, S. (2010). Strategic development of business models: Implications of the Web 2.0 for creating value on the internet. Long Range Planning, 43(2), 272-290.		
C39	Weill, P., & Vitale, M. (2002). What IT infrastructure capabilities are needed to implement e-business models? Management Information Systems Quarterly, 1(1), 17.	312/70	
C40	Qizhi Dai, R. J. K. (2002). Business models for internet-based B2B electronic markets. International Journal of Electronic Commerce, 6(4), 41-72.	311/78	
C41	Doz, Y. L., & Kosonen, M. (2010). Embedding strategic agility: A leadership agenda for accelerating business model renewal. Long Range Planning, 43(2), 370-382.	308/69	
C42	Doganova, L., & Eyquem-Renault, M. (2009). What do business models do? Innovation devices in technology entrepreneurship. Research Policy, 38(10), 1559-1570.		
C43	Weinhardt, C., Anandasivam, A., Blau, B., Borissov, N, Meinl, T., Michalk, W., Stößer, J. (2009). Cloud computing—a classification, business models, and research directions. Business & Information Systems Engineering, 1(5), 391-399.	297/43	
C44	Gambardella, A., & McGahan, A. M. (2010). Business-model innovation: General purpose technologies and their implications for industry structure. Long Range Planning, 43(2), 262-271.	277/46	
C45	Tikkanen, H., Lamberg, J. A., Parvinen, P., & Kallunki, J. P. (2005). Managerial cognition, action and the business model of the firm. Management Decision, 43(6), 789-809.	276	
C46	Stewart, D. W., & Zhao, Q. (2000). Internet marketing, business models, and public policy. Journal of Public Policy & Marketing, 19(2), 287-296.	269/43	
C47	Al-Debei, M. M., & Avison, D. (2010). Developing a unified framework of the business model concept. European Journal of Information Systems, 19(3), 359-376.	269/38	
C48	Hoegg, R., Martignoni, R., Meckel, M. & Stanoevska-Slabeva, K., 2006. Overview of business models for Web 2.0 communities. In: Proceedings of GeNeMe. Dresden: Technische Universität Dresden, p. 23–37.	268	
C49	Bouwman, H., de Vos, H., & Haaker, T. (Eds.). (2008). Mobile service innovation and business models. Berlin: Springer.	259	
C50	Johnson, M. W. (2010). Seizing the white space: Business model innovation for growth and renewal. Harvard Business Press.	252	
Sustainabi	lity business model literature		
S1	Boons, F., & Lüdeke-Freund, F. (2013). Business models for sustainable innovation: State-of-the-art and steps towards a research agenda. Journal of Cleaner Production, 45, 9-19.	213/35	
S2	Stubbs, W., & Cocklin, C. (2008). Conceptualizing a "sustainability-oriented business model". Organization & Environment, 21(2), 103-127.	191/37	
S3	Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2012). Business cases for sustainability: The role of business model innovation for corporate sustainability. International Journal of Innovation and Sustainable Development, 6(2), 95-119.		
S4	Bocken, N. M. P., Short, S. W., Rana, P., & Evans, S. (2014). A literature and practice review to develop sustainable business model archetypes. Journal of Cleaner Production, 65, 42-56.	139*	

S5	Boons, F., Montalvo, C., Quist, J., & Wagner, M. (2013). Sustainable innovation, business	132/20	
S6	models and economic performance: An overview. Journal of Cleaner Production, 45, 1-8.  Lazonick, W., & Tulum, Ö. (2011). US biopharmaceutical finance and the sustainability of the biotech business model. Research Policy, 40(9), 1170-1187.		
S7	Darby, L., & Jenkins, H. (2006). Applying sustainability indicators to the social enterprise business model: The development and application of an indicator set for Newport Wastesavers, Wales. International Journal of Social Economics, 33(5/6), 411-431.		
58	Shrimali, G., Slaski, X., Thurber, M. C., & Zerriffi, H. (2011). Improved stoves in India: A study of sustainable business models. Energy Policy, 39(12), 7543-7556.		
<b>S</b> 9	Wüstenhagen, R., & Boehnke, J. (2008). Business models for sustainable energy. In System Innovation for Sustainability 1: Perspectives on Radical Changes to Sustainable Consumption and Production (Vol. 70, No. 79, pp. 70-79). Sheffield: Greenleaf.		
510	Birkin, F., Cashman, A., Koh, S. C. L., & Liu, Z. (2009). New sustainable business models in China. Business Strategy and the Environment, 18(1), 64-77.		
S11	Bohnsack, R., Pinkse, J., & Kolk, A. (2014). Business models for sustainable technologies: Exploring business model evolution in the case of electric vehicles. Research Policy, 43(2), 284-300.		
S12	Richter, M. (2013). Business model innovation for sustainable energy: German utilities and renewable energy. Energy Policy, 62, 1226-1237.	51/11*	
813	Hall, J., & Wagner, M. (2012). Integrating sustainability into firms' processes: Performance effects and the moderating role of business models and innovation. Business Strategy and the Environment, 21(3), 183-196.		
514	Seelos, C., & Mair, J. (2005). Entrepreneurs in service of the poor: Models for business contributions to sustainable development. Business Horizons, 48(3), 241-246.	47	
515	Matos, S., & Silvestre, B. S. (2013). Managing stakeholder relations when developing sustainable business models: The case of the Brazilian energy sector. Journal of Cleaner		
S16	Production, 45, 61-73.  Birkin, F., Polesie, T., & Lewis, L. (2009). A new business model for sustainable development: An exploratory study using the theory of constraints in Nordic organizations.		
S17	Business Strategy and the Environment, 18(5), 277-290.  Esslinger, H. (2011). Sustainable design: Beyond the innovation-driven business model.  Journal of Product Innovation Management, 28(3), 401-404.		
S18	Lüdeke-Freund, F. (2009). Business model concepts in corporate sustainability contexts:  From rhetoric to a generic template for 'business models for sustainability'. Centre for Sustainability Management (CSM), Leuphana Universität Lüneburg, ISBN, 978-3.		
S19	Mihalič, T., Žabkar, V., & Cvelbar, L. K. (2012). A hotel sustainability-oriented business model: Evidence from Slovenia. Journal of Sustainable Tourism, 20(5), 701-719.		
S20	Høgevold, N. M., & Svensson, G. (2012). A business sustainability model: A European case study. Journal of Business & Industrial Marketing, 27(2), 142-151.		
S21	Jakl, T., Joas, R., Nolte, R., Schott, R., & Windsperger, A. (2003). Chemical leasing: An intelligent and integrated business model with a view to sustainable development in materials management. Heidelberg: Springer.		
S22	Høgevold, N. M. (2011). A corporate effort towards a sustainable business model: A case study from the Norwegian furniture industry. European Business Review, 23(4), 392-400.	31	
523	Wells, P. E. (2004). Creating sustainable business models: The case of the automotive industry. IIMB Management Review, 16(4), 15-24.		
S24	Furlong, K., & Bakker, K. (2010). The contradictions in 'alternative' service delivery: Governance, business models, and sustainability in municipal water supply. Environment and Planning C: Government and Policy, 28(2), 349-368.		
S25	Krombholz, K., Merkl, D., & Weippl, E. (2012). Fake identities in social media: A case study on the sustainability of the Facebook business model. Journal of Service Science Research, 4(2), 175-212.	23/11	
S26	Wells, P. E. (2013). Business models for sustainability. Cheltenham: Edward Elgar.	23	
S27	Girotra, K., & Netessine, S. (2013). OM Forum-business model innovation for sustainability. Manufacturing & Service Operations Management, 15(4), 537-544.		
528	Svensson, G., & Wagner, B. (2011). A process directed towards sustainable business operations and a model for improving the GWP-footprint (CO2e) on earth. Management of Environmental Quality: An International Journal, 22(4), 451-462.		
529	Hannon, M. (2012). Co-evolution of innovative business models and sustainability transitions: The case of the energy service company (ESCo) model and the UK energy system. University of Leeds.		
S30	Outterson, K. (2014). New business models for sustainable antibiotics. Centre on Global Health Security Working Group Papers, Chatham House (The Royal Institute of International Affairs), Working Groups on Antimicrobial Resistance, Paper 1, 14-10.	20*	

S31	Perthen-Palmisano, B., & Jakl, T. (2005). Chemical leasing-cooperative business models	18/9
	for sustainable chemicals management: Summary of research projects commissioned by the	
	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management.	
	Environmental Science and Pollution Research, 12(1), 49-53.	
S32	Wells, P., 2008. Alternative business models for a sustainable automotive industry. In: A.	18*
	Tukker, et al. eds. Perspectives on radical changes to sustainable consumption and	
	production: System innovation for sustainability. Sheffield: Greenleaf, 80-98.	
S33	Kolk, A., & van den Buuse, D. (2012). In search of viable business models for development:	16
	Sustainable energy in developing countries. Corporate Governance, 12(4), 551-567.	
S34	Arevalo, J. A., Castelló, I., de Colle, S., Lenssen, G., & Neumann, K. (2011). Introduction to	14
	the special issue: Integrating sustainability in business models. Journal of Management	
	Development, 30(10), 941-954.	
S35	Andersson, B., Bergholtz, M., Edirisuriya, A., Ilayperuma, T., Jayaweera, P., Johannesson,	14
	P., & Zdravkovic, J. (2008). Enterprise sustainability through the alignment of goal models	
	and business models. In Proceedings of 3rd International Workshop on Business/IT-	
	Alignment and Interoperability (BUSITAL'08) CEUR Workshop Proceedings.	
S36	Aho, I. (2013). Value-added business models: Linking professionalism and delivery of	14
350	sustainability. Building Research & Information, 41(1), 110-114.	1-7
S37	Osborne, S. P., Radnor, Z., Vidal, I., & Kinder, T. (2014). A sustainable business model for	13/7
) )	public service organizations? Public Management Review, 16(2), 165-172.	1 3/ 1
S38	Lueg, R., Pedersen, M. M., & Clemmensen, S. N. (2015). The role of corporate	13/1
550		13/1
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# PAPER 3. COMMERCIAL AND RESPONSIBILITY-SUSTAINAILITY COMBINATION IN FTSE 100 BUSINESS MODEL DEVICES

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#### **Abstract**

Since 2014, FTSE100 corporations combine commercial elements with responsibilitysustainability elements in their business model descriptions, 'the devices'. Such 'combination' has been described as a response to prescriptions from plural institutional logics. I suggest the FTSE100 respond to commercial and responsibility-sustainability<sup>1</sup> logics by combining elements from both in their business model devices. This paper explores the phenomenon in two ways. First I study the prevalence of combination among the FTSE100. I find that over half of the FTSE100 descriptions have combined commercial and responsibility-sustainability elements. Secondly, I study the mechanisms through which combined business model devices were constructed. Through a thematic template analysis, a framework of six combination mechanisms was developed. It draws from the institutional logics and business model literatures. I suggest that combination between institutional logics is relevant and should be studied beyond the currently dominant research context of hybrid organizations. The implications for embedding and tensions in responsibility-sustainability as well as for alternative business model research are discussed. Finally, the transformation of logics through prescription, inscription and description is discussed in the business model change context.

#### **Keywords**

combination, responsibility-sustainability, business model device, institutional logics, hybrid organizing

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<sup>&</sup>lt;sup>1</sup> The term responsibility-sustainability is meant to capture the entangled nature of both topics.

#### Introduction

Our Business Model: '(...) is to harness our home improvement experience, our heritage as a leader in sustainability and our scale and sourcing capability to bring new, more sustainable and more affordable products to market. This means our customers can have better homes, the planet's resources can be protected and we generate value for our people, communities and shareholders.' (Kingfisher; emphasis added)

The writing of this paper has been motivated by a phenomenon visible in statements like the one above. Kingfisher, a large do-it-yourself retail chain described their business model as combination of commercial elements (e.g. 'scale', 'sourcing capability') and responsibility-sustainability<sup>2</sup> elements (e.g. 'leader in sustainability', 'the planet's resources'). Kingfisher also combined both types of elements in statements such as 'sustainable and affordable products' or 'communities and shareholders'. Kingfisher is one of the FTSE100 corporations listed on the London Stock Exchange. Such combinations were visible across the business model descriptions of these corporations included in their annual reports.

Finding combinations of commercial and responsibility-sustainability in a typical commercial corporation's business model is intriguing. This paper explores this phenomenon. First, I will study how common such combinations are among the whole group of the FTSE100. Secondly, I will study the mechanisms through which corporations combine commercial and responsibility-sustainability elements.

My study of the phenomenon brings together two literatures in one framework. On the one hand, there is the literature on responding to the prescriptions of multiple institutional logics. This literature provides a basis for studying the combination between commercial and responsibility-sustainability elements. On the other hand, I apply the literature on business model devices. The FTSE100 business model descriptions are considered such a business model device. This literature provides a basis for studying how these devices are constructed through the combination of business model elements. I use both literatures together to build a framework that explains how business model devices are constructed from business model elements related to commercial and responsibility-sustainability.

<sup>&</sup>lt;sup>2</sup> The term 'responsibility-sustainability' is used to describe the entangled nature of both topics.

# Institutional Logics: Coupling Commercial and Responsibility-Sustainability Elements

Kingfisher had combined commercial elements and responsibility-sustainability elements in their business model device. I will suggest that such combinations are a response to the prescriptions from commercial and responsibility-sustainability logics. Friedland and Alford (1991) had referred to institutional logics as derived from big 'central' institutions such as the market, state, religion, or family. They suggest that these institutions' logics influence, individual and organizational 'preferences and interests as well as repertoire of behaviors' (p. 232). Thornton and Ocasio (1999) define institutional logics beyond big institutions and allude to their social construction:

'Socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.' (p. 804)

Institutional logics manifest on multiple levels including individuals and organizational levels (Friedland & Alford, 1991; Thornton & Ocasio, 1999; Thornton & Ocasio, 2008).

Institutional Complexity and Tensions

Friedland and Alford (1991) stress that institutional logics are 'potentially contradictory and hence make multiple logics available' (p. 232). Such institutional plurality leads to complex situations where organizations have to respond to multiple, often contradictory institutional demands (Greenwood, et al., 2011).

Institutional logics influence organizations leading to tensions such as the one between the medical logic and the business logic in healthcare organizations (Reay & Hinings, 2009). Another example is the tension between editorial logic and the market logic in publishing companies (Thornton, 2002). I suggest that the combination of commercial and responsibility-sustainability logics in FTSE100 business model descriptions may relate to such tensions.<sup>3</sup> It is one such example for the manifestation of institutional logics on the organizational level. The commercial logic of the market (Jones, 1996) comes together with institutional logics of societal responsibility (Ioannou & Serafeim, 2015; Muthuri & Gilbert, 2011; Pache & Santos, 2013; Westermann-Behaylo, et

<sup>&</sup>lt;sup>3</sup> The discussion section elaborates on how these combinations may both be responses to tensions and may create further tensions.

al., 2013) and of sustainable development (Heiskanen, 2002; Noren & Malmborg, 2004)<sup>4</sup>. Accordingly, the FTSE100 are likely to be subject to plural prescriptions from the commercial market logic, of societal responsibility and of the logic of sustainable development.

The previous examples showed the influence of institutional logics on organizations. They mostly referred to merely two conflicting institutional logics. However, the concept has also been applied to the interaction between more than two institutional logics and on the individual level. A variety of institutional logics is at play in the individual interactions in a variety of settings. For instance, Kurland and Aleci (2015) find six institutional logics at play between vendors and buyers in public markets. McPherson and Sauder (2013) observe how four institutional logics influence peoples' interaction in a drug court. Cox-Pahnke (2015) study how the interaction between partners in business ventures is influenced by their institutional logics. I suggest that the FTSE100 combinations of business model elements related to commercial and responsibility-sustainability are not only organization-level responses to institutional complexity. Groups of individuals with their institutional logics shape the business model description for the annual report. Accordingly, these combinations of institutional logics are as much individual as organizational responses to prescriptions from plural institutional logics (Greenwood, et al., 2011).

Responding to Institutional Complexity by Combination

The combination of elements from distinct institutional logics has been observed as a typical response to institutional complexity. Particularly relevant for the FTSE100 context is research conducted in the context of 'hybrid organizations'. Hybrid organizations are typically understood as social enterprises<sup>5</sup> that combine commercial and social welfare logics (Pache & Santos, 2013).

The hybrid organizations literature has described a wealth of responses to plural institutional logics (Jay, 2013; Mair, et al., 2015). Mair and colleagues (2015, p. 713)

<sup>&</sup>lt;sup>4</sup> See Paper 2 for an elaboration on the emergence and characteristics of the institutional logic of sustainable development.

<sup>&</sup>lt;sup>5</sup> Although the recent discussion on hybrid organizations typically relates them to the social enterprise or not-for-profit sector, the concept was originally conceived as a spectrum out of which NGOs and social enterprises are just one extreme end. The spectrum ranges from income generating not-for profit organizations on the one end, to traditional for-profit corporations practicing corporate responsibility-sustainability on the other end (Alter, 2007). This research project was originally positioned as hybrid organizing efforts of big corporations that enter the hybrid spectrum from the corporate for-profit-business side.

observe 'governance practices' in two categories, either prioritization of one institutional logic, or combination of multiple logics. Battilana and Lee (2014, p. 397) approach such responses to institutional prescriptions as 'hybrid organizing'. They suggest that organizations may either respond to hybrid logics by differentiating or integrating elements related to distinct institutional logics. The term 'combination' of elements from distinct logics has been used as an umbrella for all of the strategies involving two or more logics. For instance, Mair and colleagues (2015, p. 713), describe 'mechanisms to combine and balance the prescriptions of several institutional logics'. Pache and Santos (2013, p. 975), observe a 'combination of activities drawn from each logic'. Battilana and Lee (2014) propose to 'combine multiple organizational forms', leading to a 'combination of multiple organizational identities'. Such 'combinations' may involve an array of strategies such as harmonic 'integration' (Battilana, et al., 2012, p. 52), 'prioritization' or 'balancing' (Mair, et al., 2015, p. 713). Pache and Santos (2010, p. 469) build up on previous work to proposes strategies of 'compromise', 'avoidance', 'defiance' as well as 'manipulation' (Pache & Santos, 2010, p. 469).

#### Coupling Commercial and Responsibility-Sustainability Elements

The most relevant combination strategy for the context of business model devices like the FTSE100 descriptions, is that of 'coupling' (Pache & Santos, 2013, p. 972). Pache and Santos refer to 'selective coupling' as a strategy where 'intact elements' from each logic are tied together. In the next section it will be illustrated how business model device are compositions of such elements. Accordingly, the notion of coupling connects well to the device context. Coupling here is understood as one particular type of combination between logics. I will use 'coupling' to refer to instances where a particular commercial element has been connected to a responsibility-sustainability element. I refer to 'combined' or 'combination' more broadly to describe situations where commercial and responsibility-sustainability elements have been brought together.

Research on the combination of logics has mainly been conducted in the social enterprise context. However, it also appears highly relevant to the institutional complexity adumbrated by the FTSE100 business model descriptions. Battilana and Lee (2014, p. 425) reinforce this point through their statement on the application of combination in the corporate responsibility-sustainability context: 'We would expect it still to play an important, if less pronounced, role, in corporations that engage in CSR'. This paper is aimed at conceptually exploring large commercial businesses' responses to prescriptions

from commercial and responsibility-sustainability logics. The focus is not on further adding to the combination mechanisms, but on understanding if and how they work in the context of big corporations' business model devices.

### **Business Model Devices: Aligning Control and Value Elements**

The literature has described business models in three distinct ways. They have been understood as value logics, their enactment and as devices. First, business models have been described as companies' value logics, including proposition, creation, exchange and capture of value (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Teece, 2010; Zott & Amit, 2010). Secondly, they also have been understood as the enactment of that value logic (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009) leading to business model activity systems (Zott, et al., 2011; Zott & Amit, 2010). Third, and this is the understanding most relevant for this paper, they have been understood as 'devices' (Chesbrough & Rosenbloom, 2002; Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009).

Business Model Device Construction: Combination of Elements

Chesbrough and Rosenbloom (2002) first described the business model as a device. They understand it 'as a focussing device, that mediates between technology development and economic value creation' (Chesbrough & Rosenbloom, 2002, p. 532). It is a device, an artefact created to 'do' something, to develop agency. This agency is in the business model contex. This understanding of business models has been taken up by Doganova and Eyquem-Renault (2009) who describe business models as 'market devices'. In the context of a business venture, they observe how business model devices develop agency by constructing the businesses they describe. Such business model devices may take material form such as products, business plans, power point presentations or websites (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). Business model descriptions in the FTSE100 annual report are one type of such a device. They are visual-textual sections in an annual report. Their explicit agency is to communicate a corporations' business model to readers of the report.

Devices are a 'composition' of 'heterogeneous elements' (Akrich, 1992, p. 205). When 'reporters' prepare business model descriptions for the annual report, they shape devices by combining these heterogeneous elements in a unique way. The results are

<sup>&</sup>lt;sup>6</sup> Papers 2 and 4 provide a detailed account of the business model functions of value proposition, creation, exchange and capture in the context of responsibility-sustainability.

FTSE100 business model devices such as the one of Kingfisher (Figure P3. 2). In the beginning of this paper we have learnt that both commercial and responsibility-sustainability elements were present in these devices. However, devices require 'elementary mechanisms of adjustment' to tie these elements together (Akrich, 1992, p. 207). The coupling between commercial and responsibility-sustainability elements observed in the Kingfisher case are such mechanisms at play. However, business model devices, as a particular type of device, come with additional types of elements and with mechanisms for tying them together. The elements are control and value elements, which are connected through the process of alignment.

## Aligning Value and Control Elements

According to Ballon, (2007), the elements of business models can be described as two types, value elements and control elements. Value elements describe what kind of value a business model is meant to create for which stakeholders. Control elements, on the other hand, describe elements of the business model that are necessary for creating, exchanging and capturing that value. In business models dominated by a commercial logic, these value elements mainly refer to the financial value created for shareholders and the value proposition for customers (Ballon, 2007). As we have seen the business model devices of the FTSE100 corporations control and value elements may also be influenced by responsibility-sustainability logics.

The control and value elements of combined business models may be related to value for manifold stakeholders. They are likely to go beyond commercial business models' shareholders and customers focus. For instance, in the Kingfisher example, we have seen the element of 'value for (...) communities'. The corporation's business model device also displayed responsibility-sustainability control elements such as the 'sourcing capability to bring new, more sustainable (...) products to market'. Research has documented business models that combine commercial and corporate responsibility-sustainability across value and control elements (Boons & Lüdeke-Freund, 2013; Hall & Wagner, 2012; Pirson, 2012; Sebastiani, et al., 2012). Building feasible business models depends on how well such control and value elements are tied together. To achieve this, Ballon (2007) highlights the importance of the process of 'alignment' between these control and value elements:

'The alignment of control and value parameters that is of most relevance to business modeling (...) that for a business model to be feasible, the control

variables on the one hand, and the value variables on the other hand, need to be strategically aligned' (p. 16).

Only a business model with adequate control elements will realize the value it proposes. Business model control elements have to be the 'right' means to the end of the value proposed. In Paper 1 (Randles & Laasch, 2016) we discuss this 'means-end' alignment in the context of alternative business models. We juxtapose business models' normative dimension (what ought to happen) with the governance instruments applied (to make it happen). If means and ends are 'misaligned' they may result 'in contradictory impulses and outcomes'. We theorize 'normative' business models with related to multiple institutional logics beyond the commercial one. In such business models alignment becomes a process that involves a wider set of means and ends than the ones influenced by a commercial logic. Shaping such business models requires the 'alignment of multiple governance tools, devices, techniques and forms of agency to orientate and steer (...) towards expressed societal values and normative goals.' (p. 62). Accordingly, business models logics made of elements following the prescriptions of plural institutional logics are formed through both processes. They rely on the alignment and coupling of control and value elements related to multiple institutional logics.

## Framework: How Elements from Logics Are Combined in Business Model Devices

What may be the mechanisms that construct business model devices combining commercial and responsibility-sustainability elements? From institutional logics literature we know that it involves processes of coupling. Such processed tie together intact elements related to each the commercial and responsibility-sustainability logics. From the business model literature we have seen that business model devices require processes of alignment. Such processes tie together control and value elements.

Both processes coupling and alignment are visible in the Kingfisher example. We had observed how Kingfisher's business coupled commercial and responsibility-sustainability elements. An example is the coupling between value for communities (responsibility-sustainability value element) and value for shareholders (commercial value element). The resulting statement is 'value for (...) communities and shareholders'. This exemplifies processes of coupling between elements from distinct institutional logics. Kingfisher's statement also described how means and ends, control and value elements were aligned. The corporation describes the means of 'home

improvement experience', 'heritage as a leader in sustainability', 'scale' and 'sourcing capability' (control elements). They are used towards the ends that 'customers can have better homes, the planet's resources can be protected and we generate value for our people, communities and shareholders' (value elements). The resulting statement is 'we harness our home improvement experience, our heritage as a leader in sustainability and our scale and sourcing capability to bring new, more sustainable and more affordable products to market'. This exemplifies 'alignment' a processes tying together business model devices' control and value elements. This exemplifies how a combined business model device may be constructed through coupling and alignment processes:

I understand the FTSE100 business model devices as constructed through the combination of elements. Responsibility-sustainability and commercial elements are coupled. They are also aligned as control and value elements.

The framework in Figure P3. 1 proposes six mechanisms based on these processes of combination and alignment. The framework is the result of a thematic analysis. It brought together deduction from institutional logics and business model concepts and induction from the FTSE100 data. I will now briefly outline the conceptual structure of the framework. It will be grounded empirically in the findings section.

Value and control elements may be primarily influenced by either the *commercial logic* or the responsibility-sustainability *logic*. An element may be primarily control or value, commercial or responsibility-sustainability. These distinctions are the basis of the four types of business model elements that form cornerstones of the framework. These types of elements are commercial control [CoC], commercial value [CoV], responsibility-sustainability control [RSC] and responsibility-sustainability value [RSV]. The mechanisms of coupling social and commercial elements and of aligning control and value elements tie together these elements to construct one device. Coupling and alignment processes may be combined, resulting in six potential mechanisms [I-VI] between the four types of business model elements [CoC, CoV; RSC; RSV].

The above model is on purpose broad and the six mechanisms are not described with greater detail. They will be qualified further throughout the presentation of the empirical findings. The research process leading to its development will be illustrated in depth in the following methods section.

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<sup>&</sup>lt;sup>7</sup> I use 'primarily' as few elements can be interpreted as unequivocally related to only one of the logics.

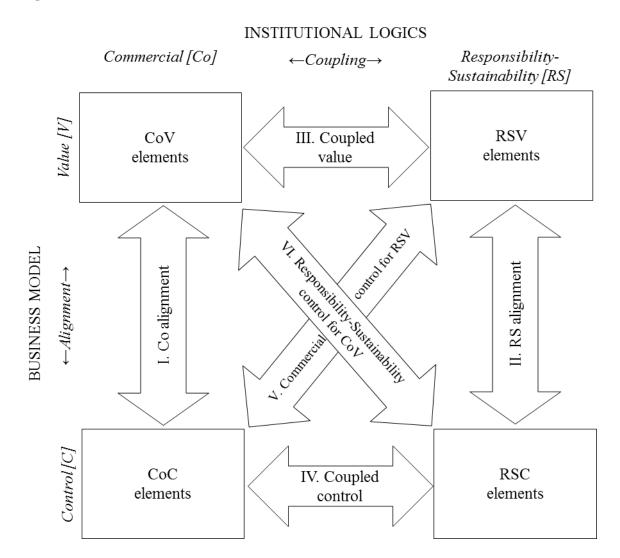


Figure P3. 1 A Framework of Combination in Business Model Devices

# Method: Questions, Sample and Coding

The first question of this paper is aimed at exploring how common the combination of commercial and responsibility-sustainability in business model devices is among FTSE100 corporations. This provides an appreciation of the larger relevance of the phenomenon. The second question is aimed at empirically grounding the framework of distinct combination mechanisms in the FTSE100 context. In the process, the characteristics of these broadly defined mechanisms will be qualified further through the use of original data:

**RQ1:** How prevalent is the combination of commercial and responsibility-sustainability elements across business model devices of FTSE100 corporations?

**RQ2:** Through what mechanisms can we explain the construction of business model devices that combine commercial and responsibility-sustainability elements?

These questions will be explored through the business model descriptions of the FTSE100 corporations. Kingfisher, which was used as an illustrative example throughout the paper's introduction, is one of these corporations.

# Sample Selection

The FTSE100 are the 100 most valuable corporations by market capitalization, listed in the London Stock Exchange. The business model descriptions in these corporations' reports typically consisted of a visual describing the business model (see Figure P3. 2) and a brief accompanying text. Both were included into the analysis. Ninety-six out of the FTSE100 included such business model sections.<sup>8</sup>

The FTSE100 were chosen for their promising characteristics to learn about business model combination mechanisms. The FTSE100 sample included globally recognized leaders in corporate responsibility-sustainability such as Unilever and M&S. Such corporations were likely to show responses to the prescriptions of both commercial and responsibility-sustainability logics. The FTSE100 also included corporations that reportedly had their difficulties responding to responsibility-sustainability prescriptions. Examples for controversial FTSE100 corporations were British Petroleum, British American Tobacco (BAT) and Rio Tinto. Also these corporations were likely to show responses to the responsibility-sustainability logic due to their past controversies. Accordingly, the FTSE100 were a purposive sample. They were likely to provide relevant data due to this high likelihood of exhibiting combinations between commercial and responsibility-sustainability.

The purposive nature of the sample went beyond its inclusion of particular corporations. The initial rationale for selecting the FTSE100 was an opportunity I perceived in this unique, novel source of data. It related to a recent regulatory change. The FTSE100 corporations' reporting requirements had changed in late 2013. The annual reports now had to include an explicit 'description of the business model' of the corporation. This description was meant to provide the 'context for the annual report as a cohesive document' (FRC, 2012, p. 21). The requirement for the business model to embrace the whole report created a setting where these commercial business models were likely to include responsibility-sustainability elements. Most of the FTSE100 already included a dedicated responsibility-sustainability section into their annual reports.

<sup>&</sup>lt;sup>8</sup> Paper 4 of this thesis includes a more extensive discussion of changes that had led to the inclusion of responsibility-sustainability and business model descriptions into the FTSE100 annual reports.

Accordingly, if the business model description was to represent the whole report as a 'cohesive document', these responsibility-sustainability sections were likely to be covered in it. This made the business model descriptions in these reports a likely space for combining commercial and responsibility-sustainability. The limited space available for these business model descriptions created additional pressure to combine corporations' commercial elements with the ones of responsibility-sustainability.

Beyond the purposive nature of the sample, it also was a convenience sample as the FTSE100 reports were publicly available information that could be downloaded from corporate websites.

## Analysis and Framework Development

The framework presented above through its literature basis was developed through the method of thematic template analysis (King, 2004; King, 2013). It involved both induction from the FTSE100 business model description data and deduction from the literature. Thematic template analysis was used for both framework development and for answering the research questions.

It brings together two methods. First, thematic analysis identifies patterns, called themes, in data (Boyatzis, 1998; Braun & Clarke, 2006). Secondly, template analysis organizes such themes into a coherent structure called a template which can be used for framework development (Crabtree & Miller, 1999).

The method has been recommended for large and heterogeneous amounts of textual data just as the data from the FTSE100 business model descriptions (Waring & Wainwright, 2008). Thematic template analysis has been recommended to increases the rigor of qualitative research (Fereday & Muir-Cochrane, 2006). A central feature of thematic template analysis is its theorizing through recurrent rounds of induction and deduction. It is a 'hybrid approach of inductive and deductive coding' (Fereday & Muir-Cochrane, 2006, p. 80). Both, literature and data are juxtaposed recurrently and iteratively. This process leads to constructing a final template that represents both data and literature. I will now illustrate how the method was applied in four stages, adapted from Fereday and Muir-Cochrane (2006):

The first stage is *data exploration*. During the *'initial exploration of data'* (Crabtree & Miller, 1999, p. 167) a weakly structured, inductive pre-coding is conducted. It serves to create an intuitive appreciation of what is in the data. This step serves the goal

of finding in the data initial inductive codes and/or detecting the presence of relevant concepts from the literature. Kingfisher, together with six similar FTSE100 corporations that showed signs of combination were included in a pilot coding phase. During this phase the corporations' business models were explored inductively. Themes in the data were compared with the business model and institutional logics literatures. In the process, I perceived subsections of the data to relate strongly to the literature on institutional logics and business models. Data exploration is also used to extract relevant datasets out of the complete corpus (Braun & Clarke, 2006). I identified and extracted the business model descriptions of all FTSE100 corporations from the annual reports published in 2014 for further analysis.

