

Sub-theme 52: Projects for Innovation: Managing Novelty and Uncertainty

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Creating the context of project innovation: Narrative interactions

1. Introduction

This paper follows the ‘narrative turn’ in organisation studies (Fenton & Langley, 2011; Rhodes & Brown, 2005) and extends it to project management studies. We will do this by exploring interactions between the narratives of innovation as promoted by government and those mobilised in response by senior managers within project-based firms. The paper focuses on understanding how the meaning of innovation is socially constructed through the use of narratives (Bartel & Garud, 2009). Narratives of innovation are consistently promoted by policy makers to meet the targets set by the government. Yet, little is known how firm-level narratives of innovation interact with these government-level narratives. For example, the UK government has advocated Building Information Modelling (BIM) use, but there is evidence of a mismatch between the government narrative and how project-based firms in the construction sector practice BIM (Davies & Harty, 2013).

Project-based firms are recognised to be intrinsically innovative on the basis that they continuously (re)create new organisational structures on a project-by-project basis in accordance with specific needs of each project (Davies & Brady, 2016; Hobday, 2000; Winch, 2014). Furthermore, senior managers within project-based firms face the challenge of not only creating an innovation narrative that provides a sense of direction for the firm, but also aligning it with the innovation agenda of the government. However, the current literature is largely silent on interaction between narratives of innovation at government level and those generated by project-based firms, and the theoretical and practical contributions of our paper will be to provide insight into this interaction. In keeping with the theme of the Colloquium, we reflect on ‘surprise’ and the unexpected (narratives of innovation at project-based firm level) and its opposite to ‘mundaneness’ and the expected (narratives of innovation at government level).

There has been a shift from studying narratives as separate, complete and self-sufficient texts towards a study of narratives in context and interaction (Stapleton & Wilson, 2017). Narratives, their content and context are central to interpretive approaches in narrative research. Narratives occur in interactions, they inform and shape actions (Rantakari & Vaara, 2017). As told or performed in interactional settings, narratives of innovation reflect both the social and cultural contexts from which they are derived, and local interactions including roles and relationships that participants manage during the innovation process (Garud, Gehman, & Giuliani, 2014a). To date, little is known about how narratives of innovation interact between government and firm levels in terms of how they push and pull each other. There is a knowledge gap in the interaction between narratives of innovation constructed at by government as part of their industrial policy and how firms which are expected to be innovative to meet that government narrative. The key research question that this paper aims to address is: *How do project-based firms respond to the government's narrative of innovation for their sector?*

2. The 'narrative turn' in innovation and project management studies

There is undoubtedly an increasing interest amongst scholars of innovation in the importance of narratives, although there remains little consistency in terms of theoretical approach and scarce empirical investigation (Bartel & Garud, 2009; Garud, Dunbar, & Bartel, 2011). Narratives of innovation are seen to carry important messages about industrial and organisational vision, directions and strategies (Doganova & Eyquem-Renault, 2009; Garud, Schildt, & Lant, 2014b). Bartel and Garud (2009) are among the first who distinguish between narratives that portray innovation in a structured way through the use of a plot, and provisional narratives which capture individual perceptions without any clear plot. The purpose of the former is to promote a particular coherent point of view on innovation, whereas the latter act as more personalized stories about everyday experiences. Denning (2005) also sees the capability to develop narrative tools as essential to the promotion of innovation. Garud *et al.* (2011) further contend that structured narratives provide the organisational memory that enables people to translate emergent ambiguous situations into a meaningful present and future. In contrast, provisional narratives are seen to enable 'real-time problem solving among individuals who must coordinate within and across different domains of activity' (Bartel & Garud, 2009: 112). This quote has a particular resonance with the challenges of managing complex construction projects, not least because of the requirement to

engage with multiple stakeholders beyond the organisational boundary. It also points towards a continuous process of social construction through which project managers (and others) ascribe meanings in interaction with a range of diverse stakeholders. Such locally-ascribed meanings may often contradict the narrative of innovation set by the government. Each project comprises a unique constellation of stakeholders who are themselves active participants in the social construction of innovation.

It is commonly understood that innovations are driven by owner organisations who have a direct relationship with customers and a strong interest in improving performance for those customers (Orstavik, Dainty, & Abbott, 2015; Winch, 2014). By definition capable owners should have innovative capabilities to drive and sustain innovations (Winch & Leiringer, 2016). The UK government narrative is largely about the supply chain being responsible for innovation (HM, 2013; ICE, 2015), with some recent emphasis being placed on the role of clients in driving innovation through the supply chain and projects (Farmer, 2016; ICE, 2017). Suppliers are forced to promote innovative project narratives to owner organisations when bidding for the projects.

In order to develop the project mission into a compelling narrative for innovative projects that will motivate staff and suppliers and commit stakeholders, it needs to be complemented with other materials that communicate the principles underpinning how the project will be delivered such as ethical principles, expectations of suppliers, benefits for stakeholders and the like. This is then (re)iterated to many different audiences and restated in many different ways throughout the project life-cycle (Havermans, Keegan, & Den Hartog, 2015). It also is communicated through various media including digital. For the project narrative to be successful, the owner project team needs to be ‘on message’ in their conversations with suppliers and stakeholders, corporate communications need to be consistent with this message and carefully designed to reach their diverse intended audiences.

Project level narratives have received some attention in the literature. Boddy and Paton (2004) have previously focused on competing narratives of success within major projects. Yet, they see competing narratives as representative of differing perspectives rather in themselves constitutive of the project organising. Winch (2014) highlights the way in which narratives of innovation are linked to ongoing processes of project organising. Havermans *et al.* (2015) allude to the way project managers are required to respond to two sets of competing narratives: (i) from within the projects themselves, and (ii) from the broader organisational context. Tukiainen and Granqvist (2016) examine a university transformation project

characterised as an ‘institutional project’ – a temporary organisation with the aim to change rules, regulations and beliefs within a relatively bounded institutional setting. Their longitudinal study address temporary organising as the interplay of structure and agency (Bakker, DeFillippi, Schwab, & Sydow, 2016; Winch, 2017). This paper addresses the duality of structure and agency in the way narratives of innovation interact at institutional, firm and project levels. The adopted narrative perspective has points of commonality with Enninga and van der Lugt’s (2016) research on narratives in innovation projects, but also important points of difference. Enninga and van der Lugt notably fall short of seeing innovation as a discursive construct