The second stage is the development of the *initial template*. Themes identified in stage 1 were grouped into an initial template for coding. In thematic analysis, template themes may be deducted from literature (matching themes observed in data with known theoretical concepts) (Lambert & O'Halloran, 2008), inductively (salient themes from data) (Pehlke, et al., 2009) or both (Fereday & Muir-Cochrane, 2006; Waring & Wainwright, 2008). I chose to deductively use themes from the literature that matched what I had seen during data exploration (first method). Coupling institutional logics and business model alignment between control and value elements had been perceived in the data. These literatures were now used to deductively build an initial template from the literature. This template was used for the analysis of all of the FTSE100 business model devices. It consisted of four types of business model elements, responsibility-sustainability control [RSC], and value [RSV] as well as commercial control [CoC] and value [CoV]. These represent the 'boxes' in the framework (Figure P3. 1).

During the third stage of *coding and template revision*, all relevant data for answering the research questions was coded. During this coding initial themes were modified to reflect the data structure (King, 2004). The process was continuous and ran through two recurrent iterative coding rounds (Vaismoradi, et al., 2013). During the revision stage, further matches with literature can be made to further qualify the template (Lambert & O'Halloran, 2008). I did so between the first and second coding round.

Customers DIY, DFM, Recruitment, retention, Trade training, diversity **Products** Channels Innovation, affordability Generates Stores, online, mobile, call centres, catalogues, quality, own brands, sourcing, Strategy: Creating the Leader Improve, modernise and expand for long-term success and to become Net Positive: Maximising sales BETTER HOMES, **BETTER LIVES** Minimising costs Value for the business: Sourcing, Brand preference cost Cash retained for a strong productivity \_\_\_\_balance\_sheet\_\_\_\_ 'Licence to operate' long term **▲** Generates ▼ Generates Value Value for shareholders: Value for customers: Value for society: Relevant, better, sustainable Creating employment and a Healthy annual dividend and and affordable products brighter future for our people, commitment to return surplus the environment and wider capital when appropriate and services communities Creating a flice Creating brand preference Legend Responsibility-Coupling Commercial sustainability [RQ2] element [RQ1] element [RQ1]

Figure P3. 2 Data Coding Example: Kingfisher's Business Model Visual

The first coding round was aimed at answering the first research question on the prevalence of combinations in the FTSE100 business model descriptions. It identified commercial and responsibility-sustainability elements. The business model descriptions were reviewed, using line-by-line in-vivo coding (Glaser & Strauss, 2012 [1967]; Saldaña,

2012). Through this method elements were identified that were primarily commercial or primarily responsibility-sustainability. This coding cycle resulted in 1576 codes of commercial elements and 485 codes of responsibility-sustainability elements (see coding example in Figure P3. 2). These elements were then classified as either value elements such as 'value for society, value for shareholders, and value for customers', or control elements, such as 'minimizing costs' and 'creating employment', means for achieving the value elements. These two coding steps led to FTSE100 data organized under the business model elements identified earlier [CoC, CoV; RSC; RSV]. The prevalence of these elements across corporations is described in Table P3. 1 in the findings section. It answers the first research question.

The second coding round was aimed at answering the second research question. The first coding round had helped to understand which corporations had both commercial and responsibility-sustainability elements. However, it did not explain how these elements were combined. The concepts of 'coupling' of elements from differing institutional logics and of 'alignment' of control and value elements were used for the second coding round. The original template, which only had consisted of four 'boxes' [CoC, CoV; RSC; RSV], was revised. It now included the 'arrows' that describe combination between the elements in the boxes, the six combination mechanisms [I-VI]. During the coding, instances were identified where the four types of business model elements found in the first coding round, were combined. As an example, in the upper left corner of Kingfisher's business model description (Figure P3. 2) the commercial value element [CoV] 'long term success' had been coupled with the social value element [RSV] 'becoming net positive'. Interpreted through the conceptual framework, this qualifies as the 'coupled value' mechanism [II]. Another example is Kingfisher's 'value for customers' element [CoV]. One of the means through which it is to be achieved is 'sustainable products and services' [RSC]. Accordingly, elements had been combined through the mechanism of 'social control for commercial value' [VI]. This mechanism relies on processes of both coupling and alignment. Overall, 85 such statements of combination mechanisms were identified. Eighteen exemplary statements are summarized in Table P3. 2 to further qualify the six combination mechanisms through primary data.

The fourth and last stage is *template finalization*. The developed template was a structure of several interrelated themes which represent the elements of the conceptual framework. A template can be considered final if all relevant data has been included into

the coding and when the codes have been refined multiple times (King, 2004). My final template included the four business model elements [CoC, CoV; RSC; RSV] and the six combination mechanisms [I-VI]. This template had been shaped through feedback received from four presentations and paper development workshops.<sup>9</sup>

Feedback led to refinements, both in the use of theory and in the use of data under the themes. I had originally presented the framework as one of 'hybridization'.

Hybridization was also present in several of the template themes. It was suggested during presentations that this misrepresented the empirical context of the FTSE100. Commercial corporations were perceived as a very distinct context to the hybrid organizations context of social enterprise. However, the concept of combination I had used as part of the template from the beginning, worked well in the corporate context. The template was adjusted to replace hybridization by foregrounding combination. During the presentations several comments were received about the match between primary data and the themes used to represent them. Themes and data were refined based on several of these comments. Revisions were documented in a coding diary, and re-organized with the qualitative analysis software NVivo.

# **Findings**

The following findings are presented in order of the two research questions. The first section shows that the combination of commercial and responsibility-sustainability in business model descriptions has become a common phenomenon among the FTSE100. It also shows four different combination profiles observed among these corporations. These two findings address the first research question concerned with the prevalence of combined business model descriptions. The second section shows how the six business model combination mechanisms presented earlier are grounded in the FTSE100 data. All six combination mechanisms could be qualified further through the analysis of the FTSE100 business model descriptions. It addresses the second question aimed at the mechanisms through which combined business model devices are constructed. This section will also illustrate the empirical part of the thematic analysis that had led to the development of the framework of combination mechanisms.

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<sup>&</sup>lt;sup>9</sup> Feedback received from the following presentations was used for refinement of the coding: Manchester Institute of Innovation Research (19<sup>th</sup> of November, 2014); Innovation for Sustainability Network meeting Ghent (29<sup>th</sup> of May 2015); AOM pre-workshop Vancouver (6<sup>th</sup> of August 2015); EGADE business school faculty presentation (28<sup>th</sup> of January 2016).

Prevalence and Profiles of Business Model Combinations among the FTSE100 [RQ1] The first research question was aimed at exploring how common business model combination was among FTSE100 corporations. All of the 96<sup>10</sup> business model descriptions analyzed showed commercial elements. This is not further surprising as they are the business model devices of commercial corporations. The more interesting question is how many of these corporations also included responsibility-sustainability control and value elements and in what combination. I found four distinct profiles of business model combination (see Table P3. 1), which will now be illustrated.

Table P3. 1 Prevalence and Profiles of Business Model Combination across FTSE100

		Value el	ements
		Purely commercial	Combined
Control	Purely commercial	40 'Commercial-only'	6 'Implicitly combined'
elements	Combined	17 'Instrumentally combined'	33 'Fully combined'

Of the 96 business model devices analyzed, 40 did not describe any responsibility-sustainability elements. Their profile was one of purebred, 'commercial-only' business model devices. In contrast, thirty-three 'fully combined' business model devices showed commercial and responsibility-sustainability elements among both their value and control elements. Devices in the two other profiles were only partly combined. They had responsibility-sustainability in only one type of business model elements, either control or value.

The profile of 17 business models was 'instrumentally combined'. The devices included responsibility-sustainability control elements, such as 'meeting stakeholder expectations', or 'operating responsibly'. These control elements were aligned to create purely commercial value, such as 'shareholder value', or 'profitable growth'. These businesses model descriptions were called instrumental, as they applied responsibility-sustainability control elements, as means to create commercial value. Responsibility-sustainability was a means for commercial gain. Many of these corporations mentioned

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<sup>&</sup>lt;sup>10</sup> Four companies did not have business model descriptions that could be analyzed (see Table P3. 3 in the appendix).

corporate responsibility-sustainability, as a means to achieve their commercial 'license to operate'. 11

The smallest group of 6 devices displayed the opposite situation to the previous group. They embedded responsibility-sustainability among their value elements, but not among control elements. One might assume that corporations with this profile had high goals (responsibility-sustainability value elements), but did not act upon them (social control elements). However, a closer look at these business model devices created a distinct impression. Most corporations in the group described a strong social purpose such as education (Pearsons); insurance of social risks (Legal & General, RSA Insurance); families' financial stability (Barclay's); and community infrastructure development (Taylor Wimpey). They described how they *implicitly* contributed to these social goals through their 'normal' commercial control elements. This led to the group description as 'implicitly combined'. Apparently, these corporations created their responsibility-sustainability value implicitly through the commercial elements of their business models. They did not rely on additional responsibility-sustainability control elements.

The above findings must be interpreted with caution. The profiles should not be interpreted as a fair representation of the actual enactment of corporations' business models. The analysis was not meant to make a statement about the actual 'achievement' of these corporations in acting responsibly or sustainably. It is an attempt to create an appreciation of the distinct profiles of devices corporations have constructed. On the one hand, when interpreting these findings, one also needs to keep in mind that they are based on self-representations of the corporations towards their owners and potential investors. This makes a desirability bias likely. On the other hand, FTSE100 annual reports are highly regulated, controlled and scrutinized, which increases the likelihood of fair representation. Question about the fairness of representations of the enacted business models are discussed in greater depth in Paper 4.

In summary, the main answer to the first research question is that a majority of the FTSE100 business model devices showed signs of combining commercial and responsibility-sustainability elements. We have observed four distinct profiles among the

<sup>&</sup>lt;sup>11</sup> Combination here does not imply a judgment of the depth or degree to which value elements and control elements were combined with responsibility-sustainability elements. Several *'fully combined'* business models had a very small number, sometimes with a single occurrence of responsibility-sustainability in their control or value elements.

<sup>&</sup>lt;sup>12</sup> Carphone Warehouse in the 'implicitly combined' profile sticks out as its contribution to a social purpose through commercial activities is not as apparent as in the other corporations.

FTSE100 devices. These were 'commercial only' (purely commercial elements); 'fully combined' (combined value and control elements); implicitly combined (combined value, commercial control); and 'instrumentally combined' (combined control, commercial value).

Six Mechanisms of Business Model Combination [RQ2]

The second research question was aimed at studying the mechanisms through which combined business model devices were constructed. Among the FTSE100 business model devices the coupling and alignment of business model elements from commercial and social logic was a common phenomenon. The six mechanisms presented in the theoretical framework earlier on were very present in the data. The following description provides further empirical grounding of the mechanisms. It also provides a rich empirical insight into how individual corporations combined commercial and responsibility-sustainability (see Table P3. 2).

Table P3. 2 Combination Mechanisms across the FTSE100

Process	Mechanism	Exemplary codes
Simple alignment	I. Commercial alignment	'We incentivise our management at every level through a rigorous goal-setting process [CoC] that aligns the need for consistent improvement in profitability [CoV]' (SAB Miller)
		'To ensure management's focus is aligned with the interests of our shareholders [CoV], our KPIs (key performance indicators) are reflected in our management incentive schemes [CoC].' (British American Tobacco)
		'Our () partners in the business [CoC] are entitled to fair compensation for their contributions to business success [CoV].' (Anglo American)
-susta	Responsibility -sustainability	'To improve the quality of human life [RSV] by enabling people to do more, feel better, live longer, underpinned by our values [RSC].' (GSK)
	alignment	'To detect, deter and protect against financial crime [RSV] () starts with embedding our HSBC Values in everything we do [RSC].' (HSBC)
		'These values, to which we all aspire [RSV], can be summed up in one phrase: we do the right thing [RSC].' (GKN)
Simple coupling	III. Coupled value	'Deliver our obligations to shareholders [CoV] whilst meeting society's needs [RSV] in a responsive manner' (Barclay's)
		'Value for society [RSV], value for shareholders, value for customers [CoV]' (Kingfisher)

		'Solutions that are valued by our customers [CoV], optimise the use of natural resources, and enhance the quality of life for the people of the world [RSV]' (Johnson Matthey)
	IV. Coupled control	'The Balanced Scorecard is the final crucial piece of our plan [CoC] – alongside our Purpose and Values – to embed the right culture in our business [RSC]' (Barclay's)
		'Sound principles governing safety [CoC]; business conduct; and social, environmental and economic practices are integral to our business [RSC].' (Mondi)
		'Our performance-based reward structure [CoC] recognises those who have delivered results and have the right values for our business [RSC].' (Unilever)
Coupling- alignment	V. Commercial control for responsibility- sustainability value  VI. Responsibility -sustainability control for commercial value	'The Group seeks to maximise social and environmental value [RSV] through the design of its projects [CoC]' (Antofagasta)
		'Benchmarking [CoC] the Group's environmental performance (in water and GHG emissions) [RSV] against other mining companies' (Fresnillo)
		'Use a business scorecard [CoC] to measure the Group, business unit and asset performance against our objective of sustainable [stakeholder] value creation [RSV]'. (Anglo American)
		'High standards of business ethics [RSC] () that have helped us to become a market-leading () business [CoV].' (GKN)
		'Our values and the positive behaviours [RSC] that drive our business performance [CoV]' (Unilever)
		'Our philosophy of genuine partnership [RSC] means Randgold has become firmly entrenched in the economies of our host countries [CoV].'(Randgold)

Mechanisms based on the process of 'simple alignment' existed between value elements and control elements of the same type. Through the mechanism of commercial alignment [I], commercial control mechanisms and commercial value were mutually aligned. A good example is SAB Miller. They explained how control mechanisms of 'rigorous goal setting' and 'financial incentivisation' were aligned with the commercial value of 'improvement in profitability'. We would expect this mechanism in any well-functioning commercial corporation. However, such alignment mechanisms are not enough in corporations with a strong embedding of responsibility-sustainability in the business model device. In such corporations, there is an additional need to align responsibility-sustainability value with the

governance elements for their achievement. This creates the case for a second simple alignment mechanism. The mechanism of 'responsibility-sustainability alignment' [II] happened between responsibility-sustainability control and value elements. It aligns responsibility-sustainability value elements, with responsibility-sustainability control elements. One example for such a mechanism is HSBC, who aligned the responsibility-sustainability value to 'protect against financial crime', with the responsibility-sustainability control element of 'embedding values into everything'. In the case of these two simple alignment mechanisms, combination between elements of commercial and responsibility-sustainability logics was absent. However, they were included in the combination mechanisms. The rationale is that the mere co-existence of commercial alignment and responsibility-sustainability alignment creates a form of combination on device level. Both mechanisms lead to combination in the device, when taken together.

Simple coupling processes couple elements of the same type (control with control, value with value) from commercial and responsibility-sustainability. For instance, Kingfisher's business model device included 'value for society, value for shareholders, value for customers'. Creating value for shareholders and value for customers are typical commercial value elements. Value for society, however, is a responsibility-sustainability value element. The device described what the corporation meant with 'value for society', as 'creating employment and a brighter future for our people, the environment and wider communities'. All three value elements came together through the mechanism of coupled value [III]. Together they were the value proposition of Kingfisher's business model device. The mechanism of coupled control [IV] couples commercial control elements with responsibility-sustainability control elements. For instance, Barclay's coupled typical responsibility-sustainability control mechanisms ('values and culture'), with the balanced scorecard as a typical commercial control element.

The third group of mechanisms is based on entangled 'coupling-alignment' processes. Commercial control elements are aligned with responsibility-sustainability value elements and vice versa. The mechanism of commercial control for responsibility-sustainability value [V] aligns commercial control elements with responsibility-sustainability value elements. A good example is Fresnillo, who used the commercial control element benchmarking, to keep track of their 'environmental performance', a responsibility-sustainability value element. Conversely, the mechanism of responsibility-sustainability control for commercial value [VI] aligns responsibility-sustainability control

elements with commercial value elements. An example is GKN who referred to their high ethical standards, a responsibility-sustainability control element, as a means to the end of maintaining market leadership, a commercial value element.

#### **Conclusions and Discussions**

This paper has explored the phenomenon of combination between commercial and responsibility-sustainability in business model devices. I have conducted a thematic analysis of the FTSE100 business model devices. The result is a framework of combination mechanisms. The framework is based on the institutional logics and business model literatures. It is also grounded empirically in the business model devices of the FTSE100 corporations.

A first finding is that business model combination was a common phenomenon among the FTSE100s' business model devices. Fifty-six out of 96 corporations analyzed, combined commercial and responsibility-sustainability elements in their devices. I have also found six mechanisms of business model combination. The mechanisms brings together business model control and value elements related to commercial and responsibility-sustainability. The mechanisms are commercial alignment [I], responsibility-sustainability alignment [II], combined value [III], combined control [IV], commercial control for responsibility-sustainability value [V] and responsibility-sustainability control for commercial value [VI].

As discussed earlier, the self-reported nature of the data that the findings are based on, may be criticized. However, the analysis conducted did not depend on the fair representation of an enacted business model. It was focused on devices and on the mechanisms through which they were constructed.

From Hybrid Organizations to Corporate Responsibility-Sustainability

The findings contribute to the discussion around organizations' responses to prescriptions from multiple institutional logics. This discussion is currently centred on the hybrid organizations context, which in turn is anchored in the empirical context of social enterprises (Battilana & Lee, 2014; Jay, 2013; Mair, et al., 2015; Pache & Santos, 2013). This bias of the literature focusing on social enterprises as hybrid organizations has been criticized. It had been suggested to explore less 'extreme cases' of hybridity than the one of social enterprises such as the one of 'corporations that engage in CSR' (Battilana & Lee, 2014, p. 425). This paper contributes to this emerging literature by studying responses to

commercial and responsibility-sustainability prescriptions in the context of corporate responsibility-sustainability initiatives. The six combination mechanisms provide a first insight into corporations' responses to the institutional complexity resulting from the embedding of responsibility-sustainability into commercial structures such as the business model devices.

### Combined Logics of Alternative Business Models

Combinations of elements from multiple institutional logics in business models are most likely not only a phenomenon in the context of corporate responsibility-sustainability. Such combination may also be of high relevance, for the discussion around alternative business models. This literature includes business models that are sustainability-oriented (Bocken, et al., 2014; Boons & Lüdeke-Freund, 2013; Schaltegger, et al., 2012; Stubbs & Cocklin, 2008); social enterprises (Darby & Jenkins, 2006; Seelos & Mair, 2005; Yunus, et al., 2010); family (Adendorff, 2004; Chirico, 2007; Rau, 2013); faith-based (Beck, et al., 2013; Fry, et al., 2010); or public sector (Glover, 1998; Osborne, et al., 2014; Yu & Janssen, 2010). All of these business models are likely to share both commercial elements and others related to distinct institutional logics. Such logics may be the ones of sustainability, social welfare, family, faith or the government. The analysis conducted in this paper of how such institutional logics come together in one business model appears relevant to this literature. The conceptual and methodological repertoire of institutional logics may enable new answers to old questions or entirely new questions about these alternative business models.

### Easing or Increasing Tensions in Responsibility-Sustainability?

In Paper 2 of this thesis I had suggested that distinct types of business models are influenced by distinct institutional logics. I had identified a set of tensions between, the commercial and sustainability logics visible in the literature. In this paper, I have translated these insights from the literature to application in the empirical context of the FTSE100 corporations. We have seen how distinct logics are blended by combining elements from multiple logics in a business model device. The tensions theorized from the literature are likely to play out in the constructed business model devices as they embed responsibility-sustainability. The corporate sustainability literature has begun to explore tensions resulting from competing environmental, social, and economic priorities in the implementation of corporate sustainability (Hahn, et al., 2010; Hahn, et al., 2014a; Hahn,

et al., 2015; Van der Byl & Slawinski, 2015). Also, there are inherent tensions between corporate social responsibility and the institutional logics of capitalism (Jones, 1996).

Devices may be one space in which to respond to such tensions. The combination of elements from distinct institutional logics, commercial, responsibility, sustainability, may be understood as a mechanism for easing such tensions. Much of the hybrid organizations literature takes this perspective of easing tensions through combination (Jay, 2013; Mair, et al., 2015; Pache & Santos, 2013). A second interpretation of the response is one where the combination of distinct institutional logics actually increases tensions. This is the stance assumed in the larger thesis this paper is a part of. As Battilana and Lee (2014, p. 398) suggest the combinations of logics may lead to a setting 'resulting in internal and external tensions'. I suggest that in the context of business model change for responsibility-sustainability, the combination of commercial and responsibilitysustainability logics, may lead to what is known as 'productive tensions' (Battilana, et al., 2015). These can be understood from the angle of paradoxical management in the business model and responsibility-sustainability context (Hahn, et al., 2014b; Smith, et al., 2010; Smith & Lewis, 2011; Van der Byl & Slawinski, 2015). The tensions may be embraced to fuel business model innovation and change (Smith & Tushman, 2005) towards the embedding of responsibility-sustainability into business models.

### Logic Prescription-Inscription-Description

In this paper we have seen how 'prescriptions' from distinct institutional logics resulted in responses that changed the elements of business model devices (Greenwood, et al., 2011). Through the combination of elements, people constructing the device had 'inscribed' elements from distinct logics into them (Akrich & Latour, 1992). These unique combinations of elements in each device, in turn 'described' new business model logics (Doganova & Eyquem-Renault, 2009). They describe a blended commercial and responsibility-sustainability logic of doing business, very distinct from the purely commercial logic before that combination had happened. One could argue that this chain of transformation of logics is a process of business model change. In this process the prescription of institutional logics are a driver for change; the inscription into business model devices is the material act of change; and the new blended value logic described by the device is the result. These observations relate to the discussions of logics from varying angles, including that of institutional logics, device inscription and business model logics. This point will be taken up again in Paper 4.

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### Appendix

**Table P3. 3 Companies Included and Characteristics of Device Elements** 

FTSE	Name	Control	Value	Combination
rank	rume	elements	elements	profile
1	Royal Dutch Shell	Commercial	Commercial	Commercial only
2	HSBC Holdings	Combined	Commercial	Instrumentally combined
3	ВР	Combined	Combined	Fully combined
4	GlaxoSmithKline	Combined	Combined	Fully combined
5	British American Tobacco	Combined	Combined	Fully combined
6	AstraZeneca	Combined	Combined	Fully combined
7	SABMiller	Combined	Commercial	Instrumentally combined
8	Lloyds Banking Group	Combined	Combined	Fully combined
9	Vodafone Group	Combined	Combined	Fully combined
10	Glencore Xstrata	Commercial	Commercial	Commercial only
11	Diageo	Combined	Commercial	Instrumentally combined
12	Rio Tinto	Combined	Combined	Fully combined
13	BG Group	Commercial	Commercial	Commercial only
14	Reckitt Benckiser Group	No data	No data	No description
15	Barclays	Commercial	Combined	Implicitly combined
16	BHP Billiton	Combined	Commercial	Instrumentally combined
17	Prudential	Combined	Combined	Fully combined
18	National Grid	Combined	Commercial	Instrumentally combined
19	Unilever	Combined	Combined	Fully combined
20	Shire	Combined	Combined	Fully combined
21	BT Group	Commercial	Combined	Implicitly combined
22	Standard Chartered	Commercial	Commercial	Commercial only
23	Imperial Tobacco Group	Combined	Commercial	Instrumentally combined
24	Royal Bank of Scotland Group	Commercial	Commercial	Commercial only
25	Associated British Foods	Commercial	Commercial	Commercial only
26	Anglo American	Combined	Combined	Fully combined
27	Rolls-Royce Group	Commercial	Commercial	Commercial only
28	Compass Group	Combined	Combined	Fully combined
29	WPP Group	No data	No data	No description
30	Aviva	Commercial	Commercial	Commercial only
31	Centrica	Combined	Combined	Fully combined
32	British Sky Broadcasting Group	Combined	Combined	Fully combined
33	Tesco	Combined	Commercial	Instrumentally combined
34	SSE	Combined	Commercial	Instrumentally combined
35	BAE Systems	Combined	Commercial	Instrumentally combined
36	Legal & General Group	Commercial	Combined	Implicitly combined
37	ARM Holdings	Commercial	Commercial	Commercial only
38	Reed Elsevier	Commercial	Commercial	Commercial only
39	CRH	Commercial	Commercial	Commercial only

40	Pearson	Commercial	Combined	Implicitly combined
41	Next	Commercial	Commercial	Commercial only
42	Standard Life	Commercial	Commercial	Commercial only
43	Experian	Commercial	Commercial	Commercial only
44	Smith & Nephew	Commercial	Commercial	Commercial only
45	Old Mutual	Combined	Combined	Fully combined
46	Wolseley	Commercial	Commercial	Commercial only
47	ITV	Commercial	Commercial	Commercial only
48	Land Securities Group	Combined	Combined	Fully combined
49	Capita Group	Combined	Combined	Fully combined
50	Kingfisher	Combined	Combined	Fully combined
51	Whitbread	Combined	Combined	Fully combined
52	International Consolidated	Commercial	Commercial	Commercial only
	Airlines Group SA			•
53	British Land Co	Combined	Combined	Fully combined
54	Antofagasta	Combined	Commercial	Instrumentally combined
55	Burberry Group	Combined	Combined	Fully combined
56	Marks & Spencer Group	Combined	Combined	Fully combined
57	London Stock Exchange Group	Commercial	Commercial	Commercial only
58	Schroders	Commercial	Commercial	Commercial only
59	Johnson Matthey	Combined	Combined	Fully combined
60	Tullow Oil	Combined	Combined	Fully combined
61	easyJet	Combined	Commercial	Instrumentally combined
62	InterContinental Hotels Group	Combined	Combined	Fully combined
63	Fresnillo	Combined	Combined	Fully combined
64	United Utilities Group	Combined	Combined	Fully combined
65	Babcock International Group	Commercial	Commercial	Commercial only
66	Bunzl	Commercial	Commercial	Commercial only
67	Weir Group	Commercial	Commercial	Commercial only
68	Carnival	No data	No data	No description
69	Aberdeen Asset Management	Commercial	Commercial	Commercial only
70	Ashtead Group	Commercial	Commercial	Commercial only
71	GKN	Combined	Combined	Fully combined
72	Smiths Group	Combined	Commercial	Instrumentally combined
73	RSA Insurance Group	Commercial	Combined	Implicitly combined
74	Coca-Cola HBC AG	Combined	Combined	Fully combined
75	Sainsbury (J)	Combined	Combined	Fully combined
76	Severn Trent	Commercial	Commercial	Commercial only
77	Hargreaves Lansdown	Commercial	Commercial	Commercial only
78	TUI Travel	Commercial	Commercial	Commercial only
79	Direct Line Insurance Group	Commercial	Commercial	Commercial only
		Commercial	Commercial	Commercial only
80	Friends Life Group Ltd	Commerciai	Commerciai	Commercial only
80 81	Friends Life Group Ltd Intu Properties	Combined	Combined	Fully combined
				<u> </u>

84	Travis Perkins	Combined	Commercial	Instrumentally combined
85	Hammerson	Combined	Commercial	Instrumentally combined
86	Persimmon	Commercial	Commercial	Commercial only
87	Aggreko	Commercial	Commercial	Commercial only
88	Sage Group	Commercial	Commercial	Commercial only
89	Morrison (Wm) Supermarkets	Combined	Combined	Fully combined
90	Royal Mail Group	Commercial	Commercial	Commercial only
91	Barratt Developments	Commercial	Commercial	Commercial only
92	Randgold Resources Ltd	No data	No data	No description
93	G4S	Combined	Commercial	Instrumentally combined
94	St James's Place	Commercial	Commercial	Commercial only
95	3i Group	Commercial	Commercial	Commercial only
96	Mondi	Combined	Commercial	Instrumentally combined
97	Sports Direct International	Commercial	Commercial	Commercial only
98	Taylor Wimpey	Combined	Combined	Implicitly combined
99	Meggitt	Combined	Commercial	Instrumentally combined
100	Merlin Entertainments	Commercial	Commercial	Commercial only

### PAPER 4. THE TEXTUAL EMBEDDING OF RESPONSIBILITY-SUSTAINABILITY INTO DEVICES: EXPLORING FTSE100 BUSINESS MODEL DESCRIPTIONS

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Since 2014, companies listed in the FTSE Index are required to provide a description of their commercial business model in the annual report. I analyze such descriptions as business model devices. Many of the devices have corporate responsibility-sustainability<sup>1</sup> embedded into their texts. This chapter explores basic characteristics and the intensity of textual embedding. First, I identified themes of responsibility-sustainability cares (e.g. environment, employment, wellbeing) and of the functions of the business model that responsibility-sustainability was embedded in (i.e. value proposition, creation, exchange, capture). Thirty-nine of the FTSE100 had embedded responsibility-sustainability cares into the texts of their business model devices. Out of these, thirty-three also featured responsibility-sustainability elements in their visual model. I find that the FTSE100 had embedded responsibility-sustainability in the form of a variety of cares and positions. Secondly, the findings from the first step were quantified to develop an appreciation of the intensity of textual embedding across companies. Textual embedding is conceptualized as an act of 'inscription' that changes the business model logic 'described'. However, we cannot clearly appreciate 'enacted' business model from the textual descriptions. Further research into embedding responsibility-sustainability into the enactment of individual companies is required.

#### **Keywords**

business model device, corporate responsibility, corporate sustainability, embedding, annual reports, FTSE

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<sup>&</sup>lt;sup>1</sup> The term responsibility-sustainability is meant to capture the entangled nature of both topics.

Introduction: Responsibility-Sustainability Cares in Business Model Descriptions

'Sustainable living' [C36]<sup>2</sup>, 'local employment' [C2], or 'biodiversity' [C10]- what kinds of organizations would typically signal to care about such topics? NGOs, possibly governmental agencies? The counter-intuitive answer in the context of this chapter: It is FTSE100, some of the largest commercial corporations worldwide. They have made these cares part of their responsibility-sustainability programs. The particular corporations communicating to care about these topics are Unilever [C36], Astra Zeneca [C2], and Coca Cola [C10]. Even more surprising might be that they and many more of their peers have embedded such cares into the texts of their business model descriptions<sup>3</sup> included in annual reports. Aren't business models typically about how companies make money? Aren't they about commercial concerns such as profit maximization or market leadership?

This chapter explores this intriguing phenomenon of embedding responsibility-sustainability into the texts of commercial business model descriptions among the FTSE100 companies. The analysis is grounded in a unique dataset and a promising timing. Recent requirements for inclusion into the London Stock Exchange have forced FTSE100 companies to include both business model descriptions and responsibility-sustainability into their annual reports. This new requirement has made companies describe how their responsibility-sustainability programs fit into commercial business models. They have to combine them in one coherent model and to discuss this combination.

First, I will briefly ground this phenomenon in the literature. Then the role of the FTSE Index and of the London Stock Exchange will be discussed as context of textual embedding. The main section then is dedicated to exploring what kind of responsibility-sustainability cares were embedded into the texts of which business model function. The last section develops a measure for the intensity of companies' textual embedding efforts. It will be discussed what connections there may be between embedding responsibility-sustainability and business model change.

<sup>2</sup> Vignettes such as [C36] refer to companies in the study. Table P4. 3 in the appendix is a full list of corporations and vignettes.

<sup>&</sup>lt;sup>3</sup> I refer to business model 'descriptions' to express the difference between business models enacted by a company and their textual-visual description. The last section of this chapter provides a discussion of business model change, involving business model descriptions, the logics inscribed into them and companies enacted business model.

#### **Embedding Responsibility-Sustainability into Business Model Description Texts**

This first section provides an appreciation of the conceptual framework behind the analysis of responsibility-sustainability embedding into business models. This includes a brief introduction to business model thinking and of its connection to responsibility-sustainability.

Inscription of Business Model Devices and Description of Business Model Logics

What are business models and how can a textual-visual description like the one of the

FTSE100 'be' a business model? Business models are understood as companies' value
logics (Abdelkafi & Täuscher, 2016; Casadesus-Masanell & Ricart, 2010; George & Bock,
2011; Johnson, et al., 2008; Magretta, 2002; Zott, et al., 2011). These logics include
commercial interests such as the realization of competitive advantage (Mitchell & Coles,
2003); capturing economic value (Chesbrough & Rosenbloom, 2002); making profit
(Johnson, et al., 2008); or the commercialization of products and technologies
(Gambardella & McGahan, 2010). The business model is therefore commonly considered
the 'economic logic of the business'. It ultimately answers the question 'how do we make
money?' (Magretta, 2002, p. 4). As Teece (2010, p. 172) states 'the essence of a business
model is in defining the manner by which the enterprise delivers value to customers,
entices customers to pay for value, and converts those payments to profit.' Throughout this
chapter, I will call this the 'commercial' logic.

Business model logics are also 'inscribed' into a variety of business model 'devices', such as power-point presentations, websites, business plans or products (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). The FTSE100 business model description texts explored in this chapter are one type of such devices. The creators of these devices have constructed them by 'inscribing' certain elements, commercial and responsibility-sustainability, into them (Akrich, 1992; Akrich & Latour, 1992). In this process of inscription, they have combined commercial and responsibility-sustainability elements in these texts. These 'inscriptions' together form and 'describe' a unique business model logic for each company.

Also, the business model is *enacted* by companies' actor-networks (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). The business model logic *described* by the device may match the enacted business model logic to varying degrees. The

relationship between devices and their enactment will be discussed further in the last section of this chapter.

In summary, business models consist of their logics, devices and enactment. This means business model change holistically seen is change in logics, devices and/or enactment. The last section of this chapter will also discuss if embedding responsibility-sustainability embedding into devices may mean that business models as a whole have changed.

Characteristics of Embedding: Cares and Positions

How do companies embed responsibility-sustainability into their commercial business models? An emerging literature studies the phenomenon as embedding of environmental sustainability (Birkin, et al., 2009a; 2009b; Bocken, et al., 2014; Boons & Lüdeke-Freund, 2013; Stubbs & Cocklin, 2008), and social responsibility (Grassl, 2012; Müller, 2012; Slack, 2012; Yunus, et al., 2010) into business models. However, the above examples from the FTSE100 do not only reflect the academic high-level conceptual understandings of social responsibility and environmental sustainability, but also particular lower-level responsibility-sustainability cares such as the ones mentioned in the introduction ('sustainable living' [C36], 'local employment' [C2], 'biodiversity' [C10]).

The first characteristic of embedding studied in this chapter is the responsibility-sustainability cares embedded. In Paper 1 (Randles & Laasch, 2016) of this thesis we had proposed to move away from the focus on high-level concepts like corporate responsibility and sustainability. Instead, we analyze the multiple responsibility-sustainability cares, as they are actually embedded into business models. This then leads to a variety of business model types oriented towards particular cares, such as business models for poverty alleviation (Seelos & Mair, 2005), responsible banking (Pirson, 2012), ethical consumption (Sebastiani, et al., 2012), or for humanistic ideals (Laasch, et al., 2015). Similarly, also the three FTSE companies mentioned above communicate that their business models have the cares of 'sustainable living', 'local employment', and 'biodiversity' embedded. In the analysis of the business models we will explore the themes of such cares embedded by the FTSE100.

The second characteristic is *where* responsibility-sustainability is embedded into the descriptions. Their position answers questions such as: 'How does responsibility-sustainability relate to the (commercially driven) rest of the model?' 'Is it found widely

across the model or only in isolated positions?' Baden-Fuller and Morgan (2010) suggest that companies' logics of doing business may be represented through a variety of models. The FTSE100 used a wide variety of distinct model types, such as input-output figures, flow charts, onion models, value chain models and infographics. Each model type opens up an array of distinct positions into whose texts responsibility-sustainability elements could be embedded in. Given this variety, we cannot identify pre-fixed positions for all of these models' distinct graphical-visual representations. However, there are constitutive functions of business model logics that repeat across model types. These functions are value proposition, creation, exchange and capture (Papers 2, 3). For instance, in an input-output figure, the function of value capture might be in the parts of the visual model representing outputs. A balance-sheet-type model might represent value capture as the 'bottom-line' in its lower section. So using business model functions enables us to compare positions across distinct model types. As a basis for the analysis I will now briefly outline the functions based on Paper 2 of this thesis:

- Value Proposition describes what kind of value should be offered to whom in
  order to satisfy or create demand. Elements typically associated with the value
  proposition are products and services, design, innovation, customers, users,
  beneficiary, market, customer profile, value, benefit, and output. Often the
  activities of marketing, product and service design are closely related the
  proposition.
- 2. Value Creation elements are involved in creating the proposed value. This includes operational processes, governance mechanisms, norms, roles, metrics, actors, suppliers, partners, capabilities, competences, resources, assets, structure, infrastructure and organizational architecture. Often the activities of organizational structuring and governance and operations management relate to value creation.
- 3. Value exchange elements influence how value is exchanged between the company and its stakeholders. It includes distribution channels, logistical streams, customer/market segments, the value network, customer interface/relationships, partnerships, brands, service and loyalty. Customer relationship management, service, and outbound logistics are typically associated with exchange.
- Value capture covers elements for retaining and maintaining value, including financial aspects, capital, costs, pricing, sources of revenue, profit formula, margin,

shareholder value, making money and value added for various stakeholders. Often finance and accounting are associated with capture.

The positioning of a particular responsibility-sustainability care in one or another of these functions matters. For instance, the care of 'social inclusion' in the value proposition may lead to products for low-income consumers; in value creation to a human resources diversity policy; in exchange to avoid marginalizing particular consumer groups through distribution; and in value capture it might lead to efforts to ensure fairness in who receives the value captured.

### **Context of Textual Embedding: The FTSE Index and the London Stock Exchange**

I will now describe the institutional context of the FTSE100 companies' textual embedding of responsibility-sustainability into their business model descriptions. A main role is played by the FTSE Index and by the London Stock Exchange. They demand the inclusion of a business model description and of responsibility-sustainability into annual reports from the companies studied.

The FTSE100 is a list of the most valuable 100 companies listed in the London Stock Exchange (LSE), evaluated by their market capitalization. In order to be listed at the stock exchange, all companies have to comply with 'continuing obligations', one of them being the requirement for an annual report (LSE, 2010). Companies, on the one hand, benefit from being listed by accessing investor capital. Investors, on the other hand, can be confident that listed companies comply with the continuing obligations, which in turn makes them a likely better investment than unlisted companies (LSE, 2015).

This institutional infrastructure established by FTSE and LSE plaid an important role in companies' disclosure of their business models. Through the Companies Act of 2006, annual reports had to include a strategic report section. Since September 2013, this section had to include additional elements, one of them being a description of the company's business model. The Financial Reporting Council (FRC, 2012, p. 20), paraphrases the business model as 'what the company does' and suggests it may be connected to its goals ('what the company wants to achieve') and strategy ('how the business intends to achieve its objectives'). The reporting guidelines also suggest a basic understanding of what should be considered a business model (p. 21):

'The description of the entity's business model should set out how it **generates**or preserves value, and how it captures that value. It should describe, at a high

level, what the entity does and why it does it (ie what makes it different from, or the basis on which it competes with, its peers). (...) [It] should provide shareholders with an understanding of how the entity is structured, the market in which it operates, and how the entity engages with that market (eg what part of the value chain it operates in, its main products, services, customers and its distribution methods). It should also describe the nature of the relationships, resources and other inputs that are necessary for the successful continuation of the business.' [Emphasis added]<sup>4</sup>

The guidelines also suggest that 'a description of the business model provides the context for the annual report as a cohesive document.' For this chapter, this statement is particularly meaningful. The reason is that the strategic report also had to include elements related to responsibility-sustainability. As the business model description is meant to describe the annual report 'as a cohesive document', responsibility-sustainability elements were likely to be embedded into this description. These FTSE/LSE rules increasingly made the description of business models with embedded responsibility-sustainability a taken-for-granted part of annual reports.

The descriptions provided information with respect to how responsibility-sustainability relates to companies' business models. This in turn enabled stakeholders to act upon this newly available information, to attack or endorse the given description. As a result company representatives had an incentive to explicitly inquire into the nature of the relationship between responsibility-sustainability and their business models. During the reporting work, they were likely to reflect upon what their business model actually was (and should be). They would have been less likely to do this without the FTSE rules.<sup>5</sup>

In the last section of this paper I will discuss the relationship between the descriptions and the enacted business model. This leads us into a second important role of the FTSE/LSE institutional infrastructure. How fair a representation are these business model descriptions of the actually enacted business model? On the one hand, annual reports are primarily written with an investor audience in mind. Also they might be

<sup>&</sup>lt;sup>4</sup> The definition of business models given by the Financial Reporting Council (FRC) is likely to lead companies to prepare descriptions that are compatible with the academic understanding. As illustrated in the literature review, terms included in the definition are also central elements of what is understood to be part of a business model in academic terms. Terms like value creation and capture, and the inclusion of elements such as distribution, relationships, and resources are good examples.

<sup>&</sup>lt;sup>5</sup> In The Company (Papers 5-7) I was able to observe first-hand how executives redesigned their business model along the lines of what I describe above.

prepared by external consultancies. How may these two points influence to what degree the descriptions reflect the enacted business model? The writing for an investor audience might lead to a skewed description of the business. It might overemphasize the aspects deemed to be attractive to investors. The preparation by external consultants, might lead to business model descriptions that do not represent the business model enactment as well as it might be known by an internal observer. Also, consultants might work on several reports, possibly even at the same time. They may transfer standardized elements from one report to another. This in turn might lead to generic descriptions with less explanatory power about each individual model.

On the other hand, the reporting regulations have powerful mechanisms built in to ensure fairness of representation (FRC, 2012). Mechanisms may mitigate the abovementioned risks of misrepresentation. Firstly, 'the strategic report [including the business model as a central part of it] should reflect the collective view of the company's directors' (p. 16). So an external consultant might not know enough about the internal workings of a company. However, the board of directors has to vow for the fairness of representation. Secondly, the 'strategic report should be fair, balanced and understandable' (p. 31). This thwarts the possibilities of tweaking contents in order to reflect what investors, might want to hear. The materiality principle of reporting is a legally binding accounting standard. It requires the inclusion of all material information and the omission of information that is not material. Only relevant information may be included. Thirdly, 'the strategic report should be concise' and 'the number of items disclosed as a result of these requirements will generally be relatively small' (p. 15).

In summary, the conciseness and materiality principles together steer companies towards focusing on the elements that they deem most important and representative to be included into the limited space available for business model description. This in turn increases the likelihood that descriptions fairly reflect the complexity-reduced value logic of businesses. However, we must also appreciate the potentially skewing influence that actors and institutions such as the FTSE100 regulations, external consultancies, and the LSE may have on this description. All in all, we can assume that the elements covered in business model descriptions are likely to be a fair, 'close-enough', albeit not perfect representation of the companies' enacted business models. This includes the description of business models and of responsibility-sustainability embedded into them.

#### Method

The phenomenon studied is the textual embedding of responsibility-sustainability into business model descriptions. The novelty of this phenomenon invites an explorative research design. It consists of two research questions:

**RQ1:** What cares do the FTSE100 embed into the texts of business model descriptions and into which positions is responsibility-sustainability embedded in the visuals describing business models? [Characteristics of embedding]

This first question is aimed at exploring basic characteristics of embedding by understanding what (cares) are embedded where (positions) in the business model descriptions. For presentation purposes, I will quantify the findings of cares and positions. These quantifications serve as basis for developing a measure of 'intensity' of textual embedding for the second research question:

**RQ2:** How does corporations' textual embedding vary in intensity and how may this intensity relate to business model change? [Intensity of textual embedding]

This second question is aimed at understanding differences in the effort and perceived degree of textual embedding (intensity) between corporations. The second part of the question leads into a discussion of the nature of relationship between the intensity of embedding and business model change as it may or may not be enacted.

I study these questions through a comparative study of FTSE100s' business model descriptions. The collection of FTSE100 companies represents a convenience sample. The reports were openly accessible online. Also, the standardized reporting enabled easy access to the data and comparability between corporations. It also was a purposive sample. The business model descriptions in annual reports were a promising new source of data. They were an opportunity to learn about my main research interest, the embedding of responsibility-sustainability into business models. This opportunity emerged through the institutional pressure created by the FTSE index to present responsibility-sustainability and business models together. This led to annual reports that explicitly embedded responsibility-sustainability into their business model descriptions.

Corporations were included in the analysis if their business model descriptions (textual and visual) had responsibility sustainability cares embedded. This led to thirty-nine applicable corporations to be analyzed. I applied two distinct units of analysis, the 'themes of cares' and the 'positions' of responsibility-sustainability elements'. Cares are instances

where a company stated to care about a responsibility-sustainability topic (e.g. climate change, gender diversity, or poverty). Responsibility-sustainability elements are a wider category covering any mentioning of an element of responsibility-sustainability in the business model descriptions (e.g. triple bottom line, ethics council, or a corporate responsibility program).

I present the findings regarding both units of analysis as *depth* and *breadth* of embedding. A corporation may embed a high total number of social cares in the description (depth of cares) and/or cover cares of many distinct themes (breadth of cares). It might embed a great total number of responsibility-sustainability elements into business model functions (depth in positions) and/or many responsibility-sustainability elements across distinct functions (breadth in positions). Depth and breadth are meant to establish a richer picture of the embedding characteristics as part of the explorative purpose of this research.

Coding and analysis for the first research question were realized in three stages based on the method of thematic template analysis method (Boyatzis, 1998; Braun & Clarke, 2006; King, 2004; Crabtree & Miller, 1999):

- Data selection: Inclusion decision of what texts/ visuals are analyzed and which of them included responsibility-sustainability cares. Thirty-nine companies included cares in text and/or visuals. Thirty-three companies included responsibilitysustainability elements in their visuals.
- 2. *Coding:* i) inductive development of cares themes ii) clustering of responsibility-sustainability elements found in one of the business model functions value proposition, creation, exchange, capture.
- 3. **Presentation:** The themes found were first presented as rich descriptions of the data (Table P4. 1, Table P4. 2). Complementarily, they were also described as complexity-reduced graphical representations quantitatively expressing variety in distinct cares and positions found (Figure P4. 1, Figure P4. 2).

The second research question was aimed at creating an appreciation of the intensity of corporations' textual embedding. Intensity here is an appreciation of the comparative embedding effort of corporations. The Cambridge Dictionary defines intensity as 'the quality of being felt strongly'. It is also described as 'concentration', a measure of density

per unit.<sup>6</sup> In the context of this chapter, intensity is understood as how 'strongly' the embedding of responsibility-sustainability might be felt by a reader of the text describing the business model. It also is the intensity with which the 'reporters' have embedded responsibility-sustainability into the business model description as a 'unit'.

Table P4. 3 and Table P4. 4 in the appendix include the data used for constructing the intensity measure. The overall intensity score (titled 'combined score of cares and positionalities' in Table P4. 4) is the sum of the measure for 'cares' and 'positions'. Each measure, for cares and positions is derived by multiplying their respective depth and breadth measure. To achieve equal weighting of cares and positions, the cares and position scores were normalized. The result is Figure P4. 3. It is a comparison of the intensities with which the 39 companies had embedded responsibility-sustainability into the texts of their business model descriptions. <sup>7</sup>

In both research questions I have quantified data to make the wealth of quantitative data more accessible for the reader. Sullivan (2005, p. 28) calls this a 'quasi-statistical' presentation method helpful when summarizing large amounts of heterogeneous data. Such strategies are often used in the context of qualitative thematic template analysis, my main coding method and for explorative research (Vaismoradi, et al., 2013).

#### Characteristics of Textual Embedding [Answer RQ1]

The first of our two explorative questions is aimed at studying the characteristics of embedding: 'What cares do the FTSE100 embed into the texts of business model descriptions and into which positions is responsibility-sustainability embedded in the visuals describing business models?' In the following two sections I will first present the distinct themes of cares and positions across companies. I will then show the variety in breadth and depth of average companies in the sample.

Variety of Embedded Responsibility-Sustainability Cares

The first half of the first research question asks for the type of responsibility-sustainability cares: 'What cares do the FTSE100 embed into the texts of business model descriptions...?'

<sup>&</sup>lt;sup>6</sup> http://dictionary.cambridge.org/dictionary/english/intensity

<sup>&</sup>lt;sup>7</sup> This chapter is written from a constructionist worldview that considers 'reality' as constructed by actors and by interactions between actors. Accordingly, there is no 'one' objective world out there, but many different constructions. The appreciation of intensity constructed by me, accordingly, is a subjective construction resulting from my interpretation of the data. It is not meant to be an 'objective' representation of 'the' business model reality.

The business model descriptions referred to a variety of *cares*<sup>8</sup>, particular responsibility-sustainability issues and causes companies were engaged in. As illustrated in Table P4. 1, I found 18 distinct themes of cares each with at least three mentions per theme. Of these themes, 17 referred to cares generically shared by several companies, such as *safety* (9 companies), *jobs & employment* (9 companies) or biodiversity (3 companies). The 18<sup>th</sup> theme consists of *unique cares* which were relevant for individual companies (14 mentions), but not found among other companies. They included cares such as *'British identity'*, *'sustainable living'*, and *'green building'*. The two cares covered by the largest number of companies were *environment as a whole* and *unique* cares (both 14 companies).

Companies sometimes mentioned elements from the same theme more than once. Accordingly, a second meaningful measure is the total number of mentions of a particular care. The most-mentioned theme, *environment as a whole* (22 mentions), also was the one included by the largest number of companies. The runner up is *climate*, *carbon*, *energy*, elements of which were mentioned 20 times. On average each of the seven companies that had included cares related to the *climate*, *carbon*, *energy* cluster mentioned such elements close to three times. Cares in the cluster of *unique cares* were the third most-frequent (19 mentions).

Table P4. 1 Cares and Their Occurrences across the FTSE100

Theme	Companies	Mentions	Exemplary mentions
Environment as a whole	14	22	eco-system health [C10], the planet [C15], positive effect on our world [C15], consideration to the environment [C21]
Unique cares	14	19	sustainable living [C36], green building [C8], arts [C13], human rights [C17], British identity [C7], disaster relief [C10], financial services access [C38]
Safety	9	16	product safety [C4], no more accidents [C13], safe environment [C15], safe people [C35], safety [C6]
Jobs & employment	9	12	direct and indirect employment [C10], new UK jobs [C39], jobs with opportunity [C39], enabling people to access opportunities [C21]
Socio- economic development	9	11	local economic and social development [C31], help local areas thrive economically and socially [C21], economic development [C31]
Education & people development	8	13	people development [C33], education and skills development [C27], financial education [C26], skills and knowledge transfer [C10]

<sup>&</sup>lt;sup>8</sup> Into the individual cares I did not include higher level concepts such as sustainability or responsibility, but only more specified cares such as the ones mentioned in the table.

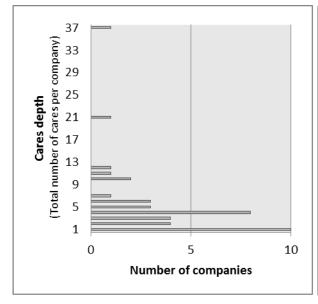
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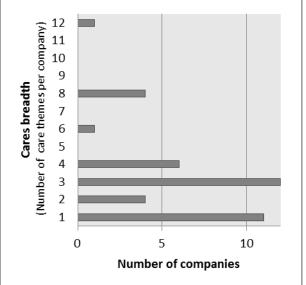
Diversity & inclusion	8	12	diverse workforce [C38], diverse communities [C15], equal opportunities [C28], inclusive workplace [C28], social integration [C13]
Climate, carbon, energy	7	20	climate change [C11], carbon reduction [C24], greenhouse gases [C13], renewable energy [C6], save CO2 [C9], carbon footprint [C37]
Health	7	16	occupational health [C13], healthy environment [C23], reduce salt content [C39], alcohol in society [C11], healthcare [C2], calorific labelling [C39]
Infrastructure	7	8	social infrastructure [C13], enhance the local area [C34], restore sites for community [C30], build schools [C39], creating affordable homes [C8]
Natural resource use	7	8	preserve resources [C25], optimal use of natural resources [C19], minimise carbon [C39], waste and water usage [C39], fuel efficiency [C24]
Eco impact reduction	7	8	minimising environmental impacts [C35], minimal impact on the environment [C34], maintaining leakage below threshold [C37]
Quality of life & wellbeing	6	10	enhance quality of life [C19], long-term wellbeing of communities [C13], wellbeing benefits [C19], active lifestyles [C10]
Water	5	9	water stewardship [C10], water availability [C13], river and bathing water quality [C37], cleaner shellfish waters [C37]
Transparency	4	7	transparent promotion [C24], clearer nutritional information [C24], openness and transparency [C29], honest and clear pricing [C24]
Biodiversity	3	3	Biodiversity [C10], land and biodiversity [C13], urban biodiversity [C21]
Environmental protection	3	3	protect and enhance the environment [C37], protecting the environment [C1]
Waste & recycling	2	5	waste diverted from landfill [C39], coffee sacks are recycled and reused [C39], diverting waste from all hotels [C39], water recycled [C1]

In summary, the FTSE100 addressed a wide variety of responsibility-sustainability cares in the texts of their business model descriptions. Many of these cares were shared generically across companies, but some of them were unique, particular cares of individual companies. We have now seen the totals of how the whole *group* of 39 companies embedded social cares into their business model devices. The focus in the following section is on the averages of cares *individual* companies embedded in their business model descriptions. Among the 39 companies, a total of 203 mentions of cares occurred. On average a company would mention cares slightly more than five times (depth) stemming from an average of three distinct themes (breadth). As outlined in Figure P4. 1 the majority of

companies included between one and six cares in the texts of their business model descriptions (depth), and covered between one and four distinct care themes (breadth). However, there were also extreme outliers. For instance, the company Fresnillo included 37 mentions of social cares across twelve distinct themes.

Figure P4. 1 Variety of Cares in Breadth and Depth





Variety in Positions of Embedding Responsibility-Sustainability Elements

The second half of the first research question asks for the positions of business models into which responsibility-sustainability elements were embedded: "...into which positions is responsibility-sustainability embedded in the visuals describing business models?"

As mentioned in the methods section the FTSE100 used a variety of visual models to describe their business models. This posed difficulties for analysis and comparability between distinct companies' models. How to compare an onion model with a flow chart? Adding another layer of complexity, these model types were often combined in just one business model description. For instance, Astra Zeneca [C2] used a flowchart to describe their inputs and outputs. Coca Cola HBC [C10] used an infographic style to describe their value chain model. As illustrated earlier, all of the different models featured the basic business model functions. Based on this observation, I was able to use these functions as positions as one generic coding template across different model types. I coded for the functions of value proposition, creation, exchange and capture. The descriptions of these functions in the literature review section were used as a coding template.

Table P4. 2 is an illustration of the themes that describe the textual embedding of responsibility-sustainability elements in these different functions. Under each function are several themes of responsibility-sustainability elements. For instance, the value proposition function included elements of the two themes of *needs and demands* as well as *expectation*, *experience and choice* of company stakeholders. Companies also described aspirational *purposes & aims*, which established a value proposition to wider society and stakeholders. This then resulted in an *offer*, *supply or provision*, of *products*, *services and programs* to stakeholders beyond customers.

The particular responsibility-sustainability elements in these themes provide rich qualitative insight. They show typical characteristics of responsibility-sustainability as it is embedded in the texts of each functional position. For instance, looking at the elements included in the *product*, *service programs* sub-theme shows how companies offer products that actively do good for a certain cause. An example is Centrica [9], stating that their product creates wellbeing or United Utilities [C37] claiming to improve the natural environment. We also see how companies describe products or services with a decreased negative impact. Examples are the 'low-carbon, energy efficient products' of Centrica or United Utilities with their 'services fit for a changing climate'.

Table P4. 2 Positions across the Sample and Sub-Themes per Position

Functional position*	Sub-themes in position: Instances found in data
Proposition (22/39)	<b>Purpose &amp; aim:</b> 'seek to create value for stakeholders' [C13]; 'become net positive' [C20]; 'we aim to improve the built environment while minimising our environmental impact' [C21]; 'we aim to help local areas thrive economically and socially' [C21]; 'our social purpose' [C22]; 'we aim to protect the environment and preserve resources for current and future generations' [C25]; 'we seek to be a responsible organization () to make positive social,
	environmental and economic contributions' [C34]; 'the goal of sustainable living' [C36]; 'brands with purpose' [C36]  Needs & demands: 'unmet medical need' [C2]; 'meet their existing and increasingly complex security needs' [C14]; 'meeting society's needs in a responsive manner' [C3]; meet the needs of our customers and communities' [C25]
	Expectation, experience, choice: 'wider society can achieve their ambitions' [C3]; 'meeting key stakeholder expectations' [C11]; 'society's expectations () are evolving and becoming more demanding' [C17]; 'our wider obligations to the community' [C17]; 'our green buildings are designed to enhance the experience of those who use them' [C8]; 'the bank of choice for all of our stakeholders' [C3]; 'The differentiator in our business model is our USLP (Unilever Sustainable Living Plan)' [C36]

**Products, services, programs:** 'we offer innovative low carbon, energy efficient products' [C9]; 'social and wellbeing (...) from the action of our products' [C19]; 'products that meet our customers' savings and protection needs' [C28]; 'our services (...) are fit for a changing climate' [C37]; 'the natural environment is protected and improved in the way we deliver our services' [C37]; 'community programmes' [C10]

**Offer, supply, provision**: 'improve the supply and quality of housing' [C22]; 'responsible provider of long-term capital' [C22]; 'offer security for individuals and benefit societies' [C28]; 'provide great water' [C37]

# Creation (28/68)

Capital & resources: 'Shared and relationship capital: suppliers, customers, government agencies, communities' [C10]; 'development expertise and community focus' [C18]; 'manage our assets in a way that benefits (...) everyone affected by our actions.' [C21]; 'our (...) assets are fit for a changing climate' [C37]

**Operations sites:** 'creating value for our customers, employees and the communities in which we operate' [C11]; 'essential to (...) the communities in which we operate' [C25]; 'contribute to local economic and social development' [C26]; 'responsibilities to the environment, society and the economies in which we operate' [C34]

**Operations:** 'proportion of all water used at Anglo American's operations that is recycled' [C1]; 'operating safely and responsibly' [C1]; 'sustainable development practices shape our operations' [C13]; 'our social licence to operate' [C13]; 'operating responsibly, making decisions that take account of our impact on those around us' [C26]

**Sourcing:** 'sustainably-sourced raw materials' [C15]; 'sustainable supply chains through purchasing is a significant part of our commitment to responsible business.' [C24]; 'the creation of sustainable value chains' [C31]

**Governance:** 'sound principles governing safety; business conduct; and social, environmental and economic practices are integral to our business.' [C23]; 'being sustainable is crucial for risk and opportunity management and is an essential part of good governance' [C34]; 'high standards of governance, transparency and anti-corruption' [C35]

'The way' of doing business: 'exceptional value in a sustainable way' [C23]; 'the natural environment is protected and improved in the way we deliver our services' [C37]; 'in a responsible manner' [C37]; 'embedding our CSR principles into the way we do business' [C39]

Activities, practices, behavior 'our activities are focused on biofuels and wind' [C6]; 'safety underpins everything we do' [C12]; 'strong values drive everything we do' [C15]; 'embedding our HSBC Values in everything we do' [C17]; 'values achieve strong governance across all (...) activities' [C35]; 'health and safety, training and ethical business practices' [C14]; 'responsible behaviour' [C4]; 'acting with integrity' [C23]

**Values:** 'our values guide us' [C1]; 'values led' [C8]; 'underpinned by our values' [C16]; 'a values-driven culture is embedded across the group' [C26]; 'our values set us apart (...) they underpin (...) the way we operate our business' [C32]; 'values and performance culture' [C36]

# **Exchange** (14/19)

**Relationships, partnerships, collaboration:** 'to deliver on our promises and build respectful and mutually beneficial relationships with our stakeholders' [C1]; 'long-term partnerships' [C31]; 'the way we relate to customers, colleagues and stakeholders' [C32]; 'build trust and reputation with all stakeholders' [C35]; 'collaborative partnerships' [C36]

**Engagement:** 'gaining and maintaining our social and legal licence to operate, through open and honest engagement with our stakeholders' [C1]; 'engaged communities' [C8]; 'community engagement – we listen to the communities we

serve and work hard to address concerns' [C25]; 'community engagement' [C34] **Delivery and recovery:** 'deliver our commitments to society' [C5];
'environmentally efficient distribution centers' [C24]; 'distribution channels that enable us to better understand and service customers' savings and protection needs' [C28]; 'recycling and recovery' [C10]; 'dispose of wastewater' [C37] **Customer choices:** 'champion informed consumer choice' [C5]; 'through ongoing product reformulation, the provision of clearer nutritional information and strong promotions, we are also helping customers to make healthier choices' [C24]; 'honest, clear pricing, transparent promotions and clear shelf edge pricing giving our customers flexibility' [C24]; 'sustainable brand growth' [C36]

## **Capture** (24/50)

**Contribution:** 'contribution to society' [C1]; 'contributed (...) to communities' [C8]; 'GDP contribution' [C13]; 'providing a valuable economic contribution to their regions' [C18]; 'our employees contributed 2,247 volunteering days to community and charity work' [C22]; 'making a positive difference to our community' [C32]; 'making a positive and lasting contribution where we operate' [C35]

**Benefit:** 'benefits to patients' [C16]; 'wider benefits to society' [C16]; 'social and wellbeing benefits' [C19]; 'social and economic benefits to the communities' [C28]; 'shared prosperity: create sustainable, transparent and tangible benefits' [C35]

**Value:** 'creating shared value' [C1]; 'create value for a wide group of stakeholders' [C5]; 'social value' [C11]; 'value for society' [C20]; 'generate value for all our stakeholders' [C26]; 'social performance' [C35]

**Investment;** 'investing in renewable energy' [C6]; 'community investment programmes' [C10, C22]; 'investment in communities' [C26]; 'investment in (...) community support activities' [C28]; 'local community investment' [C31] **Improvement & reduction:** 'improved health' [C2]; 'improving public spaces,

enhancing pedestrian links' [C8]; 'to improve the quality of human life by enabling people to do more, feel better, live longer' [C16]; 'reinforcing our centres' role as vital hubs for the community' [C18]; 'shellfish waters are cleaner through our work' [C37]; 'reduced environmental footprint' [C19]; 'reducing the pressure on strained public finances' [C22]; 'reducing our waste' [C24]

**Creation & conservation:** 'creating affordable homes ' [C8]; 'generates an estimated 31 jobs' [C8]; 'job creation' [C13]; 'creating employment and a brighter future for our people' [C20]; 'conservation quality of life' [C13]

**Development:** 'our five- year development programme is creating 32,300 jobs' [C8]; 'professional development' [C13]; 'sustainable development ' [C23]; 'development and reward of employees' [C26]

Thirty-three companies had included responsibility-sustainability into the texts of their visual business model descriptions. On average a company would embed just over four responsibility-sustainability elements into the visual in an average of two functional positions. In Figure P4. 2 we see that the most frequent depth was the embedding of 4 responsibility-sustainability elements. The breadth of responsibility-sustainability embedding across distinct positions was comparatively high. FTSE100 would most commonly cover three out of four functions (15 companies). Five companies even covered all four functions. This suggests a high level of systemic embeddedness of responsibility-sustainability elements in these companies' business model descriptions.

<sup>\*(</sup>companies/ mentions)

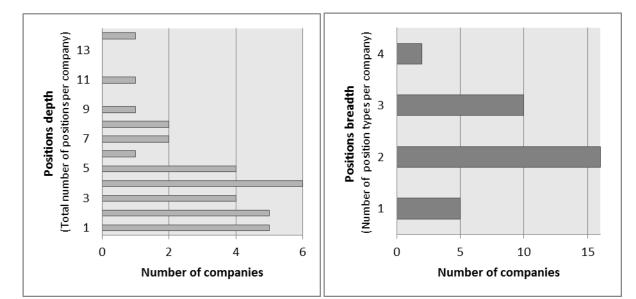


Figure P4. 2 Variety of Positions in Breadth and Depth

#### **Intensity of Textual Embedding: A Measure of Change? [Answer RQ2]**

The second research question was aimed at developing an appreciation of the intensity of embedding efforts of responsibility-sustainability into business model descriptions: 'How does corporations' textual embedding vary in intensity and how may this intensity relate to business model change?' It will be addressed in two sections.

#### Intensity of FTSE100 Corporations' Textual Embedding

The first part of the second research question was aimed at creating a comparative appreciation of the intensity of embedding efforts: 'How does corporations' textual embedding vary in intensity...?' To answer this question, I developed a quantitative score based on both the cares and positions of responsibility-sustainability elements. Intensity also brings together the measures derived under the first research question: Breadth and depth in responsibility-sustainability cares and positions. The details of score development have been explained in the methods section.

With the resulting score I was able to separate the corporations into four quartiles. Quartile 1 is a cluster of nine corporations with a very high intensity of textual embedding. The intensity decreases through Quartiles 2-4, each of which includes ten companies. Figure P4. 3 provides an overview of the intensity of textual embedding across the FTSE100 corporations. The ranking of companies' intensity derived from the developed measure appear largely consistent with similar measures such as the distinctions of the Dow Jones Sustainability Index (see Figure P4. 4 in the appendix).

What do these scores mean? They are an impression of comparative intensity. They compare how intensively corporations in the sample had embedded responsibility-sustainability elements into their business model descriptions' texts. Intensity of embedding also expresses how strongly a reader of these textsis likely to perceive embedding. From the business model descriptions a reader may feel that a Quartile 1 company like Unilever [C36] has more intensively embedded responsibility-sustainability into the text than Rio Tinto [C30] in Quartile 4. Another example is the highest-scoring Fresnillo which has shown a higher intensity of textual embedding than the lowest-scoring Burberry [C7]. But does this actually mean that Fresnillo has embedded responsibility-sustainability deeper into their *enacted* business model than Burberry? The next section will further discuss such questions.

A company might show a very high intensity of textual embedding into a, from the onset, extremely irresponsible or unsustainable enacted commercial business model. High textual responsibility-sustainability embedding intensity might even be triggered by the efforts to counterbalance a very irresponsible or unsustainable enacted business model. The leaders in textual embedding intensity, Fresnillo and Anglo American are both mining companies. The mining sector has been criticized for a variety of responsibility-sustainability issues related to their enacted business models. Criticism relates to accidents, unhealthy working conditions, use of polluting chemicals, involvement into corruption related to concessions, destruction of natural habitat and many more. The extreme textual embedding intensity of responsibility-sustainability may be an effort to counter-balance the negative issues built into their enacted business models.

The next section is aimed at better understanding what this variety in intensity of textual embedding responsibility-sustainability may tell us about the change in the corporations' enacted business models.

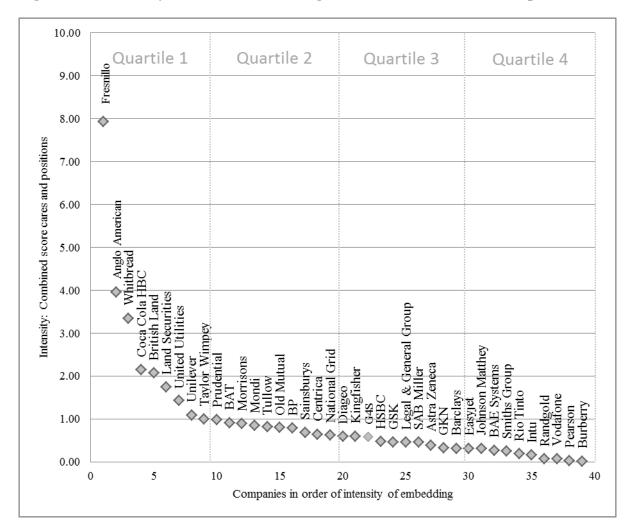


Figure P4. 3 Intensity of Textual Embedding across Business Model Descriptions

Business Model Change and the Intensity of Textual Embedding into Devices

The second part of the second research question had asked: '...how may this intensity relate to business model change?' This question is aimed at understanding what a high intensity of textual embedding means in terms of an individual corporation's business model. In the literature review part of this chapter, business models were described as logics, devices and as their enactment. Accordingly, a change in the business model is a change in any of these three, in two, or possibly in all three.

First, has the business model *device* changed? Corporations with a high intensity of textual embedding have responsibility-sustainability elements inscribed in a wide variety of cares and positions. While embedding responsibility-sustainability into the texts of business model descriptions in reports, the *'reporters'* have *'inscribed'* responsibility-sustainability deeply into what used to be a purely commercial business model. These

companies' business model descriptions, the devices, were changed in the process of textual embedding.

Secondly, has the business model *logic* changed? The devices 'describe' business model logics. When their inscription was changed through textual embedding, also the logic they describe was changed. A high intensity of textual embedding into the device also meant that the business model logic described by the device had changed. Devices described not a purely commercial logic anymore, but a blended commercial-responsibility-sustainability logic. However, the question is if the changed business model logic described by the device was also enacted.

Third, has the business model *enactment* changed? Answering this question is somewhat more complex. There are two scenarios. On the one hand, a business model device might be a fair representation of an enacted business model that has deeply embedded responsibility-sustainability. High intensity of textual embedding into the business model description may simply reflect an intensive embedding in the enacted business model. As discussed in the FTSE/LSE section earlier in this chapter, it is not unlikely that the devices are fair descriptions of such enactment.

On the other hand, a device might not represent the enacted business model at all. A high intensity of textual embedding in a business model description may be absent in the enacted business model. Would this mean such a device is a meaningless 'paper tiger'? Is it an impressively looking document that is meaningless in the context of the enacted business model? Not so, if we consider that devices may not only represent enactment, but they may also change enactment. It has been found that reports may be used by managers to 'construct' their organizational realities (Campbell, 2000; Bloomfield & Vurdubakis, 1994). They may be instruments in change management to build more responsible and sustainable organizations (Lozano, et al., 2016). Accordingly, a business model device with a high intensity of textual embedding might become actively involved as an instrument in embedding responsibility sustainability in the enacted business model. It may become 'performative', creating the very reality it describes (Callon, 2007; Muniesa, Millo, & Callon, 2007).

However, from the data available in the FTSE100 reports, we cannot see if the enacted business model of the corporations is reflected in the intensity of textual embedding in the description. Nor can we see if a device with a high intensity of textual

embedding is involved in embedding responsibility-sustainability, into changing the enacted business model. It requires an in-depth case study of a corporation to observe the situation *'from inside'*. The next three papers are such an in-depth case study of The Company<sup>9</sup>. The study will help us to further appreciate the change processes between devices and the enactment through actor networks.

#### **Conclusions and Discussion**

The textual embedding of responsibility-sustainability has become an increasingly taken for granted part of FTSE100 business model descriptions. This chapter explores this unique phenomenon to better understand how and with what intensity responsibility-sustainability was embedded in the texts of business model devices. Out of the 100 largest FTSE-listed corporations, 39 had included responsibility-sustainability cares into their textual and visual business model descriptions. Thirty-six of them also had positioned responsibility-sustainability elements in the value proposition, creation, exchange and capture functions. I found considerable variety in the textual embedding of responsibility-sustainability. This included a variety of cares covered and of positions responsibility-sustainability had been embedded into.

The relationship between the high intensity of textual embedding and business model change was discussed. When 'reporters' embed responsibility-sustainability into a business model device text, they 'inscribe' new elements into it. These new elements change the business model logic 'described' by the device. Accordingly, textual embedding changes the device and the logic it describes. However, we do not know if this change also happens in the enacted business model. Further research in the form of indepth case studies of individual companies may answer this question.

<sup>&</sup>lt;sup>9</sup> The name has been changed to preserve the anonymity of The Company.

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### Appendix

Table P4. 3 Counts of Corporations' Breadth and Depth in Cares and Positions

		Ca	res	Positions			
ID	Name	Cares depth: Total number care mentions per company	Cares breadth: Distinct care themes per company	Positions depth: Total number positions per company	Positions breadth: Number distinct position types per company		
C1	Anglo American	10	8	18	4		
C2	Astra Zeneca	5	3	2	2		
C3	Barclays	1	1	4	2		
C4	BAESystems	4	3	2	1		
C5	BAT	1	1	6	4		
C6	BP	10	4	2	2		
C7	Burberry	1	1	0	0		
C8	British Land	6	6	10	4		
C9	Centrica	4	3	4	3		
	Coca Cola HBC	11	8	5	3		
	Diageo	3	3	4	2		
C12	Easyjet Fresnillo	37	1 12	8	3		
C14		6	3	4	2		
	GKN	4	4	2	1		
	GSK	1	1	4	3		
	HSBC	3	2	5	2		
C18		1	1	2	2		
	Johnson Matthey	5	3	2	1		
	Kingfisher	3	3	4	3		
	Land Securities	12	8	3	2		
C22	Legal & General Group	1	1	6	2		
C23	Mondi	4	4	8	2		
$\overline{}$	Morrisons	7	3	5	3		
	National Grid	2	2	5	3		
	Old Mutual	1	1	7	3		
	Pearson	2	1	0	0		
	Prudential	4	3	7	3		
	Randgold	2	2	0			
	Rio Tinto	4	3	0	0		
	SAB Miller	1	1	4			
	Sainsburys Smiths Group	1	1	6	0		
	Taylor Wimpey	5	4	6	3		
	Tullow	3	3	6	3		
	Unilever	4	3	8			
	United Utilities	6	4	7	4		
	Vodafone	2	2	0	0		
C39		21	8	6	3		
	Average	5.21	3.31	4.51	2.26		

Table P4. 4 Intensity of Embedding by Corporation\*

	Name	ID	Cares	Cares	Positions	Positions	Combined score
			combined	combined	combined	combined	cares & positions
				normalized		normalized	('Intensity')
e 1	Fresnillo	C13	444	14.08	24	1.79	7.94
Quartile 1	Anglo American	C1	80	2.54	72	5.38	3.96
na	Whitbread	C39	168	5.33	18	1.34	3.34
0	Coca Cola HBC	C10	88	2.79	20	1.49	2.14
	British Land	C8	36	1.14	40	2.99	2.06
	Land Securities	C21	96	3.04	6	0.45	1.75
	United Utilities	C37	24	0.76	28	2.09	1.43
	Unilever	C36	12	0.38	24	1.79	1.09
	Taylor Wimpey	C34	20	0.63	18	1.34	0.99
2	Prudential	C28	12	0.38	21	1.57	0.97
ij	BAT	C5	1	0.03	24	1.79	0.91
Quartile 2	Morrisons	C24	21	0.67	15	1.12	0.89
$\circ$	Mondi	C23	16	0.51	16	1.20	0.85
	Tullow	C35	9	0.29			
	Old Mutual	C26	1	0.03	21	1.57	0.80
	BP	C6	40	1.27	4	0.30	0.78
	Sainsburys	C32	1	0.03	18	1.34	0.69
	Centrica	C9	12	0.38	12	0.90	0.64
	National Grid	C25	4	0.13	15	1.12	0.62
€.	Diageo	C11	9	0.29	12	0.90	0.59
Quartile 3	Kingfisher	C20	9	0.29	12	0.90	0.59
ца	G4S	C14	18	0.57	8	0.60	0.58
$\circ$	HSBC	C17	6	0.19	10	0.75	0.47
	GSK	C16	1	0.03	12	0.90	0.46
	Legal & General Group	C22	1	0.03	12	0.90	0.46
	SAB Miller	C31	1	0.03	12	0.90	0.46
	Astra Zeneca	C2	15	0.48	4	0.30	0.39
	GKN	C15	16	0.51	2	0.15	0.33
	Barclays	C3	1	0.03	8	0.60	0.31
4	Easyjet	C12	1	0.03	8	0.60	0.31
Quartile	Johnson Matthey	C19	15	0.48	2	0.15	0.31
	BAE Systems	C4	12	0.38	2	0.15	0.26
	Smiths Group	C33	16		0	0.00	
	Rio Tinto	C30	12	0.38	0	0.00	0.19
	Intu	C18	1	0.03	4	0.30	0.17
	Randgold	C29	4	0.13	0	0.00	0.06
	Vodafone	C38	4	0.13	0	0.00	0.06
	Pearson	C27	2	0.06	0		
	Burberry	C7	1	0.03	0	0.00	0.02
	Average		31.54	1.00	13.38	1.00	1.00

<sup>\*</sup> The overall embedding score ('combined score of cares and positionalities') is the sum of an embedding score for 'cares' and 'positions', each of which is achieved by multiplying the depth and breadth of embedding. To achieve equal weighting of cares and positions their scores were normalized. Consider the following calculation example for the case of Diageo: Diageo had covered 3 cares in 3 themes and 4 elements embedded into 3 distinct types of positions. The combined cares measure is 3x3=9. The combined positions measure is 4x3=12. These numbers were normalized to give each measure equal weighting: 0.29 for cares and 0.9 for positions. The average between these two scores is the combined score between cares and positions which was used as a measure of intensity: (0.29+0.9)/2=0.595

Figure P4. 4 Triangulation Note: Dow Jones Sustainability Index

To triangulate the embedding intensity described in Figure P4. 3, I compared it with the commendations for responsibility-sustainability excellence made by the Dow Jones Sustainability Index yearbook 2015.\* The index is a listing of over 3000 companies that have participated in an extensive evaluation and listing of self-reported responsibilitysustainability activities. This can be seen as another effort to describe the embedding of responsibility-sustainability into the enacted company. Based on the quality of their reported responsibility-sustainability, and a consultation of stakeholders and public perception, a small number of leading companies are awarded a gold, silver or bronze distinction. They are announced industry leaders recognizing highest standard of practice per industry, or industry movers who have most strongly improved their evaluation in their respective industry. Comparing the quartiles we had described above of the intensity of embedding, the nine companies with a very high degree of embedding accounted for ten\*\* of the above awards. Among them were one super-sector leader, three industry leaders, one industry mover, four gold class members, and one bronze member. The number and quality of these awards in Quartile 1 is higher than the cumulated awards achieved by the remaining 30 companies in our assessment together (eight awards: 1 gold, 2 silver, 3 bronze, 1 industry leader, 1 industry mover).

Critical voices are justified to say, that this proves nothing about the level of responsibility-sustainability embedding enacted by these companies. It only shows that the companies who are good at doing annual reports are also good at getting evaluated by the Dow Jones Sustainability Index. However, many of the companies commended by the Dow Jones Sustainability Index have been recognized as responsibility-sustainability leaders through a number of other mechanisms as well. Of course, the general question about the relationship between excellence in reporting and companies' enactment remains. For instance, a company like British American Tobacco (awarded a gold class member and industry leader) can ever be considered sustainable or responsible given the nature of their main product, tobacco, no matter how intensively they embed responsibility-sustainability measures into their reporting, including their business model description.

<sup>\*</sup>Data available here: http://www.ingwb.com/media/1020213/robecosam\_sustainability\_yearbook\_2015.pdf

<sup>\*\*</sup>Corporations can be commended multiple times across categories.

# PAPER 5. WHAT DID 'BEING RESPONSIBLE' DO? AGENCY OF A CORPORATE RESPONSIBILITY-SUSTANABILITY DEVICE

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#### **Abstract**

This paper is an in-depth case study of The Company's 1 corporate responsibilitysustainability <sup>2</sup> program 'Being Responsible'. I first analyzed the program's textual description, the device. Its 'inscription', 'what it was' showed its coherent responsibilitysustainability logic and its potential to relate to a variety of key actors across The Company. I also asked interviewees across The Company 'what it did'. Through a thematic analysis, five agency types were found in the answers: Starting conversations [A], connecting & structuring [B], motivating enactment [C], legitimizing & enabling [D], and framing & aligning [E]. These closely resembled Callon's (1986) 'modes of translation' that can be observed when actor-networks are constructed. It appears that the 'Being Responsible' device was involved in the construction of an actor-network enacting responsibilitysustainability. The implications of these findings for the textual agency and responsibilitysustainability implementation literatures are discussed. This paper is the first out of three. Together they study the embedding of 'Being Responsible' in The Company as business model change. This paper ends with the open question if 'Being Responsible', through building its actor network, might also have changed the business model actor network. This question is subject of the next paper.

#### Keywords

actor-network theory, translation, device, textual agency, corporate responsibility, corporate sustainability

<sup>&</sup>lt;sup>1</sup> Re-named to ensure anonymity of The Company

<sup>&</sup>lt;sup>2</sup> The term responsibility-sustainability is meant to capture the entangled nature of both topics.

#### Introduction

'Without Being Responsible (...) would we have gone as far, as quickly and with such breadth? (...) Would we have received the same level of credit for it and have recognised it as being as powerful? Almost certainly not.' [Jay, Corporate Affairs, P23]

This statement by Jay suggests 'Being Responsible' had done much for advancing corporate responsibility-sustainability across The Company. 'Being Responsible' was the title of The Company's one-page textual device that described its responsibility-sustainability program. Many large companies had such a program. Prominent examples include Unilever's 'Sustainable Living Plan', Marks & Spencer's 'Plan A', or Interface Flor's 'Mission Zero'. These programs were typically described in devices resembling The Company's 'Being Responsible'. The statement of Jay at The Company, that such a device may do much for advancing responsibility-sustainability, together with the wide occurrence of such devices suggest high relevance.

Devices may develop a number of different types of agency, to transport ideas across boundaries (Star & Griesemer, 1989), construct markets (Callon, 2007) and actor networks (Callon, 1986a; Callon, 1991). The purpose of corporate responsibility-sustainability is to construct responsible and sustainable organizations. Accordingly, the suggestion that such devices may construct an actor network enacting responsibility-sustainability is most relevant. The use of devices in the actor-network theory context is the most relevant conceptual lens in this context. Combining Jay's initial quote about the agency of 'Being Responsible' with the conceptual anchoring in actor-network theory leads us to the initial problem this paper departs from:

How may a responsibility-sustainability device like 'Being Responsible' construct an actor network that enacts its responsibility-sustainability logic?

This paper studies this problem by asking what 'Being Responsible' was (inscription) and did (agency). I will find that the device inscription gave it the potential to construct an actor network. I will also find how the device developed agency by translate its responsibility-sustainability logic to be enacted by other actors. The study is based on interviews, observational data and on documents collected across The Company. The data will be analyzed through a thematic analysis.

A methodological characteristic of actor-network theory is that it is best illustrated in actual cases (Latour, 1996; Law, 2009). Accordingly, this paper illustrates theory through the empirical case of *Being Responsible*' throughout the following literature review section and also develops new theory from empirical insights from the case in the findings section.

#### **Devices: Constructing Actor Networks through Translation**

The conceptual lens chosen for this study is actor-network theory. Actor-network theory understands reality as a network of heterogeneous, human and nonhuman actors (Law, 2009). This can be any type of actor such as 'objects, subjects, human beings, machines, animals, "nature," ideas, organizations, inequalities, scale and sizes, and geographical arrangements' (p. 141). The relations between these actors form the network. In actornetwork theory nothing exists, 'outside the enactment of those relations' (p. 141). Through their relations, the actors together become entangled and cannot be separated into human or nonhuman (Akrich & Latour, 1992). Organizations can be seen as such actor networks as well (Alcadipani & Hassard, 2010; Czarniawska & Hernes, 2005; Lee & Hassard, 1999; Orlikowski, 2009; Walsham, 1997). An organizational actor network that enacts responsibility-sustainability enacts a responsible and sustainable organization. What can be the role of a responsibility-sustainability device, such as The Company's 'Being Responsible' device in this enactment?

#### Devices

Devices are a salient actor type in such networks. They are 'things' shaped to develop a certain agency (Miettinen, 1999). They are inscribed to 'do' something, inscribed with agency. As Latour (2005, p. 71) exemplifies, 'knives cut' and 'soap takes away the dirt'. Knives are actors as they embody the agency of cutting, soap as it develops the agency of cleaning. A particularly relevant area of agency for this paper is agency in constructing actor networks. Devices can become intermediaries between actors. They facilitate relations between them, which constitute the actor network (Callon, 1986a; Callon, 1991; Miettinen, 1999). For instance, Doganova and Eyquem-Renault (2009) observe the agency of devices such as power points or business plan devices that describe a certain business model logic. These devices were involved in constructing an actor network that enacted a business according to that logic. Demil and Lecocq (2015) study multiple devices such as products, documents and departments. The devices were involved into re-constructing an existing company's actor network. This led to organizational change and to the enactment

of a new business model logic. This lends itself to the question, why and how distinct devices show distinct types of agency; why they build distinct actor networks, enacting distinct logics.

The logic which devices make other actors enact (Mol, 2010) is determined by a device's 'inscription'. It is what they are designed to enact and designed to make others enact (Akrich, 1992; Akrich & Latour, 1992). Accordingly, a device that is aimed at constructing an actor-network that enacts responsibility-sustainability would need to be inscribed with a logic of responsibility-sustainability. The device would 'translate' its logic to other actors in order to make them enact responsibility-sustainability as well. By doing so, such a device would construct an actor-network of heterogeneous organizational actors. In the case of The Company (see Paper 6) such actors included, for instance, the marketing department, the CEO, main products, suppliers, the shops, and many other actors, that enact the responsibility-sustainability logic. Through their relations, these actors would form a network that enacts a responsibility-sustainability logic.

#### **Translation**

A device that has been inscribed with a responsibility-sustainability logic will not necessarily enrol other actors to enact its logic. What does a device need to 'do' to construct an actor network? Callon (1986a; 1991) describes the process of constructing actor networks, as 'translation'. Through translation, a device may construct an actor network that enacts a responsible and sustainable organization. Callon (1986a, p. 59) stresses the importance of 'four moments of translation' in order to 'successfully' (Callon, 1991, p. 145) construct an envisioned actor network. For a device to successfully engage into the process of translation means to construct an actor-network that enacts its inscribed logic:

- 1. **Problematization:** The purpose of the device inscription has to become 'everybody's and everything's problem'. If the achievement of the purpose of an inscription is 'indispensable' for all of the actors to achieve their own purposes, they will be motivated to enact it. Callon (1986a) calls this to construct an 'obligatory point of passage', something an actor has to pass or fulfil to achieve its own purpose.
- 2. *Enrolment*: Actors have to be given 'a role' in the emerging actor network. Their role has to be defined according to the logic to be enacted. The role is what each actor can contribute to the network. For instance, a company chief executive officer

- could be enrolled to empower responsibility-sustainability; the research and development department to design responsible and sustainable products; a balanced scorecard to guide behaviors by enforcing responsibility-sustainability indicators.
- 3. *Disassociation:* Actors may already be enrolled in other, possibly competing networks. For instance, in The Company the research and development department was enrolled as 'inventor of super-selling products' in the commercial-logic actor network. It may not have had resources to additionally assume a role as creator of responsible and sustainable products, its potential role in the responsibility-sustainability actor network. To help such actors enact the responsibility-sustainability logic, translation requires to disassociate, 'to free' them from the inhibiting effect of the roles in competing actor networks.<sup>3</sup>
- 4. *Convergence*: The continuity of an actor network depends on the degree of 'agreement' between actors (Callon, 1986a). If there was considerable tension between actors and the device, resulting struggles would make the actor network break down. A network of actors needs to be represented by a device, and every actor needs to represent the device's logic (Callon, 1986a). As a consequence, device and actors in the network it represents have to be(come) aligned and coordinated (Callon, 1991). What would happen if the 'Being Responsible' device was not representative of the majority of the actors that enact responsibility-sustainability? It would either need to be re-inscribed to align with divergent actors, or it would need to redefine actors so that they align with its inscription.<sup>4</sup>

So we can assume that if the 'Being Responsible' device showed agency to facilitate these moments of translation, it was involved in constructing an actor network. This actor network would enact the responsibility-sustainability logic which the device had inscribed. It would construct an organizational actor network that enacts responsibility and sustainability.

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<sup>&</sup>lt;sup>3</sup> Callon (1986a) had originally used the term 'interessement' describing this process of 'freeing' actors from these limiting enrolments. Interessement is derived from the Latin term inter-esse, to be in between; to put something in-between the actor and the competing actor network; to interrupt the competing enrolment. It becomes apparent from this explanation that associating 'interessement' with the English word 'to interest' someone into something would be highly misleading. Interessement means the very opposite. It means to disassociate actors, or to 'disinterest' them from a network they are enrolled in. In order to avoid confusion of an English-speaking audience, I have taken the liberty to foreground the term 'disassociation', which Callon used in the same context and which is less prone to misunderstanding.

<sup>&</sup>lt;sup>4</sup> Callon (1986a) had originally called this moment of translation 'mobilization'. However, in his later chapter, further developing the theory of translation, he calls it convergence, which is the term used in this paper.

### Method

The initial problem, 'How may a responsibility-sustainability device like Being Responsible construct an actor network that enacts its responsibility-sustainability logic?', paired with the concepts in the previous section leads to two research questions. The first question is aimed at studying 'what the device was'; its inscription and implicit potential to build actor networks.

**RQ1:** Was the device inscribed with a coherent responsibility-sustainability logic and had the potential to make actors enact it? [Inscription-what it was]

The second question is aimed at studying if and how the device facilitated the enactment of responsibility-sustainability. This question is about 'what the device did', its agency.

**RQ2:** How did the device exert agency to construct an actor network that enacted its responsibility-sustainability logic? [Agency- what it did]

Together, the questions study if the device had a coherent responsibility-sustainability logic and how it developed agency to construct a network enacting this logic. Addressing the questions will provide insight into the initial problem.

Actor-network theory is best conveyed through empirical cases (Latour, 1996; Law, 2009). The two findings sections, each responding to one of the research questions, are written in the style of a typical actor-network theory publication. This means that throughout the case presentation empirical material is used to illustrate concepts. At the same time conceptual insights are derived from empirical data. Empirical observations will be interpreted through the device and translation concepts introduced earlier. The findings sections are written as such 'theory-enhanced' case studies. They develop new theory on the inscription and agency of responsibility-sustainability devices by answering the two research questions.

## Data Collection

Collecting data to answer these questions involved an extended engagement with The Company over 30 months. It included regular contact via phone, interviews and email, as well as 11 weeks on-site, in deep ethnographic immersions. This has led to 104 interviews

<sup>&</sup>lt;sup>5</sup> Excellent examples for this methodological and style feature of actor-network theory are, for instance, Callon's (1986a) seminal paper introducing translation through the case of the 'of the Scallops and the Fishermen of St. Brieuc Bay'; Callon's (1986b) 'case of the electric vehicle' used to explain the conceptual idea of 'a sociology of an actor-network'; or Law and Mol's (2008) description of 'the Cumbrian sheep' illustrating the conceptual idea of how actors are enacted.

with 72 individuals involved in 'Being Responsible' across The Company. Interviewees were, for instance, based in Customer Relations, Product Teams, Subsidiary Companies, Human Resources and in Shops. The interviewees were purposively sampled, based on their involvement in enacting 'Being Responsible'. During the sampling process it was made sure that the interviewee sample represented all of the major areas that 'Being Responsible' was enacted in. I also ensured that no group would quantitatively dominate the sample. The groups of interviewees in these distinct areas and how they related to 'Being Responsible' are further described in Table P5. 1.

**Table P5. 1 Interview Sample** 

Groups	Interviews/ interviewees <sup>6</sup>	Interviewees in group	Interviewee group's relationship to 'Being Responsible'
CRS <sup>7</sup> Team	48/14	P7-19, P72	Ambassadors for 'Being Responsible', enabling actors across The Company to enact it.
CRS Liaison	10/11	P1-P6, P26, P30, P44, P65, P68	CRS specialists working on 'Being Responsible' as a full time job across commercial business departments.
Corporate Affairs	5/5	P22-P24, P28, P29	Contributed to and engaged with 'Being Responsible' as part of their public engagement. The CRS Team was located in Corporate Affairs.
<b>Customer Relations</b>	6/7	P31, P33, P34, P39, P49, P48, P57	Involved in communicating with customers about 'Being Responsible' cares and issues.
Commercial Support	6/6	P20, P25, P27, P36, P41, P69	Commercial subject-topic specialists with remits related to 'Being Responsible'.
Infrastructure Team	6/8	P4, P32, P42, P43, P47, P48, P60, P64	The Infrastructure Team enacted most of the initiatives related to The Company's environmental impact.
Human Resources	5/5	P45, P46, P59, P66, P67	One of the strategic cares of 'Being Responsible' and the care of 'employment practices' related to aspects across the Human Resources function.
Product Team	5/5	P35, P40, P61- 63	The Product Teams were in charge of both product design and procurement, which made them crucial actors in terms of one of the strategic cares and of the 'responsible procurement' care.
In Shop	4/4	P50, P51, P54, P55	The Shops were expected to enact the care of 'community engagement'.
Subsidiary Company	6/6	P9, P21, P38, P52, P56, P71	Both international subsidiaries and branded business units of The Company were involved in enacting their own

<sup>&</sup>lt;sup>6</sup> Individuals from the CRS Team were interviewed multiple times, alone and in group settings. In-between stages of the research project, P5 and P10 had changed jobs from one to another department which is why they were counted twice, once in their old and once in their new department.

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<sup>&</sup>lt;sup>7</sup> CRS stands for corporate responsibility-sustainability.

			responsibility-sustainability activities, closely aligned with The Company's 'Being Responsible'.
Supplier Company	3/3	P37, P58, P70	Suppliers were expected to show their commitment to activities aligned with
Company			'Being Responsible'.

The empirical basis for answering the first research question was the 'Being Responsible' device visual and text as well as the entire set of 104 interviews and participant observation data. This included its extensive description in The Company's responsibility-sustainability reports, on the website and various internal documents. It relied particularly strongly on the interviews with six individuals<sup>8</sup> who had been involved in constructing the device during its creation. These individuals were asked about the original intentions behind the device; about the processes that shaped it; and about how they understood the logic inscribed into it. Following the device as it circulated across The Company helped to understand which parts of its inscription related to which actors across The Company. These sources of data were then triangulated, which led to the findings on the inscription of the 'Being Responsible' device in the first findings section.

Empirical material for addressing the second research question was primarily interview-based. It mainly stemmed from one the answer to one particular question asked in a subset of interviews. Out of the full set of 104 interviews, 51 interviewees across The Company and two interviewees in the CRS Team were asked: 'What does Being Responsible do?' For most interviewees an additional interview cue was given: 'What would be different if Being Responsible would not exist?' These interviewees were mainly individuals outside the CRS Team. The reasoning behind this was to minimize a likely desirability bias due to the CRS Team's ambassador role for 'Being Responsible'.

# Analysis

The analysis conducted for the first question studying device inscription was fairly straightforward. In a first step, it required reviewing and anonymizing the *'Being Responsible'* device's areas and the cares it covered. This led to the description of the device's explicit description (Figure P5. 1). In a second step I drew from observations and interviews. They helped me to identify to which actors the device's areas and cares related. This led to an appreciation of the device's implicit inscription (Figure P5. 2).

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<sup>&</sup>lt;sup>8</sup> Jacob, CRS Team, P7; Jim, CRS Team, P9; Grant, CRS Team, P11; Jessy, CRS Team, P15; Sue, CRS Team, P16; Kathy, Commercial Support, P25; Earl, Corporate Affairs, P29

However, the second question studying device agency required a more complex analysis. I used thematic template analysis to identify the types of agency 'Being Responsible' developed. Thematic template analysis combines induction and deduction iteratively through several stages of coding (Fereday & Muir-Cochrane, 2006). A final template consisting of several themes (here the agency types) is developed from data and relevant literature (Boyatzis, 1998; Crabtree & Miller, 1999; King, 2004). The method has been recommended for large amounts of textual data such as in this case (Waring & Wainwright, 2008). It is particularly well-suited for constructionist research, to which actor-network theory belongs (Braun & Clarke, 2006; Vaismoradi, et al., 2013). I will now outline the four stages in which the method was applied to answer the second research question aimed at understanding the agency types the device engaged in (Fereday & Muir-Cochrane, 2006):

- 1. Data exploration: Answers to the questions 'What does Being Responsible do?' were transcribed and loaded into the qualitative analysis support software NVivo. All statements describing agency were extracted from the answers. For the identification of device agency, I used Latour's (2005, p. 71) description of agency as whenever a device 'does' something. This was typically indicated through the use of an action verb. Also, often a statement describing the agency of 'Being Responsible' would begin with 'Being Responsible' as subject, such as in 'So Being Responsible (...) helps connect things' [Kathy, Commercial Support, P25]. Another typical pattern of describing the agency of the 'Being Responsible' device was by describing an outcome of its existence: 'The, kind of, initiatives that I mentioned already are things that we've introduced as a result of Being Responsible' [Dana, Supplier Company, P70]. I reviewed such agency statements from ten interviews as a pilot coding. This was to gain an initial appreciation of the types of agency to be expected in the data.
- 2. Initial Template: In thematic template analysis, the pilot coding is meant to lead to first themes, which then can be matched with theoretical concepts (Fereday & Muir-Cochrane, 2006). Such theoretical concepts could then be used to guide the initial template development. My initial impression of the data had me divided between two conceptual lenses. Statements like 'a lot of people will take the term of Being Responsible, and actually interpret it for their own area' [Janet, Commercial Support, P36] made me consider the lens of boundary objects influencing communities of practice (Star & Griesemer, 1989; Wenger, 2000). Other statements closely related to actor-network theory.

Interviewees often described how the device made them enact responsibility-sustainability: 'Being Responsible, it's just driving us to make sure that we're doing things (...) good employer (...) local communities (...) wind turbine (...) solar' [Trevor, Supplier Company, P58]. Just one well-matching conceptual lens could not be identified at this stage. Either one seemed to fit fairly well, but not well-enough to organize the entire template around it.

Given the ambiguous relationship of explored data to multiple potential lenses, the initial template was developed inductively (Pehlke, et al., 2009). I clustered similar statements from the pilot coding into themes and also made promising individual codes to themes. This resulted in seven initial themes. To keep them flexible, the themes were not given titles until much later in the coding.

- **3.** Coding and Revisions: In the main coding round all statements were coded starting from the initial template. Newly-coded statements were used to continuously revise and refine the initial template. Similar descriptions were clustered under the themes describing the distinct agency types. Where they did not fit, new themes were opened. Overly heterogeneous themes were split up. In the last stage of this process, the template consisted of eight themes. However, several of these themes were very similar. This meant they could be unified. For instance, the themes 'creating connections' and 'structuring' could be unified as one theme titled 'connecting & structuring'. The outcome was the five themes in Table P5. 2.
- **4. Finalizing template:** Table P5. 2 was reviewed several times to adjust codes that did not quite fit their themes. The table also was included in an earlier version of this paper. The version went through one round of reviews for a special edition of the journal Long Range Planning. The template was also discussed during my annual PhD progress meeting in 2014. The feedback received served to further refine the statements in the template until it arrived at its current form. The final step was to triangulate the template themes with the conceptual lenses that had originally been considered after data exploration. It became clear that the boundary object and community of practice lenses did fit only one of the final themes. Actor-network theory, however, appeared a very close fit. Particularly, a wealth of concepts from Callon's (1986a; 1991) translation modes (e.g. problematization, interdefinition, disassociation) were very present across themes. Table P5. 2 makes reference to translation concepts by matching them to themes in the left column.

It becomes clear from this description of the analysis process that this research project was not conducted in the linear way. It evolved in recurrent cycles between induction and deduction. The research questions stated above partly emerged from and were continuously refined through the thematic analysis, as much as they also guided the analysis process. This also implies that the lens of actor-network theory this *paper* was started with, was not the starting point of the research project. As outlined above, it originally was just *one* promising candidate.

# **Inscription: What the Device Was [RQ1]**

The first question was aimed at studying 'what the device was'; its inscription and implicit potential to build actor networks: 'Was the device inscribed with a coherent responsibility-sustainability logic and had the potential to make actors enact it?' The answer to this question can be split up into two parts. I will first discuss the devices responsibility-sustainability logic as it is made explicit through the cares inscribed into it. In the second part, we will make visible the device's implicit inscription. It constitutes the device's potential to make other actors enact its responsibility-sustainability logic.

# Explicit Inscription

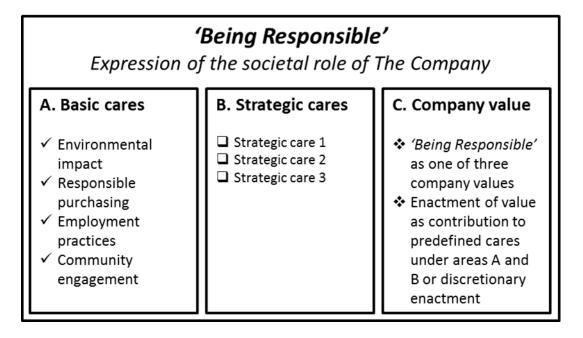
The explicit inscription of the device consisted of three main areas (Figure P5. 1). In the area on the left, the inscription covered 'basic cares' of responsibility-sustainability. These represented baseline cares that the company was widely expected to address. The basic cares were environmental impact, responsible purchasing, good employment practices and community engagement. In the middle of the device were three strategic cares. They were understood as opportunities to proactively make a major social impact through The Company's unique strengths and resources. These strategic cares had been derived from an extensive stakeholder consultation. The aim was to identify cares where The Company could make a unique impact:

'The world has changed, now companies have the power to solve societal issues and they cannot be solved without companies.' [Jacob, CRS Team, P7]

The choice of the strategic cares was partly driven by the wish to achieve reputational gain. One interviewee stated that 'understanding our issues for our reputation (...) was one of the things that drove the development for "Being Responsible"' [Nancy, Corporate Affairs, P22].

On the right of the device, we see that it positioned 'Being Responsible' as the new, third value of The Company. This opened up the possibility for any employee to contribute to any of the basic or strategic cares. It also encouraged them to engage in discretionary activities under the 'Being Responsible' value umbrella. The explicit inscription of the device was these three areas and the responsibility-sustainability cares gathered under them. This inscription represented a coherent logic. It constituted The Company's responsibility-sustainability logic. This logic was connected through the headline of the device and the common theme among all three areas, 'Being Responsible'. Together, this was the explicit inscription of the device, but with it also came an implicit inscription.

Figure P5. 1 Explicit Device Inscription



## Implicit Inscription

Each of the areas and cares of 'Being Responsible' implied distinct latent relations to specific actors across The Company. Figure P5. 2 illustrates this implicit inscription as a network of latent actor relations. These relations are implied by the explicit inscription. This 'implicit' inscription resulting from the explicit inscription was equally important. The potential of the device to build an actor network enacting responsibility-sustainability depended on these latent relations.

For instance, the 'responsible purchasing' care related specifically to the purchasing department as an actor. The 'employment practices' care related to human resources. One of the strategic cares related to the product development department and another one to logistics. Another type of latent relation existed to governance devices

which were understood as central actors in The Company. An example was the strategic cares with their quantifiable goals. These goals lent themselves to becoming key performance indicators as they were common in The Company. Such performance indicators would come together in the company-wide balanced scorecard, another governance device actor. Another example is the introduction of 'Being Responsible' as third value. This value automatically related to the other two values of The Company's value statement. These relations to the governance devices also served as intermediaries to connect to the two main groups of human actors in The Company. The values statement was most strongly enacted through operational employees. Executives were guided by key performance indicators (KPI) on the balanced scorecard. Rosie, an executive from Human Resources had described this as 'KPI my world' [P66].

This implicit device inscription was a decisive element of the device's potential to quickly translate into The Company's actor network. The device's latent relations may be seen as potential 'easy wins'. Enacting, or rather 'activating' them is likely to require less effort than to make an entirely unrelated actor enact responsibility-sustainability. The strong 'implicit inscription' of the device may partly explain the initial observation about the speed and reach of 'Being Responsible' made by Jay from Corporate Affairs: 'Would we have gone as far, as quickly and with such breadth? (...) almost certainly not' [P23].

The latent relations described above were of 'device-external' nature, to other actors in The Company. However, Figure P5. 2 also reveals internal relations between elements of the device. For instance, the 'environmental impact' care not only related to device-external actors (supply chain and operations management). The care also connected device-internally to 'strategic care 3'. A side effect of this care was to make a positive environmental impact. A similar internal relation existed between the basic care of 'employment practices' and 'strategic care 2'. The reason is that the strategic care strongly benefitted employees. Similarly, the 'Being Responsible' value was related to both basic and strategic cares. Employees enacting the value were encouraged to contribute to both areas. However, as the external latent relations, also these internal latent relations had to become enacted to build an actor network.

These internal and external latent relations inscribed into the 'Being Responsible' device illustrate an important conceptual point. Devices, particularly textual devices like 'Being Responsible', are not only an actor in a network. They also *are* actor networks (Callon, 1991; Callon & Law, 1997; Law, 2009). Texts are made up of a number of distinct

elements. Each element such as the cares may be an actor in its own right. Accordingly, inscribing textual devices means constructing a (latent) actor network. Leaving out or adding a piece of text will change the nature of this actor network. Such decisions while shaping devices/actor-networks influences their capability to enrol other actors to enact their logics.

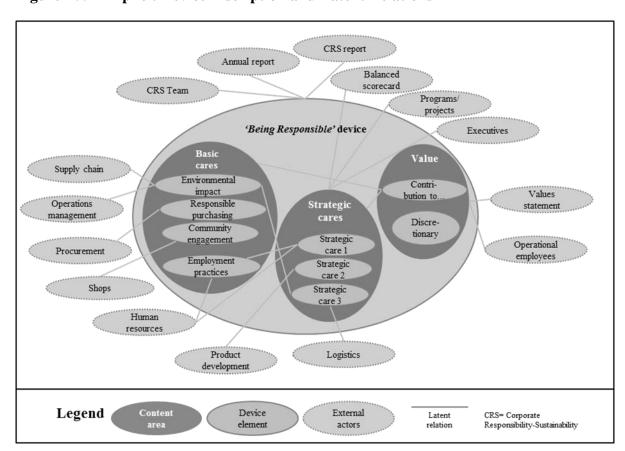


Figure P5. 2 Implicit Device Inscription and Latent Relations

We can now answer the first research question: 'Was the device inscribed with a coherent responsibility-sustainability logic and had the potential to make actors enact it?' [Inscription- what it is]. We have seen that the 'Being Responsible' device was inscribed with a coherent responsibility-sustainability logic. It had identified an exhaustive set of interrelated responsibility-sustainability cares constituting its responsibility-sustainability logic. We have also seen how the inscription constructed a network of implicit relations. This showed the potential of its responsibility-sustainability logic to relate to key actors of The Company's actor network. Actors included, for instance, main departments (logistics, human resources, product development, etc.) and distinct human actor groups (e.g. executives and operational employees). The inscription also connected to a number of devices governing The

Company (e.g. balanced scorecard, reports, values statement). It also related to The Company's shops as well as to actors beyond its direct boundaries, such as the supply chain. We may conclude that the device showed much relational potential to construct an actor network enacting responsibility-sustainability. However, the device's inscription cannot change The Company, if the device does not actually 'go social'. It has to develop agency engaging in translation with The Company's actor network to realize the latent relations 'slumbering' in its inscription.

# Agency: What the Device Did [RQ2]

The second question was aimed at studying if and how the device facilitated the enactment of responsibility-sustainability. This question is about 'what the device did', its agency: 'How did the device exert agency to construct an actor network that enacted its responsibility-sustainability logic?' To construct actor-networks based on its inscription, a device has to be involved in translating its inscription into enactment by an actor network. The Being Responsible' device needed to develop agency that facilitated such processes of translation for its responsibility-sustainability inscription. To 'do' things that lead to the enactment of responsibility-sustainability.

This section is aimed at answering this research question by exploring how the 'Being Responsible' device developed agency to construct actor-networks. I identified five types of agency inductively from interviewees' responses (Table P5. 2). These types were theoretically anchored *ex-post* using Callon's (1986a; 1991) description of elements of the translation processes for constructing actor networks. A main finding was a close resemblance between the agency description of 'Being Responsible' through the interviewees and Callon's moments of translation. As indicated in the left column of Table P5. 2, the agency types resembled the translation concepts of problematization, interdefinition, creating obligatory points of passage, disassociation and convergence-alignment. This suggests that 'Being Responsible' was engaged in a translation process, constructing an actor network. Given its inscribed responsibility-sustainability logic it was constructing an actor network enacting responsibility-sustainability.

It follows a description of the five types of agency: Starting conversations [A], connecting & structuring [B] motivating enactment [C], legitimizing & enabling [D] and framing & aligning [E]. It will also be illustrated how each of these agency types related to

translation. This illustrates 'what Being Responsible did', how the device developed agency to construct a responsibility-sustainability actor network.

## Starting Conversations [A]

The first agency type was starting conversations. These conversations were often closely related to putting 'Being Responsible' on the agenda of important actors. It is closely related to Callon's (1986a) problematization, which he describes as the starting point of the translation process. Problematization refers to the process in which key actors construct a shared understanding of the problem(s) which the network's will solve. It is a prerequisite for assembling an actor network. This process is very present in the statement that 'Being Responsible' 'came out of recognising we have a problem' [Jay, Corporate Affairs, P23]. Problematization involved negotiating and defining what the underlying problem to be solved by 'Being Responsible' was. It also involved what problems it would solve for the actors to be enrolled. Problematization had already begun during the development of the device. Developing 'Being Responsible' had brought together a committee of individuals representing main actors to be enrolled into the 'Being Responsible' actor network. This initial group included executives from important company departments, external specialists, members of corporate affairs and the CEO. Conversations between them were about problematization. A main topic was what strategic cares (social problems) 'Being Responsible' should address. It was also discussed how each care would relate back to particular issues of the actors involved? The program was launched later the same year at a massive event involving The Company's entire management community. Here, the problematization process was carried into the larger business. One attendee of this event described it as follows:

'So everyone heard it, and everybody got it (...) everybody said alright, it's all part of Being Responsible, and everybody goes, oh yes, okay, I know what that is' [Kathy, Commercial Support, P25].

However, there also were worried voices, indicating that 'Being Responsible' might not only solve, but also cause problems for some actors. For instance, a representative of an area that would be affected strongly by one of the strategic cares reportedly 'muttered under his breath, well that's me in trouble now' [Jacob, CRS Team, P7]. This statement was an early sign of the tensions to be expected in the course of translating 'Being Responsible'.

# Connecting & Structuring [B]

The second agency type of *connecting & structuring* was closely related to what Callon (1986a, p. 60) calls 'interdefinition of actors'. It is the process of proposing a structure of associations between actors, and defining roles in the network for each actor. 'Being Responsible' assumed the role of an intermediary device (Callon, 1991). It constructed associations between actors who/that were central to the enactment of its responsibility-sustainability logic. As an interviewee observed, 'Being Responsible doesn't sit over everything, but (...) it helps connect things' [Kathy, Commercial Support, P25]. It was a 'strapline' [Lilly, Subsidiary Company, P52; Sean, Customer Relations, P53] or 'slogan' [Carrie, In Shop, P50].

'Being Responsible' not only provided particular actors with an identity in the responsibility-sustainability actor network. It also constructed a shared identity of the larger actor network. It defined roles for actors and actor groups. 'Being Responsible' provided actors with a 'plan (...) what we're doing and how to stick with that agenda' [Dana, Supplier Company, P70]. It also standardized roles for particular actors through 'blueprints' [Loraine, Human Resources, P67]. The term describes documents used to define operational procedures. Actors accepted or rejected the roles depending on the degree to which they were motivated to assume them. This closely relates to the next type of agency.

## Motivating Enactment [C]

'Being Responsible' also developed agency by motivating enactment by key actors for whom it had previously not been on the agenda. Callon (1986a, p. 59) calls this the creation of 'obligatory passage points'. 'Being Responsible' was made into something that the actors had to be enrolled in, to achieve their own goals. Figuratively speaking, they had to 'pass through the Being Responsible gate' in order to get to what they wanted. It had to become an 'indispensable' initiative for them to be involved in. Motivating enactment happened in many different forms. For instance, executives had 'Being Responsible' key performance indicators. Employees on lower hierarchical levels had to 'do' 'Being Responsible' as it was one of the three company values. Addressing the value helped to achieve their goal of being evaluated well on compliance with company guidelines as described by a subsidiary employee:

'Because it's one of our values (...) it gives you some direction as to what you need to do and how you need to do it' [Jamal, Human Resources, P45].

People in the CRS Team typically had the promotion of 'Being Responsible' included in their job descriptions. For instance, a regional responsibility-sustainability manager stated that 'it was quite easy for me to accept Being Responsible (...) okay, this is our strategy we need to go through this' [Polina, Subsidiary Company, P38]. There also was an appreciation of employees' intrinsic motivation to do good, which they could satisfy through 'Being Responsible'. An internal survey during the course of the development of 'Being Responsible', had found that 'employees are motivated to do something for societal causes. (...) The world has changed, now companies have the power to solve societal issues and they cannot be solved without companies' [Jacob, CRS Team, P7]. Through 'Being Responsible' employees with the intrinsic goal of doing good had a vehicle to fulfil this personal goal. They could do something good and have their efforts scaled up through the power and reach of The Company.

# Legitimizing & Enabling [D]

Related to the point about intrinsic motivation, 'Being Responsible' also developed agency for legitimizing & enabling. It 'freed' actors who were motivated to develop responsible activities from forces discouraging their enactment: 'There's probably more freedom for the teams to take the overall banner of Being Responsible' [Janet, Commercial Support, P36]. The strong culture of commercial effectiveness and efficiency in The Company was one of such discouraging forces. It had led to a work environment, where engaging in responsibility-sustainability cares was considered illegitimate. From a commercial point of view, it was seen as counter-productive; a distraction from commercial goals. Through the agency of 'Being Responsible', engaging in responsibility-sustainability cares became legitimate. This is exemplified by the statement of an employee who had launched a volunteering campaign in his department:

'It made it much easier for me to create time for it and for me to just go to my boss and say (...) look, it's aligned with exactly what The Company wants me to be doing. That was fantastic. So having that there as an excuse to go and do these Being Responsible things' [Martin, Infrastructure Team, P47].

'Being Responsible' as an explicitly recognized and promoted company program not only freed people to engage in cares. It also provided them with access to multiple types of 'resources' [Peter, Infrastructure Team, P64]. This included not only 'money' [Anna, Human Resources, P59], but also 'time' [Martin, Infrastructure Team, P47; Lara, CRS Liaison, P44], 'data' [Rosie, Human Resources, P66], and manpower [Kathy, Commercial

Support, P25; Janet, Commercial Support, P36] to support their responsibility-sustainability engagement. In translation terms, this type of agency reflects Callon's (1986a; 1991) process of 'interessement'. Interessement is derived from the Latin word inter-esse meaning to be in between two things. 'Being Responsible' went in-between actors and their associations with the competing commercial network which may consider socially minded activities as illegitimate. 'Being Responsible' as 'interessement device' (1986a, p. 64) supported the enrolment of actors into the responsibility-sustainability network. It freed them from conflicting associations.

# Framing & Aligning [E]

The agency of *framing & aligning* is closely related to Callon's (1991) notion of creating convergence. Convergence is the *'extent to which the process of translation (...) leads to agreement'* (p. 144), in our case agreement about *'Being Responsible'* and its role in The Company. According to Callon, convergence is achieved through alignment between actors. Alignment in turn fosters agreement by resolving controversy about what *'Being Responsible'* is and about which actors play a role in it. A supplier had expressed this as follows: *'I suppose, so that we can align ourselves (...) what we're doing and how to stick to that agenda'* [Dana, Supplier Company, P70]. Similar alignment processes were often described as *'focusing'* of activities [Nancy, Corporate Affairs, P22; Polina, Subsidiary Company, P38; Linda, CRS Liaison P68]. Focusing invariably led to discontinuing some activities that were not aligned with the emerging agreement:

'Refining what we did, closing down some of the projects that weren't as linked to Being Responsible (...) to do fewer things (...) you need focus on what you're doing' [Linda, CRS Liaison, P68].

The alignment process also required re-framing existing actors' identity and agency. This way they could play their role in the 'Being Responsible' actor network. This point is well illustrated through the statement by Lilly from a Subsidiary: 'I think we've been doing it anyway, it just maybe rebranded under this [Being Responsible]' [P52]. Another example is where programs in the human resources area were 'relabelled' as 'Being Responsible' [Jamal, Human Resources, P45]. In yet other examples 'Being Responsible' was made the name of certain departments and roles, explicitly aligning their identities with the 'Being Responsible' actor network [Ruth, CRS Liaison, P26].

Table P5. 2 Types of Agency of the 'Being Responsible' (BR) Device

Agency type  →translation concept	Exemplary quotes	
A. Starting conversations [BR adds to a perception of relevance of the initiative which facilitates conversations.] →problematiza- tion	[P9] BR () it's always aboutthe first line is always about, these are the three aspirations, () that's the hook.  [P23] [talking about BR actions] Those things for me are much more powerful conversation starters because that's how you get the emotional reaction.  [P23] this came out of recognising we have a problem () that gives it credibility.  [P23] but just the presence of having a document. () just having a one page infographic or something that you can show them.  [P25] I'm probably listened to more because there is a BR initiative  [P25] so everyone heard it, and everybody got it () everybody said alright, it's all part of BR, and everybody goes, oh yes, okay, I know what that is.  [P59] But I do think that I've never once had to try and convince somebody about the benefits of doing a community project in The Company.	
B. Connecting & structuring [BR serves as an ordering entity, creating coherence.] →inter-definition	[P25] So BR doesn't sit over everything, but () it helps connect things. [P51] BR, () once you understand what it's about it's a very good slogan. [P52] I can't think of another strapline to summarise it. [P53] 'BR' is the term of actual, how we're going to give back () the strap line and then under that the three clear projects that we are doing. [P67] I think it's included in some of our blueprints as well () once you're emerged in the culture, you understand it and you get it. [P65] But I think you'll find that most of these aspirations were ticked beforehand. It's just now that there's more of an approach on it, [P70] I know that's an area within BR and then there's the whole CSR plan that they have. () what we're doing and how to stick with that agenda. [P71] all focused on helping, you know, () tying that in to the () wider BR ethos ().	
C. Motivating enactment [BR inspires actors to do things they would not have done otherwise, or to act differently.]  → creating obligatory points of passage	[P37] I remember thinking to myself that the potential () to use their BR in the supply chain is enormous. [P38] it was quite easy for me to accept BR () okay, this is our strategy we need to go through this. [P45] Because it's one of our values () it gives you some direction as to what you need to do and how you need to do it. [P52] they share that with the whole business and kind of engage us in how we're being responsible. [P58] I think the link is with the BR strategy, it's just driving us to make sure that we're doing things. [P66] So because BR is there it means () probably we push harder on it because that's a key part of it. [P68] we have to do this because it's part of our BR strategy () they understand that that's the right thing to do and they want to do it for that reason. [P70] the, kind of, initiatives that I mentioned already are things that we've introduced as a result of BR.	
D. Legitimizing & enabling	[P25] you could go and have a conversation about BR, and The CEO had already set the scene.	

[BR legitimizes intended action, or enables improved enactment.]

→ disassociation

[P36] there's probably more freedom for the teams to take the overall banner of BR.

[P44] by saying to shops it's okay for you to go and spend a day in your community is the right thing for us to do.

[P47] it made it much easier for me to create time for it and for me to just go to my boss and say (...) look, it's aligned with exactly what The Company wants me to be doing. That was fantastic. So having that there as an excuse to go and do these BR things.

[P59] So it's a lot of money (...), but because this is how The Company wants to do business [BR]

[64] It's (...) what resources have I got available to me to be able to give back my best to our local community for our BR.

[P66] BR has allowed us to have a level of reporting and data that we'd never had.

E. Aligning & framing [BR provides an identity to the ones enacting it, and serves as orientation on how to enact this identity.]

→convergence/

[P22] It makes it easier for me, because it's a more focused strategy. Its focus is on issues that make sense for The Company.

[P25] I might have some BR in my objectives, (...) but actually it's more likely that (...) some of it I would be doing anyway.

[P26] Absolutely, it's in our team name, it's in our role names, so we use it internally.

[P36] And so, from that, I feel like a lot of people will take the term of BR, and actually interpret it for their own area (...)

[P38] BR is our base. So we are focusing all the time about BR.

[P45] It re-labels what we do.

[P52] I think we've been doing it anyway, it just maybe rebranded under this [BR].

[P68] we've spent quite a lot of time over the last year refining what we did, closing down some of the projects that weren't as linked to BR. (...) to do fewer things (...) in order to do that, you need to have a strategy of some, kind of, you need focus on what you're doing.

[P70] I suppose, so that we can align ourselves (...) what we're doing and how to stick to that agenda.

### **Discussions**

alignment

The above answers to the research questions also imply further contributions to discussion. In the following two sections the focus will first be on how device agency as 'translation' contributes to the discussions on textual agency. The second discussion connects the findings on the agency of the responsibility-sustainability device to the business model devices discussion. It raises the question how responsibility-sustainability devices may develop agency to change a business model.

Textual Devices Constituting Organization?

The 'Being Responsible' device was a text. The initial quote had highlighted the impact it had on the progress of responsibility-sustainability. This quote had made an explicit connection to the role of the text that was not mentioned before:

'Without Being Responsible (...) would we have gone as far, as quickly and with such breadth? (...) almost certainly not (...) you've got this weighty, thoughtful document (...) or (...) just having a one page infographic (...) that you can show' [Jay, Corporate Affairs, P23].

The finding that 'Being Responsible', a textual device, developed agency to construct a responsibility-sustainability actor network, contributes to the textual agency literature. This literature describes how texts such as the 'Being Responsible' device, a document, develop agency. It studies how they 'do things in organizational settings' (Cooren, 2004, p. 373). They may even change organizations (Cooren, 2015). A related literature considers such texts 'devices' with agency that may change organizations (Cooren, et al., 2007). It is centred on the question how these texts constitute organizations through their agency (Cooren, 2004; Cooren, 2015). Cooren focuses on text-centred discourse as construction process. This paper offers a distinct explanation for how a device may constitute organization. It may do so through translation and by constructing actor networks. These actor networks constitute organizations through their enactment. This discussion may be enriched further through the typology of distinct agency types of the 'Being Responsible' device involving in translation.

Further research might look into how the text not only translates into the actor networks enacting the organization. As illustrated in the first findings section, texts themselves *are* actor networks (Law, 2009). We find these actor networks when opening up the 'black box' of a text as we did with the 'Being Responsible' device. This may help to develop an even more refined understanding of how actors 'inside' a text build relations to actors outside the text. Analyzing the internal actor network provides a more differentiated understanding of the agency of text-internal actors.

From a practitioner point of view these insights may also provide guidance for shaping textual actors. Inscribing texts, for instance, when shaping a strategy document, may lead to more powerful change devices. The construction of such devices may benefit from thinking about them as actor networks (see answer to first research question). Paying attention to devices' implicit inscription and latent relations may greatly influence the effectiveness of such devices. An example is what would have happened if the device creators at The Company had not inscribed 'Being Responsible' as value into the device. It is likely that much of the enactment among operational employees would not have taken place. Inscribing the 'value actor' with its latent relations into the device considerably

changed the device's effectiveness. Without the inscription of this actor into the device, The Company most likely would be a less responsible and less sustainable business.

Responsibility-Sustainability Devices Changing Business Models?

Business model change towards responsibility-sustainability is aspired by both the practitioner and academic responsibility-sustainability communities. This paper has shown how the 'Being Responsible' device developed agency. It acted to build an actor network that enacted responsibility-sustainability. 'Being Responsible' was an actor and involved in translation. However, this does not necessarily mean that this translation had led to business model change. Only if it could be confirmed that 'Being Responsible' changed the business model actor network, we can claim that it was a business model change device. 'Being Responsible' developed agency to build an actor network according to its inscribed responsibility-sustainability logic, but did it change the business model actor network? The next paper is centred on this question.

### **Conclusions**

This paper has studied The Company's corporate responsibility-sustainability device titled 'Being Responsible'. We have seen how the device had carried an explicit inscription. This inscription established an interrelated responsibility-sustainability logic consisting of coherent responsibility-sustainability cares. We have also discovered the device's implicit inscription giving it potential to relate to key actors of The Company. We have learnt that the device had developed five types of agency. These agency types closely related to Callon's (1986a) 'four moments of translation'. These are necessary for translating an inscription to enactment.

Accordingly, the 'Being Responsible' device was involved in translation. It constructed actor networks, enacting the responsibility-sustainability logic that had been inscribed into it. These findings also contribute to understanding the initial problem of understanding 'how a responsibility-sustainability device like Being Responsible may construct an actor network that enacts its responsibility-sustainability logic'. Such devices may construct responsibility-sustainability actor networks through processes of inscription and translation. These findings also provide an explanation for the initial observation by Jay from Corporate Affairs, that 'without Being Responsible' [P23], responsibility-sustainability would be much less enacted in The Company.

These findings contribute to the literature on textual agency by proposing actornetwork construction as an alternative construction process to discourse. They also contribute to the literature on and practice of implementing corporate responsibility-sustainability. Researching and using devices appears a promising approach for both theory and application. Particularly, studying and shaping devices' implicit agency may provide novel theoretical insights and practical advances. As mentioned in the abstract, this paper is first in a 'trilogy' of papers. All three together explore the embedding of responsibility-sustainability in The Company and how this related to business model change. The following paper will focus on the question if the agency of 'Being Responsible' studied in this chapter had led to business model change.

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# PAPER 6. HOW A DEVICE CHANGED A BUSINESS MODEL: EMBEDDING RESPONSIBILITY-SUSTAINABILITY INTO ACTOR-NETWORKS

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## **Abstract**

This paper is an in-depth case study of business model change through the embedding of responsibility-sustainability. It is based on data collected while following the responsibility-sustainability<sup>1</sup> program 'Being Responsible' through The Company<sup>2</sup>. A 30months data collection led to 104 interviews with 72 individuals across The Company. The first finding is that The Company's business model was internally known and enacted as a network of human and nonhuman actors. The second finding is that 'Being Responsible' participated in the business model actor network and made actors enact responsibilitysustainability. By doing so it simultaneously embedded responsibility-sustainability and changed pervasively, albeit incrementally The Company's business model actor network. These findings contribute to the business model literature by foregrounding the role of devices in business model change and by showcasing the potential of an actor network methodology for business model research. It also contributes to the literatures on embedding corporate responsibility-sustainability and on organizational tensions. This paper is the second out of a trilogy of papers studying embedding and business model change in The Company. The third paper will connect the findings from the first two papers in a conceptual model.

## **Keywords**

business model change, actor network theory, devices, corporate responsibility, corporate sustainability, circulation, translation, embedding

<sup>&</sup>lt;sup>1</sup> The term responsibility-sustainability is meant to capture the entangled nature of both topics.

<sup>&</sup>lt;sup>2</sup> Re-named to ensure anonymity of The Company

## Introduction

'Being Responsible is part of our whole business model. (...) all the work that we do that is like a strand that goes through every area, every function (...) the core purpose and what it is that we stand for. (...) that's our business model and our strategy and how we approach business (...) Being Responsible becomes a fine common thread throughout.' [Anna, Human Resources, P59]

*'Being Responsible'* was the name of The Company's corporate responsibility-sustainability<sup>3</sup> program. Anna quoted above claimed that it had become embedded into The Company's business model. Assuming her observation is accurate, leads to an intriguing question:

How had the corporate responsibility-sustainability program become embedded into the business model?

'Being Responsible' in The Company had been introduced as a one-page strategy document describing the different responsibility-sustainability cares addressed by The Company. They included, for instance, community engagement, environmental impact and responsible employment practices. The business model literature has recently recognized that 'devices' may take part in business model actor networks. This includes, for instance, power point presentations, products, or also strategic documents just like 'Being Responsible'. Devices may 'create' (Doganova & Eyquem-Renault, 2009) or 'craft' (Demil & Lecocq, 2015) the actor networks enacting a company's business model. According to Randles and Laasch (Paper 1 this thesis) devices and these business model actor-networks exist in 'continuous interplay' (p. 57). These publications agree that devices and business model actor networks mutually influence each other. However, we know little about the processes of how a device like 'Being Responsible' becomes embedded into a business model actor network. How does it become the 'fine common thread throughout' the business model that Anna [P59] had described?

This paper builds up on the above publications by using an actor-network theory perspective (Callon, 1986; Latour, 2005; Law, 1992). It illustrates empirically what is meant by a business model actor network, through the case of The Company. This insight will then be used to show how devices like 'Being Responsible' may take part in actor

<sup>&</sup>lt;sup>3</sup> I have mostly avoided using the abbreviation of corporate responsibility-sustainability (CRS). The reason is that it is not established and might be confused with corporate social responsibility (CSR).

networks. I will also show how it becomes embedded into the business model actor network, as Anna [P59] had claimed it to be.

## **Business Models through an Actor-Network Theory Lens**

This paper is focused on creating novel insights by contributing to an emerging actornetwork theory perspective on business models. The following sections are brief reviews of the business model literature. They show how it connects to the concepts of actornetwork theory and devices. These sections are aimed at creating a conceptual basis for the study of The Company's business model actor network. They also provide concepts for studying the participation of the 'Being Responsible' device in this business model actornetwork.

## **Business Model Actor Networks**

Before understanding how a device may become embedded into a business model, it appears necessary to explore what a business model actually is. Anna [P59] had described the business model as 'how we approach business'. The business model literature would call this an underlying logic or narrative of a company (Casadesus-Masanell & Ricart, 2010; Magretta, 2002). This logic explains how it proposes, creates, exchanges and captures value (Paper 2, 4). This forms the underlying narrative of what a particular business is and does (Abdelkafi & Täuscher, 2016; Chesbrough & Rosenbloom, 2002; George & Bock, 2011; Johnson, et al., 2008; Teece, 2010; Zott, et al., 2011). Along these lines, Erica working as a CRS Liaison had called it 'the DNA of the business' [P30].

Anna [P59] had exemplified what she considered parts of The Company's business model by mentioning 'areas', 'functions' and the 'purpose'. One out of two prevalent views in the literature explains how a company's business model logic is composed of such 'components' or 'elements' together constituting a company's underlying logic. Typical elements are customers, resources, capabilities, partners, products, a profit formula or distribution channels (Chesbrough & Rosenbloom, 2002; Demil & Lecocq, 2010; Osterwalder, 2004; Johnson, et al., 2008). This first view may be called a 'mechanical' perspective on the business model. The business model components and how they come together are understood to build a company's underlying logic, similar to 'assembling' the parts of a 'machine' (Casadesus-Masanell & Ricart, 2010, p. 199).

The second prevalent view, an 'activity systems perspective' posits that the value logic is rooted in a company's system of activities (Zott & Amit, 2010; Zott, et al., 2011).

This perspective sees 'the logic of the firm' as 'the way it operates' (Casadesus-Masanell & Ricart, 2010, p. 196), as a 'system of interdependent activities' (Zott & Amit, 2010, p. 216). Casadesus-Masanell and Ricart (2010; 2011) exemplify such activity systems through the low-cost airline Ryanair. The company's activities such as short haul flights, not offering meals, and low fixed costs result in a unique value logic of doing business.

This paper is written from a third perspective, which is less established than the previous two. It understands business model logics to be enacted by actor networks (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009; Randles & Laasch, 2015, Paper 1 this thesis). From this 'actor-network perspective' business models are understood in the tradition of 'actor-network sociology' (Randles & Laasch, p. 53, Paper 1 this thesis). According to Demil and Lecocq (2015, p. 36) an 'organization's business model can be considered as a network'. The network consists of human and nonhuman actors (Demil & Lecocq, 2010; 2015). The actors in such business model actor network are 'heterogeneous', meaning they are human and nonhuman (Doganova & Eyquem-Renault, 2009, p. 1559).

This actor-network perspective on business models combines elements of both perspectives mentioned previously. On the one hand, all of the business model *components* from the mechanical perspective may be considered actors. On the other hand, these actors come together in a network. This network has systemic characteristics, not unlike activity systems. Unlike in both other approaches, however, the focus is not on activity, but on the relations between actors. These relations are what ties actors together and constructs the business model. The following section will be an introduction of relevant conceptual tenets of actor-network theory. These tenets are central to an actor-network perspective on business models. They will be the basis for the discussion of The Company case in the findings section.

Actor-Network Theory: Heterogeneity, Punctualization and Devices

Probably the most salient tenet of actor-network theory is heterogeneity. An actor 'can literally be anything provided it is granted to be the source of action' (Latour, 1996, p. 373). As Latour (1996) illustrates, such agency, to be the source of action, is not an exclusive characteristic of human actors. Latour (2005, p. 71) exemplifies how things can be actors too as 'knives cut' and 'soap takes away the dirt'. Of course, without a human being using the knife, the action of cutting would not take place. However, it would not take place either, if there was no knife. Accordingly, the source of the action of cutting is

as much the thing, the knife, as the human being. It is the association between the knife and the person through the act of cutting that makes the action.

We have seen how the association of these two actors through the action established a simple actor network. Actor networks are heterogeneous. They are associations between humans and nonhumans nonhuman (Law, 1992). The list of who or what can be an actor is open ended. Examples are 'objects, subjects, human beings, machines, animals, "nature," ideas, organizations, inequalities, scale and sizes, and geographical arrangements' (Law, 2009, p. 141). The world seen from an actor-network theory perspective is a network of such heterogeneous actors. It is formed through their associations which continuously enact reality. From an actor-network theory perspective, there is nothing outside the actor network. The network is reality; reality is 'actor worlds' (Callon, 1986a, p. 20). In the first part of the findings section we will see The Company's business model through an actor-network theory lens. The business model appears as a network of actors such as 'executive management', 'company identity' and 'the operational model'.<sup>4</sup>

Another main conceptual feature of actor-network theory is *punctualization* or black-boxing. Punctualization and black-boxing are methodological techniques to deal with *'the oxymoron "actor-network"* (Cressman, 2009, p. 3): *'An actor-network is simultaneously an actor (...) and a network'* (Callon, 1987, p. 93). In the findings section we will, for instance, see how *'executive management'* is an actor as it *'does'* certain things. It is a source of action and associates with other actors. However, executive management also is an actor-network enacted by actors. We find this network if we open up the *'black box'* of the executive management actor. We find actors such as the executives, performance indicators to which they align their actions as well as the programs and projects they employ to achieve the indicators. However, often we may not be interested in seeing inside the black box. So we *'punctualize'* an actor network and consider it just one actor. *'Everything is both an actor and a network – it simply depends on perspective'* (Cressman, 2009, p. 7). Understanding actor networks may require the *'simplification'* of

<sup>&</sup>lt;sup>4</sup> This perspective has found its way into organization studies through the lens of 'socio-materiality', where actors are understood to 'form and perform contemporary organizations' (Orlikowski, 2009, p. 125).

punctualization (Law, 1992, p. 385). It may also require opening up the black box of an actor to explore the complex actor-network inside.<sup>5</sup>

A last key conceptual characteristic of actor-network theory for this paper is the role of *devices*. If actor-networks are the associations between heterogeneous actors which enact reality, changing these associations will change reality. In principle, any actor may change the associations. If it does, it becomes a *'primum movens'* (Callon, 1986), a *'change actant'* (Bengtsson & Ågerfalk, 2011). It leads to a distinct actor world, a new reality. One type of actor that is understood to be at the centre of transforming actor networks is the device. Devices are things designed to *'do'* something (Doganova & Eyquem-Renault, 2009). They are *'objects with agency'* (Muniesa, et al., 2007, p. 2). They can be, for instance, products, technologies, or texts. What such devices do depends on the *'program of actions'* (Akrich & Latour, 1992, p. 260), the logic of action *'inscribed'* into them (Akrich, 1992; Akrich & Latour, 1992). For instance, the *'Being Responsible'* device had been inscribed by its creators to promote responsible and sustainable action among other actors across The Company.

Devices take part in the actor network and, through their participation, shape the network. They 'participate in building heterogeneous networks' according to their inscription (Akrich, 1992, p. 206). They may be 'mediators' that create associations between distinct actors (Callon, 1991, p. 133). They 'enrol' actors into the network they are constructing, while circulating through the network (Callon, 1986; Callon, 1991). Devices may also serve to disassociate actors from competing actor networks (Callon, 1986). Distinct to many other actors, devices are mobile. They may circulate cross boundaries between distinct communities of actors (Star, 2010; Star & Griesemer, 1989). Through circulation, devices may translate their inscription across the actors of a network. Through circulation they themselves become translated into the network (Callon, 1986; Callon, 1991). All these processes together have been summarized as processes of 'translation' (Callon, 1986; Callon, 1991).

A 'successful' device may shape a network according to its inscription. It may build a network that enacts its inscription and constructs the reality is describes. In the first findings section we will study The Company's business model actor network. The second

<sup>&</sup>lt;sup>5</sup> As has been illustrated in Paper 5, also *'Being Responsible'* is a punctualized actor network. The *'Being Responsible'* device is the network's *'representative'* (Callon, 1986). The device represents all of the actors enacting the program and the network they form together.

<sup>&</sup>lt;sup>6</sup> Translation has been introduced in depth in Paper 5.

part will explore how the 'Being Responsible' device had enrolled actors of this network to enact responsibility-sustainability. It will also explore how responsibility-sustainability had become embedded into the business model actor network through the agency of the 'Being Responsible' device.

### **Methods**

We had entered this paper with the intriguing question of how responsibility-sustainability devices like 'Being Responsible' may become embedded into a business model. From an actor-network perspective it may be explained through the device's participation in a business model actor network. Through such participation responsibility-sustainability may become translated into a business model actor network. This would explain the process of how corporate responsibility-sustainability programs become embedded into a business model. These considerations lead into two main research questions:

**RQ1:** What and who are the actors of The Company's business model and how are they associated as an actor network? [Actor network]

**RQ2:** How did the 'Being Responsible' device participate in the business model actor network? [Device participation]

These questions are to be addressed through the case study of The Company's 'Being Responsible' program. When first visiting The Company in May 2013, they were about to launch a responsibility-sustainability program titled 'Being Responsible'. The program materially manifested as a document. It was a one-page textual-visual description of the program, the device. The case was especially attractive, due to the envisioned scale and reach of 'Being Responsible'. This made it likely for the program and its device to participate in The Company's business model. The timing allowed for a unique opportunity of longitudinal observation from inception of 'Being Responsible' until its gradual substitution from September 2015 onwards.

A single, in-depth case study design was chosen. It included two units of analysis (Yin, 2003), the business model actor-network and the 'Being Responsible' device. The constructionist nature of actor-network theory (Latour, 2005) is considered in the way the case study was conducted. Case design was oriented towards Scapen's (2004) guidance for 'interpretivist case studies' and towards Järvensivu and Törnroos' (2010) 'case study research with moderate constructionism'. Data analysis and theorizing was informed by

Eisenhardt and Graebner's guidance for theorizing from case studies (Eisenhardt, 1998; Eisenhardt & Graebner, 2007).

Data collection was centred on the actor-network methodology mantra to 'follow' the actor' (Cressman, 2009; Latour, 1987). Following the 'Being Responsible' device actor, led the way in the exploration of the actor network through which it circulated. Accordingly, it was not predefined, which sites inside and potentially outside The Company the data collection would include. The one exception was the point from where the device had started to circulate, the CRS<sup>7</sup> Team in corporate affairs. Latour (2005, p. 313) considers pre-establishing the boundaries of an actor-network 'a grave methodological mistake'. 'The observer should not exercise censorship' which she would if certain parts of the network were excluded upfront (Callon, 1991, p. 143). This advice led into a sampling where in a first phase interviews were conducted with CRS Team members. In the second phase, interviews involved people the 'Being Responsible' team and device would directly interact with. From there on the interviews were conducted in wider circles. This involved the second tier, and in some cases up to the fourth tier of interaction. The data collection was stopped when newly identified interviewees were not or only superficially related to the 'Being Responsible' actor network. It also was stopped when data saturation had been achieved for an actor group. This process led to interviews across the groups mentioned in Table 1, such as people in shops, corporate affairs, or human resources. The sequence of the groups mentioned in the table also reflects a rough chronological order of interviews. It also reflects roughly each group's distance from the point of origin, the CRS Team in corporate affairs.

This involvement led to data collection from a deeply immersed position as an 'inside-outsider' member of the CRS Team, following the 'Being Responsible' device across The Company. The interaction was stretched over a period of 30 months, with a total of 11 weeks on site in deep ethnographic immersion. It led to 104 interviews with 72 individuals across The Company. Of the interviewees, 34 were primarily located in a headquarters environment; 21 in an executive management environment; and 16 in a commercial operations environment. This contextual distinction will be important for the later analysis of the 'Being Responsible' actor networks in these locations. Interview data was triangulated through participant observation field notes of approximately 37'000

<sup>&</sup>lt;sup>7</sup> CRS stands for corporate responsibility-sustainability.

words; over 120 internal documents such as reports, presentations, and newsletters; and 71 weekly summaries of external news items on The Company.

**Table P6. 1 Interview Sample** 

Group	Interviews/ interviewees <sup>8</sup>	Interviewees in group	Exemplary job positions
CRS Team	48/14	P7-19, P72	Group sustainability director; stakeholder communication manager; director CRS, international CRS coordinator; supply CO2 manager
CRS Liaison	10/11	P1-P6, P26, P30, P44, P65, P68	Community engagement manager; volunteering coordinator; health manager; local CRS program manager; eco-logistics specialist
Corporate Affairs	5/5	P22-P24, P28, P29	Government relations director; director internal communications; investor relations manager; speech and document writer
<b>Customer</b> <b>Relations</b>	6/7	P31, P33, P34, P39, P49, P48, P57	Brand customer marketing manager; director pricing strategy; customer insight manager; customer hotline manager; digital marketing strategist
Commercial Support	6/6	P20, P25, P27, P36, P41, P69	Brand launch project manager; supplier network manager; communications manager sourcing; scientific support specialist
Infra- structure Team	6/8	P4, P32, P42, P43, P47, P48, P60, P64	Local supplier development; fleet manager; web-distribution infrastructure director; loyalty scheme director; energy management specialist
Human Resources	5/5	P45, P46, P59, P66, P67	Careers program director; human resources development program coordinator; graduates program director; personnel manager property division
Product Team	5/5	P35, P40, P61- 63	Director product unit; product unit procurement manager; product unit areas specialist; unit buying coordinator
In Shop	4/4	P50, P51, P54, P55	Branch director; branch community relations manager; branch customer experience manager; store experience manager; cashier
Subsidiary Company	6/6	P9, P21, P38, P52, P56, P71	Corporate affairs manager Asia Branch; subsidiary communications manager; local CRS manager; subsidiary community manager
Supplier Company	3/3	P37, P58, P70	The Company account manager; operations director; head of sustainability

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<sup>&</sup>lt;sup>8</sup> Individuals from the CRS Team were interviewed multiple times, alone and in group settings. In-between stages of the research project, P5 and P10 had changed jobs from one to another department which is why they were interviewed and counted twice, once in their old and once in their new department.

While both of the two research questions were grounded in the research setting described above, answering each question required a distinct research design. These distinct designs are illustrated in detail in Table P6. 2. The findings from both research questions together provide us with insight into the process of how 'Being Responsible' had translated into and of how it had become embedded into the actor network, which enacted The Company's business model.

## Research Design Question 1

The first research question was focused on identifying the actors of the business model actor network. Addressing it was based on an interview question asked in 52 interviews across The Company. The question was: 'What comes to your mind when I say The Company business model? The question had triggered subjective descriptions of The Company business model from each interviewee's perspective. This type of question is common in constructionist research methodology. The question was aimed at studying the business model as it was perceived and lived by the interviewees (Orlikowski, 2009). Only two of the interviewees did not have an initial representation of The Company business model. They asked 'what do you mean with business model?' [Polina, Subsidiary Company, P38; Mary, Product Team, P63]. Nevertheless, they were able to illustrate their interpretation after being provided with prompts. The prompts were 'the way The Company is run', and 'the core logic of The Company'. The answers were analyzed in four steps, suggested by the thematic template analysis method. Thematic template analysis is centred on developing a coherent template of interrelated themes (King, 2004; 2013; Boyatzis, 1998; Braun & Clarke, 2006; Crabtree & Miller, 1999). In our case the themes developed would be the actors of the business model.

The first step 'data exploration', was to extract actor descriptions from the longer answers. Latour's (2005, p. 71) metaphor for identifying actors through their action served as orientation: 'Knives cut.' Knives are actors as they embody the agency of cutting. In The Company case a similar actor identification scheme was used. For instance, performance indicators were considered actors as they 'drive behaviours from all commercial and marketing teams' [Jessy, CRS Team, P15]. Another example is a report as it 'tells me how you are managing' [Nancy, Corporate Affairs, P22]. Shareholders 'make sure you're making money' [Callum, Product Team, P35].

In the second step of 'initial template development', these actors were clustered inductively using ten interviews as a pilot dataset. The clustering followed the 'Gioia'

method for inductive qualitative research (Gioia, et al., 2012). From this clustering emerged 25 actors such as 'executives', 'balanced scorecard', 'performance indicators', 'programs/ projects'. These actors formed the themes of the initial template.

In the third step 'coding and revision', the initial template was continuously adjusted, while coding data from all interviews. The overall number of themes in the template arrived at 54 after including all data. These themes/actors were then refined and re-clustered to form larger actors that could be punctualized. For instance, 'executive management' described before was a punctualized actor (see Figure P6. 1). Which actors would be punctualized was decided upon the associations that interviewees had described between these actors. For instance, executive interviewees had repeatedly described how they align their behavior with performance indicators. These indicators are summarized in the balanced scorecard. The indicators often result in programs and projects initiated by executives. Accordingly all these actors together, executives, performance indicators, scorecard, programs and projects could be punctualized as one actor. The actor was called 'executive management'.

In the fourth step 'template finalization', the template arrived at the 28 actors clustered as 7 punctualized actors. The template is visualized in Figure P6. 1. Using participant observation data and interview descriptions these actors were interrelated. Their associations were transferred into the illustration of an actor-network map (see Figure P6. 2). In the map, the actors could be punctualized further resulting in just five main actors. The map illustrates The Company's business model actor network as it was constructed from all answers.

## Research Design Question 2

The second research question was focused on the participation of the device in the actor network that had been identified through the first research question. All 72 interviewees were asked questions concerned with what actors the 'Being Responsible' device related to.

In an initial phase the interviews involved only the members of the CRS Team. After a short explanation of what was meant by actors, they were asked: 'Which ones are the actors that are already working with/for you?' This led to an initial rough map of the actors enrolled in 'Being Responsible' from the perspective of the CRS Team (14 interviewees). This initial map was constantly adapted to reflect insights from subsequent interviews across The Company (58 interviews). The first relevant question during these

interviews was 'How does what you do relate to Being Responsible'. This was a question about the association of their own activity with the program. The second question was 'Who/what are actors you have on board to contribute to Being Responsible'. This second question was aimed at discovering further actors. It also served to trigger recommendations for interviewing these further actors.

From the body of interviewees' descriptions it became apparent that 'Being Responsible' participated in the form of three distinct translations. Each translation corresponded to a distinct punctualized actor of the larger business model actor network. These translations were the original device, the 'Being Responsible' document in the 'corporate headquarters' actor; the 'Being Responsible Performance Indicators' in the 'executive management' actor; and the 'Being Responsible Value' in the 'commercial operations' actor. Figure P6. 3 maps how 'Being Responsible' had been translated into each of the actor-networks inside these three actors. Each of the three also had been found to be actors enacting The Company's business model studied for the first research question.

Table P6. 2 Research Designs per Question

	RQ1 [Actor network]	RQ2 [Device participation]
Data	Fifty-two interviewees across The Company (excluding CRS Team); Interview question: 'What is the business model to you?'	Interviews with 72 interviewees and participant observation; following the device to where it went and asking what it did.
		a) Fourteen interviewees in the CRS Team b) Fifty-eight interviewees across The Company
Analysis	Thematic template analysis: a) inductive clustering of individual and punctualized actors (Figure P6. 1) b) Mapping relationships between actors as an actor-network (Figure P6. 2)	Connecting the actors enrolled in 'Being Responsible' through their associations described by interviewees. Actor-network mapping of how 'Being Responsible' had been translated into three of the punctualized actors of The Company's business model (Figure P6. 3).
Findings	The Company's business model is enacted through a network of five main punctualized actors: 'Corporate headquarters', 'executive management', 'commercial operations', 'marketplace' and 'The Company characteristics'	<i>'Being Responsible'</i> is translated into three punctualized actors of the business model:
		1) 'Being Responsible strategy' in the corporate headquarters
		2) 'Being Responsible Indictors' in executive management
		3) 'Being Responsible Value' in commercial operations

### Case Context

The Company was a multinational corporation. It was an industry leader both in its home market and globally. The Company had several global subsidiaries. It also had diversified into subsidiaries in industries distinct from its core business. It had much experience with establishing corporate responsibility-sustainability programs. Some of their past programs had been pioneering in its industry and home market. However, The Company had also received criticism for particular practices that were considered irresponsible.

When starting the research project, The Company was establishing a comprehensive, organization-wide responsibility-sustainability program. The program was aimed at creating change at all levels across The Company. The depth and breadth of this program was unprecedented for them. The program was introduced in the form of the 'Being Responsible' device, a one-page textual-visual description. As described in depth in Paper 5, the device consisted of three areas. First, it described a list of basic responsibility-sustainability cares. Examples are environmental impact, responsible purchasing and community engagement. Secondly, it included a set of strategic cares. These cares were understood as opportunities to make a large positive social impact. Last, the device also introduced 'Being Responsible' as a third value of The Company.

The following case description explores how 'Being Responsible' had been embedded; how it had become 'part of our whole business model.' [Anna, Human Resources, P59]. The following two sections will first establish an appreciation of the business model actor network [RQ1]. We will then trace how 'Being Responsible' took part in and became embedded into this network [RQ2].

## **Business Model Actor Network [RQ1]**

#### Actors

As illustrated in Figure P6. 1 The Company's business model was associated by interviewees with a set of heterogeneous actors. These included human actors such as customers, executives, shareholders as well as nonhuman actors such as products, profit and the logistic chain. Some interviewees directly referred to this entangled human-nonhuman nature of the business model as exemplified by the following statement: 'The business model is quite strategic in that sense, but I think it's having a bit of a human side to it. '[Lara, CRS Liaison, P44]. These heterogeneous actors were clustered when they were perceived to act together as one actor network. They could be 'punctualized' as one actor.

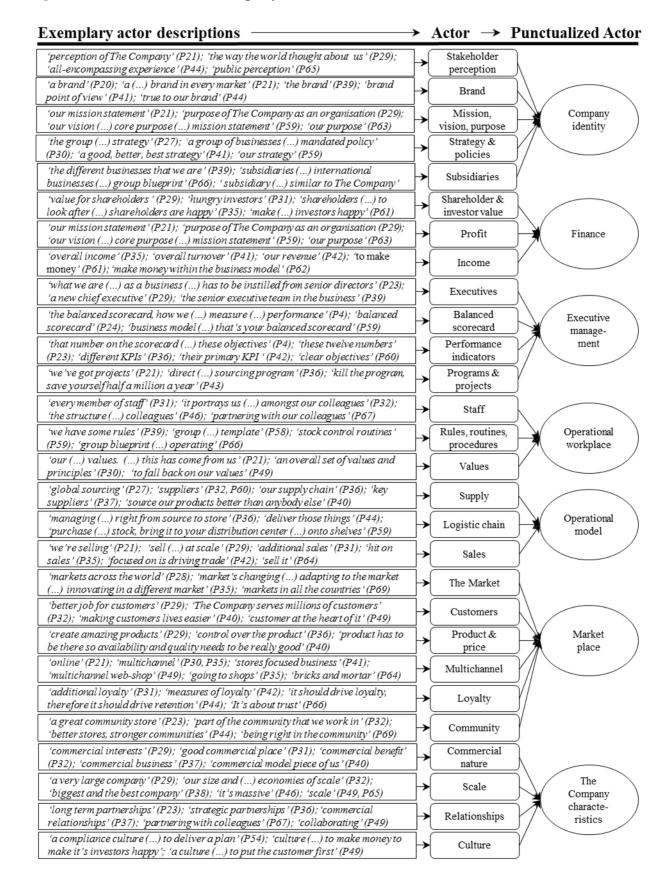
For instance, 'customers' as an actor were perceived to be 'at the heart of it [the business model]' [Oscar, Customer Relations, P49]. Their 'loyalty' strongly oriented The Company's business model: 'Tt should drive loyalty' [Lara, CRS Liaison, P44]. Loyalty, in turn was related strongly to the actors of 'product and price'. It also depended on product availability, enacted by both the 'online' [Denise, Subsidiary Company, P21] and 'bricks and mortar' [Oscar, Customer Relations, P49] shops. These two shop types in turn came together in the 'multichannel' actor. Customers' loyalty to shops, again, was highly related to the local 'community' actor that the customers were part of. All of these actors came together in the actor network of the 'marketplace'. It was one tightly entangled actor network made of the associations between all of these actors. Accordingly, these actors were punctualized as the 'marketplace' actor<sup>9</sup>. This marketplace actor network often acted as one punctualized actor, which is exemplified in the following statement:

'The market[place] has given a clear guide to sourcing (...) if there's no clear guidance from the market[place], what are the standards against which we should be sourcing?' [Paul, Commercial Support, P20]

Seven larger punctualized actors were identified through this process of associating actors according to the network they belonged to: 'Company identity', 'finance', 'executive management', 'operational workplace', 'operational model', 'marketplace', and 'The Company characteristics'. Each of these punctualized actors represents a black-box consisting of yet another actor-network. All of them together established The Company's business model actor network itself can be black boxed as an actor. It acts in the yet larger actor networks of, for instance, the industry, or society at large. In summary, The Company's business model took the form of a heterogeneous network of actors. The network enacted the value logic of doing business in The Company.

<sup>&</sup>lt;sup>9</sup> A distinction was made between 'market' as particular markets like the international markets that P28 and P69 are referring to. I refer to the 'marketplace' more broadly as the *space* in which interactions between demand and supply take place (http://www.merriam-webster.com/dictionary/marketplace).

Figure P6. 1 Actors of The Company's Business Model Actor Network



#### The Network

Figure P6. 1 visualizes the business model actor network as a list of themes. It helps to understand how the actors were constructed from the interviewees' statements. However, it does not reflect the actors' networked nature. It omits the associations that tie actors together and construct the business model actor network. Figure P6. 2 addresses this shortcoming. It is an actor-network map that builds up on the previous list, but complements it. It shows how the seven punctualized actors related to each other to form the business model actor network. From participant observation across the company it became apparent that several of the seven punctualized actors could be punctualized even further. The 'operational model' and 'operational workplace' together were often associated as 'commercial operations'. The 'identity' and 'finance' actors were often associated as the 'corporate headquarters'.

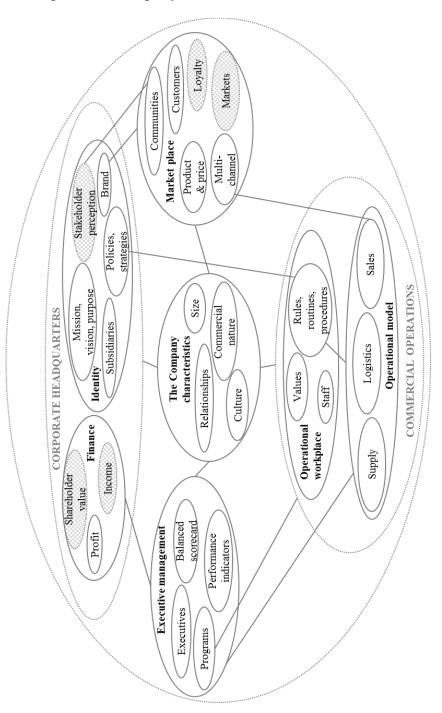
The Company's business model had existed largely unchanged through decades of commercial success. At the time this research was conducted, however, it was in upheaval. Several of the central actors had become disassociated from the actor network. These actors are marked by grey shading in the actor-network map (Figure P6. 2). They jeopardized the business model's integrity. Central actors in these disassociation processes were customers. New entrants into The Company's home market, and changes in customers' shopping behaviors, particularly internet shopping, had led to a loyalty crisis.

'Our business model (...) we're not into bricks and mortar (...) now growing as an online company (...) the second curve. The first curve was about bricks and mortar, loyalty card, all the stuff we've done in the '80s and '90s' [Peter, Infrastructure Team, P64]

'Loyalty', as an actor that was once taken for granted, started to betray the bricks-and-mortar-shops-focused business model. Loyalty used to be associated with the local presence of a shop. Proximity to a shop used to be the main reason for why customers would shop at The Company. With the more widespread acceptance of online-shopping, customers became disassociated from such shop-based loyalty. The Company's industry-leading network of local bricks and mortar shops was disassociated from loyalty. This meant that finally customers became disassociated from The Company's business model actor network which was still focused much on bricks and mortar.

The *agreement* (Callon, 1991) among actors, of what The Company's business model was and should, be had disappeared. Most actors were still enrolled in the *old* type of shop-based-loyalty business model. Customers, however, were at odds with the business model based on this type of loyalty. So were several actors (marked in grey). With vanishing shop-based loyalty, income started dwindling. In a knock-on effect this also disassociated shareholder value from the old business model. The Company's share price was on a path of decline due to these issues in the business model.

Figure P6. 2 A Map of The Company's Business Model Actor Network



The Company started to strategically search for an actor that could re-associate loyalty and the business model. Such an actor would need to re-enrol the customer into The Company's business model actor network. The actor would need to re-enrol loyalty as a key actor into the business model actor network. The response was 'emotional loyalty' [Jacob, CRS Team, P7; Jay, Corporate Affairs, P23; Lee, Infrastructure Team, P43]. In a world where bricks and mortar shop presence did not lead to customer loyalty, 'being loved again' [Jacob, CRS Team P7; Kay, CRS Team, P10; Ruth, CRS Liaison, P26; Jed, In Shop, P54] was the goal. Being perceived as a good company, one that is responsible and cares was considered a pathway leading to emotional loyalty. Emotional loyalty was meant to substitute the old location-based loyalty actor. Accordingly, 'Being Responsible' was created not only to make The Company more responsible and sustainable, but also to foster customers' emotional loyalty:

'The business model is being pretty firmly built around loyalty and this comes down to being loved by the customers (...) now obviously what we are doing on Being Responsible has to do with driving loyalty' [Jacob, CRS Team, P7].

This description of 'Being Responsible's' origins shows how its creation was an attempt to fix The Company's troubled business model actor network. Fixing it meant to make The Company a more responsible and sustainable business that could 'be loved'. The following section is dedicated to finding out how the 'Being Responsible' device participated in the actor network and how it became embedded into the business model actor network.

# Participation of 'Being Responsible' in the Business Model Actor Network [RQ2]

In the last section we had mapped The Company's business model actor network. Following the 'Being Responsible' device revealed how it participated in this actor network. The device was found to not, or very little, participate in the 'company characteristics' and 'marketplace' actor networks. It did, however, participate intensively in the actor networks of 'corporate headquarters', 'executive management' and 'commercial operations'. Through this participation, 'Being Responsible', and with it responsibility-sustainability, became increasingly embedded into these networks. Four repeated patterns of participation and embedding were observed across the three networks:

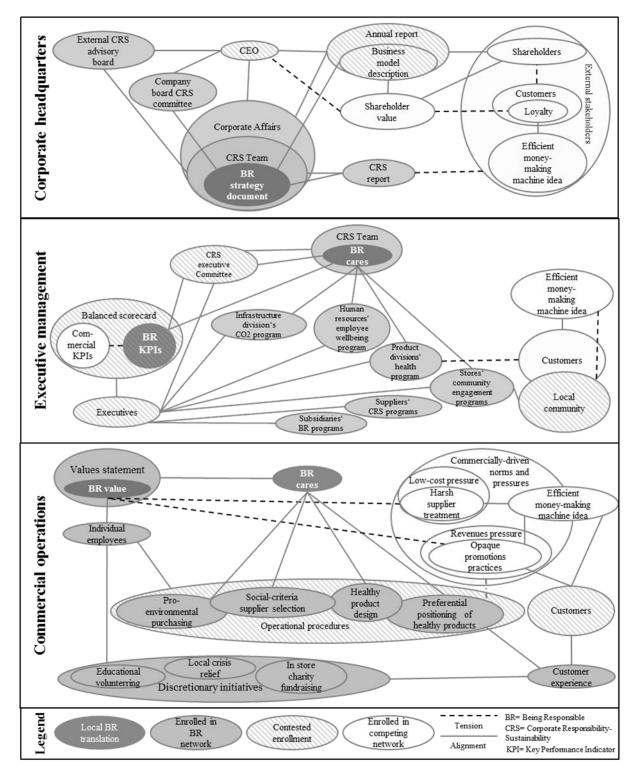
i. *Merging into existing actors*: The device or parts of it (see Paper 5) were found to merge into other actors. For instance, the strategic cares of *'Being Responsible'* were translated into indicators. These indicators were embedded into the balanced

scorecard. Together with the existing commercial indicators they formed the balanced scorecard actor. The scorecard was a key actor in the 'executive management' network. 'Being Responsible' as a value had been introduced as another part of the device. It merged into The Company's values statement. 'Being Responsible' became embedded into the values statement as one out of three values. The values statement was a powerful actor in the 'commercial operations' actor network.

- ii. Redefining existing actors: A number of actors were redefined according to the 'Being Responsible' logic inscribed into the device. A good example is the energy team inside the infrastructure division. In the 'old' business model the team took the role of a costs saver by saving energy. This team became enrolled in 'Being Responsible' as main actor in saving CO2. It contributed to the 'environmental impact' care. Redefined actors enacted responsibility-sustainability. It had become embedded into their agency.
- iii. *Creating new actors:* A number of actors for responsibility-sustainability were created that would not have existed without *'Being Responsible'*. An example is the CRS Team chaperoning the device through The Company. The team was created for this purpose. By associating with other actors, these new responsibility-sustainability actors became embedded into the business model actor network.
- iv. **Becoming an actor:** Finally, 'Being Responsible', in its original form as the device acted as well. It particularly did so in the corporate headquarters actor network. It directly related to and was embedded into the headquarters actor networks. 'Being Responsible' also acted 'in parts'. As illustrated above, the 'Being Responsible' value developed 'a life of its own' in commercial operations. Its strategic cares acted most strongly in 'executive management'.

To understand process and result of the device's participation in these networks the 'black boxes' of the three actors/networks it participated in will be opened up. Their internal workings and how 'Being Responsible' had become translated into each of them will be described in depth. The following three sections show how 'Being Responsible' translated into and participated in the 'corporate headquarters', 'executive management' and 'commercial operations'. Figure P6. 3 illustrates the distinct translations of 'Being Responsible' across these actor networks. It will serve as basis for the following textual description.

Figure P6. 3 Translation and Embedding of 'Being Responsible'



'Corporate Headquarters' Translation: A Strategy Document

The actor network which the 'Being Responsible' device first participated in was 'corporate headquarters'. This was the network that included the corporate affairs department which the device had been created in. In headquarters, 'Being Responsible' primarily participated as the strategy document, the one-page description introduced earlier as the device. Its presence had led to the creation and redefinition of a number of actors to enact responsibility sustainability. A salient example was the CRS Team, who worked from inside the corporate affairs department. The team's composition mirrored the 'Being Responsible' device. Each member of the team was assigned to one of the seven cares (basic and strategic) covered by the device. The CRS Team had been created to facilitate the circulation of 'Being Responsible'. They were chaperons of the device. Team members were meant to be 'influencers':

'What's your influencing plan? (...) you have to influence the domestic CEO<sup>10</sup> to actually start (...), but you also need to influence individual Product Teams because they are the people who actually got to do it' [Jacob, CRS Team, P7].

There were two additional chaperons enabling circulation in the headquarters. They were the newly created responsibility-sustainability committee at board level and a responsibility-sustainability advisory board of external experts. The last group directly supported the CEO and her high level leadership team in the enactment of 'Being Responsible'. The long-established responsibility-sustainability report became reorganized to reflect the 'Being Responsible' cares. All of these actors were associated strongly with the device and formed part of its immediate network. All of these translations of 'Being Responsible' were closely related to the original one-page document, the device:

'That powerful (...) weighty, thoughtful document (...) a one page infographic (...) that you can show' [Jay, Corporate Affairs, P23].

However, there also was a competing actor network often in tension with the emerging 'Being Responsible' actor network. A majority of external stakeholders did not 'buy it'. It was difficult 'to convince them that this type of [Being Responsible] stuff is actually fundamental to the business' [Jacob, CRS Team, P7]. This difficulty was related strongly to the perception of The Company being an 'efficient money making machine' [Jacob, CRS Team, P7]. The idea closely related to The Company's old business model actor network.

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<sup>&</sup>lt;sup>10</sup> CEO stands for chief executive officer.

The Company's powerful 'operational model' actor had geared the business model towards efficiency. It was 'focused on (...) being very efficient, being very large-scale, obviously running a great operation' [Sue, CRS Team, P16]. Also, the 'executive management' actor, together with the 'commercial nature' actor showed these very goal-driven characteristics. They reinforced a business logic that would not allow The Company's actors to engage in anything outside these commercial goals; let alone responsibility-sustainability cares. These characteristics were internally represented as operational excellence: 'Colleagues saw The Company as an efficient money making machine and were proud of it' [Jacob, CRS Team, P7].

One interviewee quoted a perception survey of main businesses' in the Company's industry. It illustrated how these characteristics translated into external perception. In the survey, customers were asked to describe what each company would look like if they were a person. A main competitor was, for instance, described as 'a busy mum'. The Company, however, was 'a greedy man in a grey suit' [Josephine, Customer Relations, P31]. This reflected The Company's external perception. It was the idea of an 'inhumane money making machine', run by ungiving business people. This idea became a powerful actor competing with the 'Being Responsible' purpose of creating emotional loyalty. Customers were unlikely to 'love' this money-making machine. This tension between 'Being Responsible' and the efficient money-making machine is well described through the following statement: 'It's not about profit or pride as a company. It's about the people and the purpose of us doing that [Being Responsible] activity' [Lara, CRS Liaison, P44].

As a consequence, also shareholders were in tension with 'Being Responsible'. They were primarily interested in its effectiveness in creating loyalty. If it was effective, this would lead to continuous sales and ultimately to higher shareholder value. The competing actor network representing the 'old' Company led to considerable tensions. Tensions often manifested themselves in some actors' contested association between the new and old business model. For instance, the CEO, on the one hand, was one of the most important actors driving 'Being Responsible'. But she also had to be committed to closely listening to shareholders and to responding to their queries. A similarly contested actor was The Company's annual report. 'Being Responsible' had merged into it. The report included a business model description into which responsibility-elements of 'Being Responsible'

had been embedded. The larger report, however, was primarily aimed at showing shareholders how the business model made money.<sup>11</sup>

In summary, 'Being Responsible' in the headquarters had translated into an emerging network enacting responsibility-sustainability. Many of the actors in this network were also key actors of the business model. The device had been translated into some of these actors. It also had merged with others, for instance, the annual report into which it had been embedded. However, 'Being Responsible' had also encountered strong tensions with the actor network enacting the old-established 'efficient money-making machine' model. The device had begun to redefine actors that were previously perceived to be part of the 'old' model, such as the CEO. However, it had not yet been able to enrol other powerful business model actors such as loyalty and shareholders.

'Executive Management' Translation: Key Performance Indicators 'Being Responsible' had also circulated into the 'executive management' actor network. The main translation of the device here was into the performance indicators (KPI) on the balanced scorecard. The scorecard was a system of KPIs tied to executive evaluation and compensation. The power of KPIs as actors in the 'executive management' actor network was pointed out by many executives. It was pinpointed by Rosie from Human Resources: 'How do you KPI my world? So what does good look like?' [P66].

The 'executive management' actor requested a translation of the 'Being Responsible' device along these lines. 'Do we set targets?' [Rosie, Human Resources, P66] for these responsibility-sustainability cares, was the question asked. The strategic cares described as part of the 'Being Responsible' device were translated into such tangible targets. These targets could then merge into the balanced scorecard indicator set. This changed how the scorecard influenced the behavior of executives in multiple areas of The Company. This translation made the performance indicators the key 'Being Responsible' actor in 'executive management'. The balanced scorecard had immense potential to enable the circulation and enactment of the device across multiple locations on all levels of The Company:

'(...) enable the sorts of activities (...) through the way in which we review people so there's certainly a very strong piece of work that is being done through the Being Responsible indicators on the Balanced Scorecard and then

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<sup>&</sup>lt;sup>11</sup> The business model description is one of the FTSE100 descriptions analyzed in Papers 3 and 4.

it replicates on the business unit level and on the product unit local level and on the shop level (...) and then on an individual's review- so everyone' [Jacob, CRS Team, P7]

As a result, the responsibility-sustainability cares had been translated from the device to a dedicated section on the balanced scorecard. This section comprised a set of performance indicators to promote 'Being Responsible' actions and behaviors among executives. Executives then often created or redefined programs to achieve these performance indicators:

'The kind of initiatives that I mentioned already are things that we've introduced as a result of Being Responsible' [Dana, Supplier Company, P70].

Such programs typically were the main actors through which these cares would become enacted in the remit of each executive. For instance, the head of the infrastructure team reoriented an existing energy-efficiency program to reduce CO2 emissions. This contributed to the care of environmental impact reduction. Human resources executives created a program for employee wellbeing. The program enacted the care of good employment practices. Subsidiaries and even suppliers were often assessed by performance indicators on The Company balanced scorecard. They often created own programs associated with 'Being Responsible' cares in their own organizations. These are only some out of many examples where 'Being Responsible' scorecard KPIs had been translated further into initiatives. 'Being Responsible' had become embedded into these actors and into their networks.

However, also in 'executive management', there were struggles with the old business model of The Company as an 'efficient money-making machine'. This idea was also inscribed strongly in the balanced scorecard. Its commercial KPIs were in tension with the responsibility-sustainability KPIs:

'The different KPIs can struggle one with another so some of the other KPIs that are commercial for buyers, will incentivise for behaviour (...) I don't want buyers to treat suppliers badly' [Jacob, CRS Team, P7].

Such tensions in incentives and interest also translated into internal tensions for executives. They struggled between their role in 'Being Responsible' and in the actor network enacting the 'efficient money-making machine'. Tensions also existed where programs as actors met with other actors associated primarily with the 'efficient money making machine'. There

were several occasions where The Company's health program was criticized by customers. They claimed it was not The Company's role to tell customers how to be healthy. An 'efficient money-making machine' is not a legitimate moral agent. Also, communities benefitting from the 'Being Responsible' community engagement program would experience a tension. The tension was between communities' preconceived perception of the 'efficient money making machine', and the caring community actor they got to know through 'Being Responsible' programs.

In summary, in the 'executive management' actor network, 'Being Responsible' had become translated into KPIs on the balanced scorecard. The scorecard and its indicators were central actors of The Company's business model actor network. It had also led to the enrolment and creation of programs. These became new actors in the emerging 'Being Responsible' actor network. However, as in the 'corporate headquarters', also in 'executive management' 'Being Responsible' led to multiple tensions. It struggled to enrol actors that were still primarily associated with the 'efficient money making machine' actor network.

'Commercial Operations' Translation: A Value

'Being Responsible is going to have to translate into (...) how (...) to operate' [Eleanor, In Shop, P37]. 'Being Responsible' translated into the 'commercial operations' actor network as a value. Neither the translations into KPIs ('executive management'), nor into the strategy document ('corporate headquarters') was present in the descriptions of what 'Being Responsible' meant to interviewees from 'commercial operations'. However, they did identify 'the phrase, the title of "Being Responsible", because that's what people talk about' [Lee, Infrastructure Team, P25]. The device was translated into the phrase and into the value of 'Being Responsible'. It had merged into The Company's values statement as one of three company values. This new value fostered a wealth of contributions to the 'Being Responsible' cares.

It also promoted discretionary action that was not directly linked to the pre-defined cares mentioned as part of the main document. Staff often perceived the value as an opportunity to engage in actions that mattered in their personal context. It was typically taken up by staff situated in the mid-to-lower levels of The Company hierarchy: 'That's where you can have people who take a lead as individuals (...) [who] have a conviction that this is the right thing to do and can get on with that within their own area' [Sue, CRS

Team, P16]. There are many anecdotes of such individualized enactment of 'Being Responsible' in the 'commercial operations' actor network:

'Everybody (...) the world and his dog thought, I now need to do something about Being Responsible and lots of people were off doing things, and talking about it, and thinking about doing things' [Kathy, Commercial Support, P25].

A good example is two engineers in the energy department who started an educational volunteering program. Another example is the purchasing manager who started a fundraising program for Veterans: 'A lot of people will take the term of Being Responsible, and actually interpret it for their own area' [Janet, Commercial Support, P36]. Many interviewees also were familiar with some of the predefined cares of the 'Being Responsible' device. What care they were familiar with, related strongly to the job context of each interviewee. For instance, a trainee in the purchasing department described 'Being Responsible' as the cares he observed as relevant in his work environment:

'I think, of community projects. I think, about educating people about the way we operate as a corporation and what we are doing to reduce (...) waste, how we can think of alternative energy or we're doing for the community (...) so, that's what I think when I hear Being Responsible' [Tao, Product Team, P61].

Many programs, including pro-environmental purchasing, healthy product design or avoiding waste, were made explicit in operational procedures. These procedures were another prominent actor in 'commercial operations'. Other programs, such as in-shop charity donations were partly discretionary, partly regulated through operational procedures. Overall it appeared that 'Being Responsible' had become a major part of the day-to-day activity in 'commercial operations'. This is expressed in multiple interviewee quotes. They referred to 'Being Responsible' as 'inherent in the day-to-day activities' [Linda, CRS Liaison, P68]; as 'all the activities' [Sean, Customer Relations, P53]; 'as a principle that we build a lot of our business activities around (...) that underpins a lot of the work' [Oscar, Customer Relations, P49]; 'a consideration when you're doing something' [Jamal, Human Resources, P45]; and 'something that will always feature in decision-making' [Charlie, Infrastructure Team, P60].

However, many of the operational procedures were also influenced strongly by often unwritten commercial norms and pressures. This made operational procedures another contested actor. They existed in tension between 'Being Responsible' and the

commercially-driven 'efficient money-making machine' actor network. These pressures had also led to a number of practices that were considered contradictory to 'Being Responsible'. Explicitly mentioned were opaque sales promotion practices and a sometimes harsh treatment of suppliers. A particularly illustrative anecdote for the tensions between 'Being Responsible' and commercially-driven practices was related to the introduction of a new operational procedure.

The procedure had been introduced as response to 'Being Responsible'. It was meant to operationalize the preferential positioning of healthier products over unhealthy alternatives. This operational procedure for shelf stocking required employees to substitute unhealthy products in prominent positions in shops by healthier products. This procedure was closely aligned with 'Being Responsible'. However, it also was in tension with the commercial pressure of pushing revenues and making profit. The unhealthier options were often revenue drivers and had above-average margins:

'People (...) feeling like, this is going to affect my sales, this is going to affect my margins, and the commercial impact' [Kathy, Commercial Support, P25]

It was in this commercial operations environment and through such tensions that customers slowly began to become enrolled in the 'Being Responsible' actor network. Initiatives such as the preferential positioning of healthy options, described above, were directly experienced by customers. Such initiatives that contradicted the 'efficient money-making machine' added to the legitimacy of The Company's responsibility-sustainability efforts. It was perceived by employees to lead to increased emotional loyalty among customers. This had been the original purpose of the 'Being Responsible'. The credibility of these actions was boosted by The Company's decisions to act against purely commercial interest and for a responsibility-sustainability care instead.

However, customers' association with 'Being Responsible' was still contested. The witnessed accounts of a caring company were still in tension with the deep rooted idea of the 'efficient money making machine'. In summary, 'Being Responsible' had been translated into the 'commercial operations' actor network by merging into the values statement. As a consequence cares were enacted in individual employee's context. The device was successful in associating central actors in The Company's 'commercial operations' actor network. Particularly important actors were the values statement, operational procedures and customers. This made the 'commercial operations' actor-

network a salient location for 'Being Responsible' to become embedded into the business model.

In summary, the 'Being Responsible' device had participated in the 'corporate headquarters', 'executive management' and 'commercial operations' actor networks. As punctualized actors of the business model, they increasingly enacted responsibility-sustainability. The translation of the 'Being Responsible' device had been facilitated through its circulation in these networks. It had incrementally, but pervasively changed the business model actor network to enact corporate responsibility-sustainability.

# **Discussions and Contributions**

The following discussion points have two types of elements. On the one hand, they relate to particular conceptual insights from this paper and what they mean for particular discussions. On the other hand, the larger part of the following sections is dedicated to outlining promising applications of an actor-network methodology. The below areas of discussion and contribution are embedding responsibility-sustainability and the one of tensions in organizations and management.

Embedding Responsibility-Sustainability and Actor-Networks

The term of 'embedding' responsibility-sustainability in this paper was used tacitly. It was not explicitly defined or connected to a particular discussion in the literature. It was used as a metaphor for making responsibility-sustainability part of business model actor networks. However, the corporate responsibility-sustainability literature includes an area that explicitly studies embedding as one form of implementation (see Chapter 3). The embedding responsibility-sustainability literature studies implementation of responsibility-sustainability across a company (Bartlett, 2009; Haugh & Talwar, 2010; Lozano, 2012; Perera-Aldama, et al., 2009; Spence & Rinaldi, 2014). Embedding is the integration of responsibility-sustainability across heterogeneous aspects of an organization such as values, the supply chain, the strategy and the business model (Banerjee, 2011; Bartlett, 2009; Govindan, 2016; Grayson, 2011; Lozano, 2012; Mason & Simmons, 2014; Short, et al., 2013). Programs like 'Being Responsible' have been observed to drive responsibility-sustainability embedding (Grayson, 2011). I suggest that the actor-network theory and methodology applied in this paper may enrich the embedding responsibility-sustainability discussion in three ways.

First, this literature is rather fragmented, due to the heterogeneous nature of *what* is embedded *into what*. It lacks a conceptual lens bringing these heterogeneous objects of embedding together. Actor-network theory with its built-in heterogeneity might be an overarching lens for building conceptual bridges. In this paper we have seen how responsibility-sustainability had been embedded into a variety of actors. Many of these actors reflected the heterogeneous objects of embedding, such as documents (e.g. annual report), employee evaluation (e.g. key performance indicators), culture (e.g. values) and structures (e.g. CRS board committee). All of these actors came together in the business model actor network connecting them.

Secondly, the embedding literature is split into mechanistic, nonhuman structural explanations of the embedding process (Yuan, et al., 2011) and explanations that rely on profoundly human processes (Basu & Palazzo, 2008). The embedding of responsibility-sustainability observed in this case unifies this dichotomy. The actor-network theory tenet of heterogeneity, of human-nonhuman actors, unified mechanistic and human views on embedding.

Third, actor-network theory may also serve to connect embedding responsibility-sustainability to the mature literature on the embeddedness of economic activity in its social context (Dacin, et al., 1999; Granovetter, 1985; Polanyi, 1994). Further research may show how the construction of actor-networks for responsibility-sustainability *is* a process of social embedding. The research object would be the embeddedness and embedding of an actor in its actor network.<sup>12</sup>

# The Role of Tensions

Throughout the paper we have seen how tensions emerged in the embedding and translation processes. The actor-network methodology revealed multiple tensions. They emerged between networks (e.g. network of 'the efficient money making machine' and 'Being Responsible' network); between particular actors (e.g. opaque promotion practices and 'Being Responsible' value); and inside actors (e.g. between commercial and 'Being Responsible' indicators of the balanced scorecard). The actor-network theory tenet, that an actor also is a network and vice versa, connects all of these tension types. We can consider all of them as tensions between actors and their respective logics. For instance, opaque

<sup>&</sup>lt;sup>12</sup> Another contribution to the business model literature could be made by connecting the embedding responsibility-sustainability into actor networks to embedding other topics across a business model. An example is embedding 'strategic agility' (Doz & Kosonen, 2010).

promotions practices are in line with a commercial 'money-making' logic. They are aimed at making customers buy more. These practices are inconsistent, however, with the 'Being Responsible' logic. The responsible thing to do would be to provide customers with transparent information; to let customers themselves decide if buying is in their best interest, independently from The Company's interest in selling more.

This paper was not positioned in a literature on tensions. However, the unplanned emergence of tensions from the analysis has methodological implications for the tensions literatures. It relates to several main discussions. First, tensions between environmental, social and economic dimensions have been studied by a stream of reasearch in coporate sustainability (Hahn, et al., 2010; 2014a; 2014b; Van der Byl & Slawinski, 2015). Secondly, tensions are also subject of an emerging literature on the tensions and paradoxes in complex business models (Klang, et al., 2014; Smith, et al., 2010). Third, the hybrid organizations discussion (Paper 3), involves tensions betwee co-existing social welfare and commercial logics (Battilana, et al., 2015; Battilana & Lee, 2014; Haigh & Hoffman, 2012; Pache & Santos, 2013). All of these literatures may benefit from actor-network theory's methodological strength in pinpointing multiple tensions in an actor network. Using an actor-network methodology may provide ever more refined answers. This may become even more important as these literatures mature. In the process, they are likely to move from research on big conceptual questions into the study of more fine-grained empirical problems.

The tensions aspect also contributes strongly to the internal discussion of the three papers that constitute the 'trilogy' of The Company case study. In the first trilogy paper (Paper 5) we had observed how the 'Being Responsible' device had developed agency to make other actors enact its responsibility-sustainability logic. In this second paper (Paper 6) we have seen that this enactment creates tensions with the commercial logic. In the third trilogy paper (Paper 7), the focus will be on the role of such tensions in the business model change process. It will show how tensions may trigger translation processes between actors and their logics. These processes in turn may result in business model change.

# **Conclusions**

This paper was grounded in an intriguing initial question: 'How had the corporate responsibility-sustainability program become embedded into The Company's business model?' We have seen how a corporate responsibility-sustainability device may participate

in the business model actor network. In the process, it may change a business model to enact responsibility-sustainability. By doing so *'Being Responsible'* had embedded responsibility-sustainability into the business model actor network.

The paper's main findings can be summarized through four main points. First, business models can be understood and analyzed as heterogeneous actor networks. This provides new insights into business models' agency and change processes. Secondly, responsibility-sustainability devices like 'Being Responsible' may take part in this business model actor network. They may circulate through it, translate into it and construct the actor network. The participation of 'Being Responsible' showed four frequent patterns of embedding: i) merging with existing actors ii) redefining existing actors iii) creating new actors iv) becoming an actor. Third, devices may become embedded into the business model actor network. 'Being Responsible' had become embedded into three of The Company's main business model actors: The 'corporate headquarters', 'executive management' and 'commercial operations'. Fourth, devices may change business models through these processes. 'Being Responsible' had incrementally, but pervasively changed The Company's business model actor network towards enacting corporate responsibility-sustainability. It had created business model change through embedding responsibility-sustainability.

This paper has both conceptual and methodological implications for the discussions on embedding responsibility-sustainability as well as to the one on organizational tensions. This was the second paper in a 'trilogy' studying The Company's 'Being Responsible'. The third paper (thesis Paper 7) will bring together the discussions on logics and devices in the first paper with this second paper's discussion of actor networks. It will develop a model of business model change involving all three, logics, devices and actor networks.

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# PAPER 7. BUSINESS MODEL CHANGE AS TRANSLATION: LOGICS, DEVICES AND ACTOR NETWORKS

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# **Abstract**

This paper proposes a framework of business model change as translation. It draws from the business model and actor-network theory literatures. According to the framework, a business model is a value logic inscribed in devices and enacted by an actor network. Business model change may be driven by the misalignment between a logic inscribed into a device and the dominant logic of the actor network. Such misalignment creates tensions. Tensions in turn fuel translation processes that change all three, business model logics, devices and actor networks. Necessary characteristics for a device to change business models are its misaligned inscription, its power to enrol actors and the ability to circulate. The framework is grounded empirically in the illustrative case of The Company<sup>1</sup>. In The Company, a responsibility-sustainability<sup>2</sup> device had incrementally, but pervasively changed the business model. This paper contributes to the business model literature by connecting the logics, devices and actor-network perspectives on business models. It also provides novel insight into the role and characteristics of devices in business model change.

# **Keywords**

business model change, translation, devices, actor network theory, logics of action, dominant logic, institutional logics, responsibility, sustainability

<sup>&</sup>lt;sup>1</sup> Re-named to ensure anonymity of The Company

<sup>&</sup>lt;sup>2</sup> The term responsibility-sustainability is meant to capture the entangled nature of both topics.

# **Introduction: Devices Changing Business Models?**

'To push forward the sustainability agenda that to me is the kind of change, structural change in our business model' [Graham, CRS Team, P17]<sup>3</sup>

The statement by Graham from The Company's corporate responsibility-sustainability team<sup>4</sup> is intriguing. It appears that The Company's business model was in the process of being changed. Apparently the change was driven by responsibility-sustainability efforts. An obvious question is how that happened. However, before understanding business model change, we have to understand what it is that is being changed, the business model. Interviewees in The Company had been asked, 'What is The Company's business model?' Answers varied considerably: Erica working as a CRS Liaison called it 'the DNA of the business' [P30]. Nancy from Corporate Affairs described the business model as 'that picture (...) of the annual report' [P22]. Paul from Commercial Support answered 'WE are actually doing it' [P20].

Each of these practitioner statements reflects a distinct perspective in the business model literature. Business models have been studied as value 'logics' (e.g. Chesbrough & Rosenbloom, 2002). These logics shape everything a business is and does, just like Erica's 'DNA' [P30]. They also have been understood as 'devices' that describe a business model logic (e.g. Doganova & Eyquem-Renault, 2009). One such device is Nancy's 'picture' [P22]. Finally, business models have been studied as networks of actors enacting the logic (e.g. Demil & Lecocq, 2015), like Paul's 'WE' who 'are doing it' [P20]. The literature has built an appreciation of all three 'states' of the business model individually: Logics, devices and actor networks. <sup>5</sup> However, we know little about how they interact dynamically. This leads to the first research question of this paper:

**RQ1:** What dynamics of business model logics, devices and actor networks are involved in business models change?

In The Company, change was driven by 'Being Responsible', a textual device representing the responsibility-sustainability program (see Paper 6). The idea that a device may change

<sup>&</sup>lt;sup>3</sup> The numbers in parentheses [] serve as references to a particular interviewee in The Company, the empirical research site this paper was informed by. A complete list of interviewees is provided in the appendix of the PhD thesis this paper forms part of.

<sup>&</sup>lt;sup>4</sup> Using the abbreviation of corporate responsibility-sustainability (CRS) has mostly been avoided. The reason is that it is not established and might be confused with corporate social responsibility (CSR).

<sup>&</sup>lt;sup>5</sup> These three 'states' of business models have been illustrated in greater detail in the literature review Chapter 2 of this thesis document and in Chapter 5, as part of the conceptual framework.

a business model is intriguing. Sure it could not be just any device achieving such change. This brings us to the second research question of this paper:

**RQ2:** What are necessary characteristics of a business model change device?

Guided by these two questions, this paper will build a framework of business model change. The framework will include change in and between the three business model states of logics, devices and actor networks. It will then be used to explain the characteristics necessary for devices like 'Being Responsible' to change a business model. This framework will be illustrated through the case of The Company. It helps us to understand how the dynamics between the responsibility-sustainability device and the business model actor network led to a pervasively, albeit incrementally changed business model of The Company.

#### **Business Model States**

This section is centred on addressing the first question: 'What dynamics of business model logics, devices and actor networks are involved in business models change?' The framework for addressing this question brings together the business model literature and the actor-network theory literature.<sup>6</sup>

Actor-network theory is a concept and methodology that originates from the study of change in science and technology studies (Callon, 1986; Latour, 2005; Law, 1992). Actor-network theory has been applied in economics, business and management (Callon, 2007; Fox, 2000; Ramírez, et al., 2011). It has been used to explain processes of organizing and of organizational change (Alcadipani & Hassard, 2010; Czarniawska & Hernes, 2005; Lee & Hassard, 1999). Actor network theory also has been applied in the business model context to explain how business model devices, such as a business plan or a product, may change business model actor-networks (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). This paper builds up on these advances, but also extends them by inserting business model logics into processes of business model change. Actor network theory is best applied through empirical illustration:

'To describe actor network theory in the abstract (...) misses the point because it is not abstract but is grounded in empirical case studies (...). We can only

<sup>&</sup>lt;sup>6</sup> The actor-network theory literature includes the concepts of translation and devices, which are central elements of the framework.

understand the approach if we have a sense of those case studies and how these work in practice' (Law, 2009, p. 141)

Accordingly, empirical material from The Company case will be used for illustration throughout framework development. The final framework then will be illustrated through the in-depth description of the case. We will now begin to build the framework by looking at business model logics, devices and actor-networks from an actor-network theory perspective. The framework will explain how business model logics are inscribed into devices and enacted by actor networks.

# Logics

Business models are understood to be logics of doing business (Chesbrough & Rosenbloom, 2002; Johnson, et al., 2008; Teece, 2010). This first perspective is reflected in the notion of 'the DNA of the business' [Erica, CRS Liaison, P30] in The Company case. It describes the underlying narrative of doing business, that defines what the business, and every part of it, is and does (Abdelkafi & Täuscher, 2016; Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; George & Bock, 2011; Johnson, et al., 2008; Teece, 2010; Zott, et al., 2011). Business model logics bring together value proposition, creation, exchange and capture as one coherent 'value logic' (Paper 2).

How does the business model as a logic become something that is present across business model devices and across the actor network? Anna from Human Resources [P59] had called the business model 'your how to do guide'. This description resembles strongly the notion of 'logics of action' that describes 'the social influence on actors' actions' that a particular logic has (Thornton & Ocasio, 2008, p. 102). Logics of action describe the 'implicit relationship between means and goals that is assumed by organizational actors' (Bacharach & Mundell, 1993, p. 423). They are a 'general logic (...) that guides each party's behavior' (Bacharach, et al., 1996, p. 477). These logics 'affect day-to-day organizational activity' through the micro-interactions of actors' exercising their agency (McPherson & Sauder, 2013, p. 165). This understanding of 'logics of action' connects well with actor network theory. Mol (2010, p. 259) associates actor networks directly with their underlying logic:

'The term logics holds some appeal, as this term stresses that what makes up a distinct network/logic and what belongs to another, partly depends on what makes sense in the terms of the network/logic at hand.'

Callon (1991) alludes to an actor network's logic by describing 'convergence'.

Convergence is a process through which actors create agreement about the actor network. This includes agreement about the role of every actor in the network. The actor-network, for instance, a business model, acts upon this underlying logic. It aligns the agency of every actor with it. Accordingly, in a well-aligned network the logic is present in every actor. Further support for this understanding of an actor network's underlying logic comes from Latour (2005, p. 241):

'What travels "through" everything, calibrating connections and offering every entity it reaches some possibility of commensurability.'

Consequentially, the logic of the actor network would be its underlying logic, which is present in every actor of the network. This 'logic of action' of the whole business model actor network circulates through the network. The value logic becomes not only the logic of action of individual actors, but of the whole network. It becomes a 'dominant logic' (Bettis & Prahalad, 1995; Chesbrough & Rosenbloom, 2002; Prahalad & Bettis, 1986). The dominant logic of The Company used to be a purely commercial one: The 'efficient money-making machine' [Jacob, CRS Team, P7].

However, Mol (2010) criticizes this 'single, overarching and coherent order in which everything fits just fine and friction-free' (p. 259). It misrepresents a typical actor network as it 'hides fissures, contradictions' (p. 259). Distinct logics do co-exist in actor networks and create tensions (Mol, 2008; Mol, 2010; Mol & Berg, 1994). In the empirical context of this paper that these logics may be influenced by distinct institutional logics is of great relevance (Friedland & Alford, 1991; Thornton & Ocasio, 2008). In The Company these were the commercial market logic and increasingly also a responsibility-sustainability logic.

Responsibility-sustainability had increasingly become embedded into The Company's logic as suggested by Anna from Human Resources: 'We live it, because it's part of our DNA at this stage' [P59]. Josephine from Customer Relations reinforced this statement by claiming that it is 'in the core of everything that we do and it's in our DNA' [P31]. As the dominance of the commercial logic decreased, The Company's business model logic increasingly became a 'blended' logic of action. It was a blend of commercial and responsibility-sustainability logics. We will later revisit blending of logics and resulting tensions, fueling business model change. Processes of alignment, misalignment

and realignment of distinct logics of action have been found to be drivers of organizational change (Bacharach, et al., 1996).

#### **Devices**

Business models may also be understood as devices (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). An example for this second perspective is 'that picture' [Denise, Subsidiary Company, P21] of the business model in the annual report of The Company. Devices are objects that have been programmed or 'inscribed' by another actor to develop a particular logic of action, to do certain things (Akrich, 1992; Akrich & Latour, 1992). The 'picture' in the annual report had been inscribed to communicate The Company's business model to readers. The 'Being Responsible' device had been inscribed to make other actors enact responsibility-sustainability (Paper 5).

How can devices carry a particular logic of action? Akrich and Latour (1992) use the example of hotel key chains with bulky objects attached to them. Such key chains have inscribed the action of bringing them back to the hotel reception. The 'inscription' consists of their inconvenient, little portable nature. It reminds hotel guests to bring keys back before leaving. Such key chains have a very simple logic of action inscribed. Interpreted through Bacharach and Mundell's (1993, p. 423) definition of logics of action, the heavy weight reminds the actor of the 'implicit relationship between means', bringing keys back to the reception, 'and goals', for the hotel to have control over their keys. The device carries this logic of action in its inscription.

Admittedly, the logics of action of business models are more complex, but they also rely on the process of inscription. The business model literature provides us with several examples. For instance, Magretta (2002, p. 90) explains how logics are inscribed into devices by 'tying narratives into numbers'. This may happen, for instance, by establishing a spreadsheet as a business model device. Doganova and Eyquem-Renault (2009) explain how the writing of business plans inscribes the resulting document with the vision of the future venture and of its value logic. They also mention presentations, articles and visual models as devices inscribed with such a logic. Demil and Lecocq (2015) find how trademarks, mobile apps and products can be inscribed with a business model logic as well. They observe how these devices together changed the business model of a large home appliances company.

In The Company, two devices that were briefly mentioned above were of particular relevance. The Company's business model was described as a one-page figure in the annual report. Parts of the responsibility-sustainability program 'Being Responsible' had been inscribed into this description. It was positioned into the device as an 'enabler'. Together with five other enablers, 'Being Responsible' was positioned to support The Company's core activities. The complete responsibility-sustainability program was reflected in another figure. It described the 'Being Responsible' program in detail (Paper 5). This 'Being Responsible' device has been found change the business model actor network (Paper 6). By doing so, it had become a business model device as well.

In summary, any device may be a business model device if it has a business model logic (existing or aspired) inscribed or if it participates in the business model. Such devices are likely to become actors shaping the business model actor network according to their inscriptions. In a later section this point will be illustrated further by describing what characteristics make a business model 'change device'.

#### Actor Networks

Paul from Commercial Support had observed: 'WE [the actors] are actually doing it' [P20]. In a third perspective, business models are understood as actor-networks (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). The actors and the networks they construct enact a business model 'activity system' (Casadesus-Masanell & Ricart, 2010; Zott, et al., 2011; Zott & Amit, 2010). In The Company core activities enacted by the network were 'buy, move and sell' [Earl, Corporate Affairs, P29]. Interviewees had described the business model and its actors (Paper 6). Actors in the network were not only human. On the one hand, interviewees did refer to 'human' actors such as teams, employees and their values. On the other hand, they also mentioned actors that were 'nonhuman' such as products, shops and technologies. Actor-network theory is centred on such human-nonhuman networks (Callon, 1986; Latour, 2005; Law, 1992).

Interviewees had described how these actors were entangled and how they, together, formed the actor network. Together, they were perceived to *be* The Company's business model as they enacted it. This description of The Company's business model actor network closely resembled Law's (2009, p. 141) definition:

'The enactment of (...) heterogeneous relations that produce (...) all kinds of actors including objects, subjects, human beings, machines, animals, "nature,"

ideas, organizations, inequalities, scale and sizes, and geographical arrangements.'

Actor-network theory describes how actors form associations between each other which together construct a network of actors (Latour, 2005). The concept of 'heterogeneous agency' suggests that there can never be any purely human or purely nonhuman agency (Callon & Law, 1997). Humans and nonhumans always act together. Take, for instance, 'sell' as one of The Company's main activities. One could argue that products don't sell themselves. Accordingly, the agency requires human actors, for instance, the sales department. However, the activity would not be carried out either, if there was nothing to sell. The action requires the product as a nonhuman actor.

Callon (1991, p. 133) describes a particular type of actor network in the commercial-economic context, a 'techno-economic network':

'A coordinated set of heterogeneous actors which interact (...) to develop, produce, distribute and diffuse methods for creating goods and services'

Prominent definitions of the business model closely resemble this description. Business models fulfil the functions of 'value creation, delivery, and capture' (Teece, 2010, p. 172). They are an 'architecture of the product, service (...) including a description of the various business actors and their roles' (Timmers, 1998, p. 1). In actor-network theory terms, business models may also be understood as 'economic agencements'. An economic agencement is an actor network that 'renders things, behaviours, and processes economic' (Muniesa, et al., 2007, p. 3). The business model renders things economic. It aligns actors to form a network that bring a certain product or service to the market. Through market exchange, products and the whole actor network are rendered economic (Doganova & Eyquem-Renault, 2009). The idea of business models as actor networks is an emerging stream of business model literature (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009; Randles & Laasch, 2016, Paper 1 in this thesis).

# Addressing Research Question 1

The first research question was: 'What dynamics of business model logics, devices and actor networks are involved in business models change?' This section of the paper has introduced the characteristics of and dynamics between business model logics, devices, and actor networks. The dynamics can be summarized as a first main conceptual statement of this paper:

I. Business models are value logics inscribed into devices and enacted by actor networks.

Accordingly, business model change may occur as change inside each of the three states, logics, devices and actor networks. It may also involve two particular types of dynamics between them. The first dynamic is the *inscription* of logics into devices. It takes place between logics and devices. The second dynamic is the enactment of logics by the actor network. It involves logics and actor networks. The next section will answer the second research question and introduce one more type of dynamic which is central to business model change. *Translation* is a dynamic between devices and actor networks.

# **Change as Translation**

This section is centred on addressing the second question: 'What are necessary characteristics of a business model change device?' The business model change processes which the 'Being Responsible' device was involved in will be interpreted through the lens of 'translation'. Three device characteristics were found to be necessary for the device's ability to engage in translation and to change the business model actor network: Misalignment, power and circulation. Before we get to the description of these three characteristics, translation will be introduced.

Callon (1986; 1991) proposes the process of translation in order to describe how actors construct actor networks. Translation relates distinct actors one with the other and this way constructs a network. In translation actors attempt to 'enrol' other actors into a network that corresponds to their logic of action (Callon, 1986). How does translation happen? According to Callon (1991), 'translation involves a translator, something that is translated, and a medium' that it is translated into. In the context of this paper, the device ('a translator') translates its logic ('that is translated') into other actors ('medium').

For instance, the 'Being Responsible' device had the logic of responsibility-sustainability inscribed. Its agency was directed at making other actors enact this logic. It translated this logic, for instance, into the balanced scorecard actor. The scorecard guided the behavior of executives. In the responsibility-sustainability logic this meant an opportunity to pervasively influence executives to enact responsibility-sustainability. Accordingly, 'Being Responsible' translated responsibility-sustainability into the scorecard by adding responsibility-sustainability indicators to it. The 'Being Responsible' device had translated its logic into the scorecard. The scorecard in turn was a main actor in the

business model. It now was not only enrolled in the business model network, but also in the responsibility-sustainability network (Paper 6). The scorecard actor had begun to enact a blended logic, commercial and responsibility-sustainability. Devices that change business models can be explained through processes of translation: Devices may change a business model actor network by translating their logic into its actors.

However, translation is a mutual process. Also actors with The Company's commercial logic of action, of the 'efficient money-making machine', engaged in translation. Imagine, for instance, a marketing executive driven by a commercial program of action of increasing sales. She may attempt to translate that commercial logic into 'Being Responsible'; to enrol it into the commercial business model network. If she succeeded in translation, 'Being Responsible' would become enrolled to help her increase sales. For instance, it may be translated into a cause-related marketing campaign that increases sales, by associating products with a responsibility-sustainability care.

How to distinguish between 'normal' actors in the network and the ones that drive translation and change? Callon (1986) stresses the role of a change actor which he calls a 'primum movens', a primary actor driving the change process. Such an actor is at the centre of the translation process that constructs actor networks. Such actors have also been called change actants (Bengtsson & Ågerfalk, 2011) or focal actors (Ramírez, et al., 2011). In the context of business model change such actors may be, among many others, a visionary CEO, a new legislation, a new technology or also a device like 'Being Responsible'. Any actor driving change of a company's actor network towards a new enacted business model is a change actor.

It has been found that the 'Being Responsible' device had developed several types of agency that were directed at changing the business model through translation. As a consequence, it had pervasively, albeit incrementally, changed the business model of The Company (see Paper 6). What are the characteristics that make a device like 'Being Responsible' a business model change device? The combined business model and actornetwork theory literature will be the basis for theorizing the following three characteristics of change devices: Misalignment, power and circulation.

<sup>&</sup>lt;sup>7</sup> Primum movens means in Latin for 'he/she/it who moves first'.

# Misalignment

In the previous section we have seen that devices may change business model actor networks through translation. Translation requires difference and tension between the logics of the actors involved in translation. If the logic of two actors is identical, there is no need for mutual translation. There will be no attempts to mutually enrol each other and ultimately no change. For instance, The Company's business model device in the annual report described perfectly the enacted business model. It was neutral in terms of translation:

'This business model is a sort of (...) illustrative thing for the annual report (...) just a piece of art [Grant, CRS Team, P11].

Figuratively speaking, there is no need for translation if actors speak exactly the same language. In this case the logics enacted by actors are mutually aligned with each other and with the larger business model logic. Such 'alignment' has been described as an aspired outcome of the translation process, a 'perfect translation' (Callon, 1991, p. 145). Randles and Laasch (2016, p.57, Paper 1 in this thesis) discuss alignment and misalignment in the business model context:

'When the de-facto [enacted] and the artifactual [device] dimensions are aligned within an organization, deep institutionalization results from the interaction of these broad correspondences with flexibly interpreted local responses—known as translations (Callon, 1986)—across the organization.

But when they are misaligned, or confusing, the artifactual [device] and defacto [enacted] business model logics may be resolved in practice through other means (involving contestation, struggles and compromises), as rational actors seek to reconcile for themselves competing institutional logics, such as sustainability and commercial maximisation logics'

In these quotes alignment is described as a desirable outcome in the business model context. However, it also stifles change, as it reduces the tensions necessary for translation. According to Callon (1991), alignment refers to overcoming the tensions between actors' logics. A shared logic becomes universally taken for granted across actors and therefore self-evident (Callon, 1991). Accordingly, alignment explains business model stabilization. Tensions between actors' logics are reduced and translation activity decreases.

The opposite mechanism is 'misalignment', where different logics coexist in tension. These tensions increase translation activity. Misalignment explains change in actor

networks enacting business models. It fuels translation processes by creating tensions between actors' distinct logics. In these processes actors are involved in mutually defining each other according to their respective logics of action. Bacharach and colleagues (1996) had explained organizational change through a series of alignment, misalignment and realignment of logics of action. Likewise, business model change can be explained by the disturbance of an aligned business model actor network by misalignment. Misalignment creates tensions between actors and their logics, which fuel translation. This in turn realigns the business model actor network. Through the change during translation, the newly aligned actor network enacts a changed business model.

What does this mean for the characteristics of a business model change device? Such a device needs to be inscribed with a logic that is misaligned with the logic dominantly enacted by the business model actor network. As observed in The Company, such misalignment creates tensions and triggers translation processes (Paper 6). This process may change enacted business models, their devices and their logics.

The 'Being Responsible' device was inscribed with a logic of action of responsibility-sustainability. It was significantly distinct from the dominant 'efficient money-making machine' logic. Is such a misaligned inscription sufficient for a change device? Will it succeed to enrol other actors into the network enacting its logic? Are there other necessary characteristics of a device for it to fuel translation processes that lead to business model change? The next two sections illustrate the importance of 'power' and 'circulation' as the second and third necessary characteristics of a business model change device.

# Power

A misaligned logic will not lead to change if the device does not have the power to make other actors enact it. How can a device like 'Being Responsible' develop the power to make actors enact its responsibility-sustainability logic? How does it, for instance, get the fictitious marketing executive mentioned above, to become an actor for responsibility-sustainability? In actor network theory, power is understood as an actor's capability to enrol other actors into their network:

'Power (...) means describing the way in which actors are defined, associated, and simultaneously obliged to remain faithful to their alliances.' (Callon, 1986, p. 75)

In an actor network, power is about winning 'veritable battles' (p. 66). It means to be able to enrol an actor into the network with ones' logic. This implies being able to disassociate this actor from a competing network with a distinct logic. Power in actor-network theory, however, is not something that an actor possesses or that can be stored. It rather is something that develops and increases through associating with other actors during the translation process. Law (1991, p. 18) explains that power is the 'set of relations' to other actors. The 'Being Responsible' device, for instance, translated into The Company's balanced scorecard. It did so by embedding responsibility-sustainability indicators into the larger set of the scorecard's indicators. This enrolment of the balanced scorecard actor, in turn, increased the power of the 'Being Responsible' device. It allowed it to influence executives, who aligned their behavior with these indicators. Latour (1984, p. 264) pinpoints this phenomenon: 'In the translation model, power is composed here and now by enrolling many actors.'

An observation in The Company establishes an important exception to the statement made above, that power cannot be 'stored'. By analyzing the 'Being Responsible' device inscription, it was found that it was preconfigured with a set of 'latent relations' to other actors (Paper 5). For instance, the device inscription as a value created a latent relation to all commercial operations employees who aligned their behavior with these values. The device's 'responsible purchasing' care directly related to the purchasing department as an actor. The 'employment practices' care related to human resources. We have seen above that relations to other actors mean power. One could argue that almost like a battery the device was pre-charged with relational power in its inscription. However, this power could only be accessible when these latent relations were activated. This leads directly into the importance of circulation as the last of our three necessary characteristics of change devices.

#### Circulation

A device may have the latent power to enrol actors and make them enact its misaligned logic, but still not activate this power. A key characteristic of devices is that they may be mobile and 'circulate' across an actor network. They may cross boundaries into distinct communities as 'boundary objects' (Star & Griesemer, 1989). They may also morph into distinct forms as so called 'body multiple' (De Laet & Mol, 2000). These characteristics allow devices to circulate across networks and enrol actors in multiple sites (Callon, 1991;

Latour, 1996). Through circulation, devices may activate their latent relations and enrol additional actors.

However, a device that does not have these characteristics might not make contact with the other actors it is meant to enrol. It might not 'circulate' and never activate or develop its power. A good example for such a device, again, is the business model description in the annual report referred to above. One might assume that a business model description, as prominently positioned as in a company's annual report, should make a difference. However, executives described it as not having an impact on The Company's actors. When asking why that was, Jacob from the CRS Team explained that this device was typically accessed by a limited group of actors, 'the city and our investors' [Jacob, CRS Team, P7]. This business model device in the annual report was barely circulated among business model actors. This significantly reduced its ability to shape The Company's business model actor network.

The ability to circulate is the third necessary characteristic of a business model change device. Business models are a holistic concept. They are meant to embrace the underlying logic of the business model actor network pervasively throughout the whole business and beyond (Casadesus-Masanell & Ricart, 2010; Chesbrough & Rosenbloom, 2002; Teece, 2010; Zott & Amit, 2010). This includes, for instance, headquarters, local operations, the supply chain and community. Accordingly, devices inscribed to change the business model, have to enrol actors across these different sites. In order to do so, they have to circulate pervasively across a business. They have to enter these sites to enrol actors into their network.

The 'Being Responsible' device circulated pervasively through The Company's headquarters, executive management and commercial operations sites (Paper 6). This ability to circulate could be attributed to two main factors. Firstly, 'Being Responsible' acted as a boundary object able to cross the boundaries between different sites in The Company. Responsibility-sustainability cares covered under 'Being Responsible', called for action in many parts of The Company. For instance, environmental protection called for action in operations. The employment practices care called for action in human resources. 'Being Responsible' was also introduced as The Company's third value. This made it relevant for any employee across sites. It encouraged them to take action and helped responsibility-sustainability to enter into virtually every part of The Company's business model actor network. Secondly, the 'Being Responsible' device was accompanied

by several human chaperons tasked with helping it circulate. Their job was 'being an advocate, being almost a campaigner' [Paul, Commercial Support, P20]. They included, for instance, the CEO of The Company and the CRS Team, which was created explicitly to promote the 'Being Responsible' device.

## Addressing Research Question 2

The second research question was: 'What are necessary characteristics of a business model change device?' It has been proposed in this section that business model change happens through translation between actors of the business model actor network. This can be summarized as the second conceptual statement of this paper:

II. Business model change can be explained through processes of translation between an actor network enacting a dominant logic and a device inscribed with a misaligned logic.

For a business model change device to drive translation and subsequent business model change, three necessary characteristics were identified: Misalignment, power and circulation. First, change devices have to be inscribed with a logic that is misaligned with the dominant logic of the business model. This creates tensions which in turn fuel translation. Secondly, such a device requires power to enrol other actors into enacting its logic. A device may be 'charged' with relational power. Third, a change device has to circulate to reach the actors it is meant to enrol into the network enacting its logic. These three characteristics are summarized in this paper's third conceptual statement:

III. A business model change device requires a misaligned logic, has to develop relational power and to circulate.

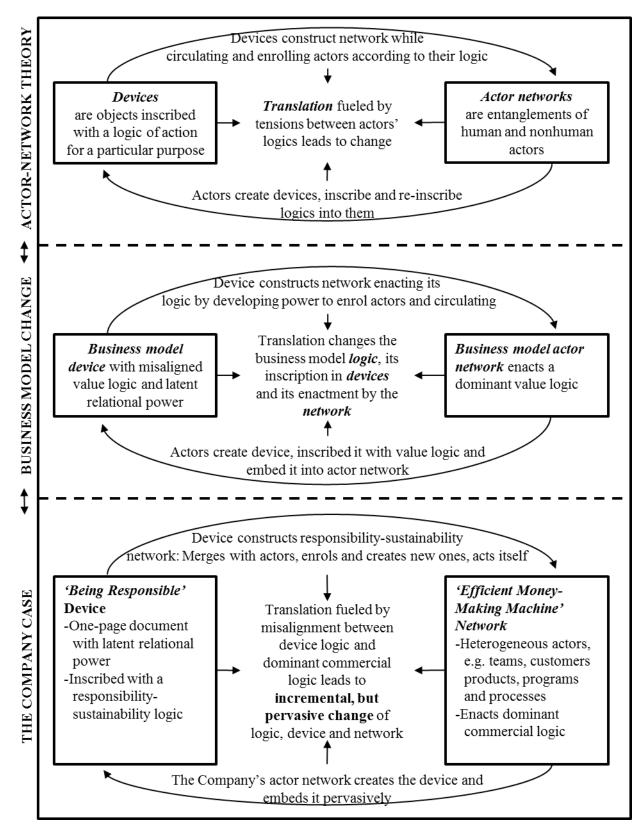
We will now bring the conceptual insights from answering research question 1 and 2 together to build a framework of business model change as translation.

## Framework and Case: Business Model Change as Translation

The conceptual developments described throughout this paper can be assembled in one framework of business model change as translation. Figure P7. 1 is a summary of the framework's actor-network theory origins; its implications for the business model context; and its application to the case of The Company. The framework is composed of three sections, top to bottom, each representing one of these areas. The upper section of the figure covers the conceptual foundations related to actor network theory. This is then

transferred to the business model context in the middle section. This in turn is applied to The Company case in the lowest section.

Figure P7. 1 A Translation Framework of Business Model Change



In the following case description, we will move between these sections. Common elements across sections are the actor network in the right box and the device in the left box. All three sections also describe processes of translation connecting devices and actor networks. These translation processes are subdivided into how the actor network influences the device (arrow right to left) and vice versa, how the device influences other actors and the network (left to right). Processes and outcomes of change are described in the middle between the device and actor network boxes. The model combines the findings from addressing both research questions. At the core of the framework are the three conceptual statements introduced earlier:

- I. Business models are value logics inscribed into devices and enacted by actor networks.
- II. Business model change can be explained through processes of translation between an actor network enacting a dominant logic and a device inscribed with a misaligned logic.
- III. A business model change device requires a misaligned logic, has to develop relational power and to circulate.

These points have been illustrated extensively from a conceptual angle, albeit with illustrative examples from The Company. The following case study inverts this presentation form. The Company case will be foregrounded with the framework supporting it in the background.

The framework of business model change as translation was developed from the actor network theory literature in parallel with a 30 months long empirical research project. It involved 'following the actor', the 'Being Responsible' device. The data collected helped to understand how the device changed the business model actor network of 'The Company'. The project led to rich observational data and 104 interviews with 72 individuals<sup>8</sup>. All interviewees were involved in The Company's 'Being Responsible' program. Papers 5 and 6 in this thesis are empirical papers based on the same case. This Paper 7 integrates these papers' empirical insights with the literature basis to construct the framework of business model change as translation.

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<sup>&</sup>lt;sup>8</sup> The numbers applied together with quotes from interviewees refer to the respective interviewee's number. For instance, P20 stands for Paul from Commercial Support who was the 20<sup>th</sup> person interviewed.

The strong empirical grounding of the framework in The Company case lends itself to using the case as illustration of the framework. This sits well with the methodological feature of actor-network theory to explain theory through empirical cases (Law, 2009). The case has been written in an actor-network theory style. This implies the extensive use of primary data, to let the participants speak themselves. Also, it implies to let the story of the case evolve in its natural flow. It means not to take 'shortcuts' and not to press the case into a predefined conceptual framework:

'Actor-network theory prefers to travel slowly, on small roads, on foot and by paying the full cost' (Latour, 2005, p. 23).

Readers are encouraged to follow the natural development of the case through the conceptual map that is Figure P7. 1. Latour (2005) uses the metaphor of a play, of a theatrical performance to describe actor-network theory studies. In the case we will follow the 'Being Responsible' device like 'an actor on stage' (p. 46). Let's raise the curtain!

Opening Scene: Fixing 'The Efficient Money-Making Machine'?

Interviewees had been asked 'What is The Company's business model?' According their answers the business model was enacted by a network of human and nonhuman actors.

Actors were, for instance, products, technologies, the CEO, executives, or also the values

'The purpose of the business model is to make a profitable business (...) purpose of The Company, as an organization is commercial and financial' [Earl, Corporate Affairs, P29]

statement (Paper 6). These actors' logic of action dominantly was a commercial one:

'Certainly, we live in the commercial reality of the business (...) we're a business that operates to serve shareholders and make a profit for them (...) to help the business grow' [Ria, Corporate Affairs, P24].

Actors in The Company's headquarters had created 'Being Responsible' as a means to address a fault in this commercial business model logic. The Company was seen as a highly efficient and profitable, but not very likeable machine by customers. This was known as the logic of the 'efficient money-making machine' [Jacob, CRS Team, P7].

In the past, customers had been loyal to The Company, because this machine would do the best job when it came to serving their needs effectively and efficiently. However, changes in The Company's environment had decreased the feasibility of this loyalty model. The plan was to, instead, create 'emotional loyalty' by strengthening The Company's

humane side. A group around the CEO wanted to make The Company 'being loved again' [Jacob, CRS Team, P7; Kay, CRS Team P10; Ruth, CRS Liaison, P26; Jed, In Shop, P54]. They constructed and inscribed 'Being Responsible' to promote responsibility-sustainability for this purpose.

The 'Being Responsible' device had been inscribed with a responsibility-sustainability logic. Its inscription was aimed at furthering particular responsibility-sustainability cares, such as environmental protection and community welfare. 'Being Responsible' was also introduced as the third value of The Company. The value applied to every employee. These inscriptions came together in a one-page description. 'Being Responsible' was represented by this one-page document, the device. It participated in The Company's actor network:

'The presence of having a document (...) having a one page infographic (...) that you can show them' [Jay, Corporate Affairs, P23]

Another device, one that was explicitly related to the business model, was its description in The Company's annual report. Devices are inscribed by other actors with a particular logic of action. This could be the dominant logic currently enacted by the business model actor network or a distinct, potentially misaligned logic. The annual report business model device was inscribed with the 'efficient money-making machine' logic. The 'Being Responsible' device, however, was inscribed with a responsibility-sustainability logic. This logic was drastically distinct from the 'efficient money-making machine' logic dominantly enacted by The Company's business model actor network. Would this 'subversive' device change The Company's business model? If so, how?

The Story Unfolds: Tensions Fueling Translation

As elaborated in the conceptual part of this paper, translation needs tension. Only if actors' logics of action differ will there be translation. Tension fuels translation and translation is likely to create change of an actor network. The logic of action inscribed in the 'Being Responsible' device was drastically different from the commercially-driven 'efficient money-making machine' logic dominantly enacted by The Company's business model actor network:

'It's not about profit or pride as a company. It's about the people and the purpose of us doing that [Being Responsible] activity' [Lara, CRS Liaison, P44]

The rising tensions are well documented in company employees' statements. One anecdote relates to the public 'Being Responsible' launch event. The tension showed in the reaction of an executive representing a commercial area, whose activity was conflicting with one of the 'Being Responsible' cares. Jacob from the CRS team heard him 'mutter under his breath, well that's me in trouble now' [P7]. Rosie from Human Resources describes the origin of these tensions:

'So we are quite a[n] (...) operational business in terms of delivery (...) therefore working with the Being Responsible team (...) echoing some of the, I guess, not frustration but there's sometimes tension between the two, is that it is coming very much from a different place.' [P66]

However, it was this very tension-creating misalignment that provided the fuel for the translation process leading to change. This is present in the reasoning of Ria from Corporate Affairs. She appeared torn between the *'Being Responsible'* logic and the commercial logic:

'We want to nudge the business to go a bit further to be industry leading on responsible business (...), but within that commercial world (...) we need to make some money out of it as well' [P24].

Sometimes the tensions between logics would be of such drastic nature that the highest levels of leadership had to intervene. A great example is an episode from the process of integrating responsibility-sustainability key performance indicators into the balanced scorecard. The decision to introduce a particular indicator was 'led from the top, (...) the CEO of the UK business with support from the CEO of the group' [Sue, CRS Team, P16]. This intervention was made necessary due to the tensions between commercial and responsibility-sustainability:

'Ultimately the KPI<sup>9</sup> for Being Responsible potentially is in conflict with the KPI of the key area of the business which (...) is measured on how much they sell and how much money they make' [Sue, CRS Team, P16]

These examples illustrate how the translation process was fueled by tensions. Tensions resulted from the *'Being Responsible'* device's responsibility-sustainability logic. It was misaligned with the dominantly enacted commercial business model logic. However, it appeared that the device had been inscribed with considerable latent relational power

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<sup>&</sup>lt;sup>9</sup> KPI stands for key performance indicator.

(Paper 5). It was able to win over many of the actors to enact responsibility-sustainability and to, at least partly, disassociate them from the 'efficient money-making machine' logic.

Key to this was the device's involvement in translation. In Paper 5, we had seen how 'Being Responsible' had developed different types of agency to foster translation processes. This agency is best described in the voice of interviewees. First, 'Being Responsible' had been involved in starting conversations: 'Those things for me are much more powerful conversation starters because that's how you get the emotional reaction' [Jay, Corporate Affairs, P23]. Secondly, it connected actors and helped them to structure a network: 'So Being Responsible doesn't sit over everything, but (...) it helps connect things' [Kathy, Commercial Support, P25]. Third, it motivated enactment: 'We have to do this because it's part of our Being Responsible strategy (...) they understand that that's the right thing to do and they want to do it for that reason' [Linda, CRS Liaison, P68]. 'Being Responsible' also legitimized actions and enabled actors to take action: 'It made it much easier for me to create time for it and for me to just go to my boss and say (...) look, it's aligned with exactly what The Company wants me to be doing. That was fantastic. So having that there as an excuse to go and do these Being Responsible things' [Martin, Infrastructure Team, P47]. Finally, it framed and aligned action: 'I suppose, so that we can align ourselves (...) what we're doing and how to stick to that agenda' [Dana, Supplier Company, P70].

A 'Rather' Happy End: Incremental, but Pervasive Change

From its creation on, 'Being Responsible' had circulated across The Company and developed power to enrol a wide variety of actors to enact responsibility-sustainability. The device's ability to circulate was boosted by several factors. One of them was the CEO's support and communication of the program. Kathy from Commercial Support described, for instance, the high degree of familiarity of employees with the program created through the CEO's launch speech:

'So everyone heard it, and everybody got it (...) everybody said alright, it's all part of Being Responsible, and everybody goes, oh yes, okay, I know what that is.' [P25]

Also, the newly created CRS Team helped 'Being Responsible' to circulate. Team members were its advocates wherever it circulated across the business: 'It's about bringing them [cares] to life, so being an advocate, being almost a campaigner' [Paul, Commercial

Support, P20]. While circulating, 'Being Responsible' gradually constructed an actor network enacting its responsibility-sustainability logic.

In Paper 6 it was found that it did so in four ways. It merged with existing actors, such as in the case of The Company's balanced scorecard, into which responsibility-sustainability indicators were included. It enrolled existing actors such as the executives who became part of the responsibility-sustainability executive committee. 'Being Responsible' also led to the creation of new actors such as various new programs. They were launched to support responsibility-sustainability cares. Last, but not least, it became an actor itself.

*'Being Responsible'* and with it responsibility-sustainability became pervasively translated into The Company's business model actor network. In the *'corporate headquarter'* it became embedded in its original form as the strategy document which we had called *'the device'*. It translated into key performance indicators in *'executive management'*. It also translated into a company value influencing employees in *'commercial operations'* (Paper 6).

As a result, 'Being Responsible' had changed The Company's business model pervasively, albeit incrementally (Paper 6). As illustrated above many actors central to the 'old' business model actor network (e.g. the balanced scorecard, the CEO, suppliers, operational employees) had been enrolled to enact the responsibility-sustainability logic additionally to the commercial logic. They now enacted a blended logic, commercial and responsibility-sustainability. This is well reflected in the quote by Anna from Human Resources:

'Being Responsible is part of our whole business model. So if you think of all the work that we do that is like a strand that goes through every area, every function. (...) so if you even look at core purpose and what it is that we stand for (...) our business model and our strategy and how we approach business. When you filter down into the various operating models across the business Being Responsible becomes a fine common thread throughout. (...) if you spoke to anybody in the business, whether (...) somebody who works on our back door taking in our delivery or whether it's one of our business leaders (...) Being Responsible (...) is engrained.' [P59]

This shows that the responsibility-sustainability device 'Being Responsible' had changed the business model. The case analysis reinforces the initial statement by Graham from the CRS Team:

'To push forward the sustainability agenda that to me is the kind of change, structural change in our business model' [P17].

This is a 'rather' happy ending. On the one hand, we have seen an impressive story of pervasive, albeit incremental business model change towards responsibility-sustainability. This is a happy ending seen from an angle of responsibility-sustainability. On the other hand, The Company's originally envisioned purpose of the device, creating 'emotional loyalty', had not been achieved entirely. From a commercial logic angle it does not appear to be an entirely happy ending (yet).

## Conclusions, Discussion, Further Research

This paper has introduced a framework of business model change as translation. The framework was based on the business model and actor-network theory literatures. It has been illustrated through and grounded empirically in the case of The Company. In The Company the responsibility-sustainability device 'Being Responsible' had changed the business model pervasively, albeit incrementally.

According to the framework, a business model is a value logic inscribed in devices and enacted by an actor network. Business model change may be driven by the misalignment between a logic inscribed into a business model device and the business model logic that is dominantly enacted by the actor network. Such misalignment creates tensions. Tensions in turn fuel translation processes that change all three business model logics, devices and actor networks. Necessary characteristics of a business model change device are its misaligned inscription, its power to enrol actors and the ability to circulate.

The main contribution of this model is to bring togther the three 'states' of a business model, logics, realities and devices, in one framework explaining their dynamics. This provides us with a more holistic view on what a business model is and does. It complements insights from research conducted from the perspective of one or two of these states. The framework also contributes to the emerging stream of research on devices in business model change (Demil & Lecocq, 2015; Doganova & Eyquem-Renault, 2009). For practitioners, the three necessary characteristics of change devices may be helpful for managing change. Finally, the model contributes to the 'toolbox' of business model

research methods by proposing actor-network theory as an addition. It appears to be a promising conceptual lens and methodology for asking new research questions and for finding new answers to old questions. The following two sections discuss salient implications and potential future research agendas.

Outcomes of Translation beyond Business Model Change?

This paper has been focused on business model change in an established company. In a parallel study, Demil and Lecocq (2015) found how multiple devices can effect radical business model change in an established business. Their finding is complementary with the finding in The Company context. The Company research was centred on an individual device as opposed to multiple devices in theirs. It led to incremental instead of radical change. Together, these papers provide rich complementary insight into the role of devices in business model change in the context of established companies.

However, the dynamics between business model logics, devices and actor networks may also explain processes directed at distinct outcomes, not only change. Particularly, two outcomes stick out. First, the framework could be used to explain business model 'maintenance', quite the contrary to change. Imagine a scenario, where the logics of action of a number of actors in a business model begin to diverge from the dominant business model. This might destabilize the business model as a whole. Actors might react by inscribing devices that provide a 'template' business model logic (Baden-Fuller & Morgan, 2010). Such devices may then be circulated to realign the divergent actors according to this template. As a matter of fact, a group of high-level executives at The Company had begun to design such a device towards the end of this research project. Further research into such business model maintenance or stabilization devices appears promising.

Secondly, think about the entrepreneurial application of business model 'creation'. In this context a device is inscribed with a particular business model logic, but it is not connected to an existing company's actor network. This has been studied by Doganova and Eyquem-Renault (2009). They observe how business model devices were instrumental in building an actor network from scratch, which enacted the value logic inscribed in the device. In this setting business model devices become a 'recipe' (Baden-Fuller & Morgan, 2010). The translation framework may provide new insights into such processes of business model 'creation'.

Accordingly, the dynamics between devices may explain all three, business model change, maintenance and creation. <sup>10</sup> Further research may conceptualize and empirically study the distinct dynamics of all three. In the translation framework, change has been explained through misalignment between the logics of devices and dominantly enacted business model logics. Maintenance may be explained through alignment between them. Business model creation can be explained through a setting where a business model logic inscribed in a device does not have a corresponding actor network yet.

Devices: Deliberate Misalignment, Managing Tensions, Unintended Consequences

This paper has foregrounded the change agency of misaligned devices. A first implication is centred on a change strategy that may create deliberate misalignment in order to effect business model change. This relates to Akrich (1992) who had proposed that 'the work of innovators is that of "inscribing" this vision of (or prediction about) the world in (...) new object'. In actor-network theory this is known as 'heterogeneous engineering'. Engineers, meaning actors that shape devices, may inscribe a vision of a heterogeneous actor network into a device. The devices may then be 'performative' in creating this actor network, the very world they describe (Callon, 2007). In The Company we have seen how such misaligned inscriptions had changed the business model.

Secondly, misaligned devices create *tensions*. Further research might transfer this finding from the change context to recent work on productive tensions in the organization and management context (Battilana, et al., 2015); to research on how to manage such tensions in the corporate sustainability context (Hahn, et al., 2014; Hahn, et al., 2015; Van der Byl & Slawinski, 2015); and on managerial coping with divergent logics (Pache & Santos, 2010; 2013). Further research might explore how misaligned devices may be used as managerial coping strategies in these contexts.

Third, misaligned devices are likely to have *unintended consequences*. From the translation literature we see that devices cannot be trusted to 'do as they are told'. A device inscribed with a particular logic of action is not a stable object. It changes through translation. This insight may contribute to the business model research focused on nonlinear business model change. Relevant examples are concepts of business model experimentation, trial and error learning as well as iteration (Chesbrough, 2010; McGrath,

<sup>&</sup>lt;sup>10</sup> The notion of business model creation, change, and maintenance has been inspired by a similar notion in institutional work, which is defined as work *'creating, maintaining and disrupting institutions'* (Lawrence & Suddaby, 2006, p. 215).

2010; Sosna, et al., 2010). For managerial application, this invokes caution. The use of misaligned devices as managerial means implies continuous attention and readjustment. The focus of attention therefore should be broadened from device design, which much of the business model literature is about, towards the manipulation and dynamics of devices throughout change processes.

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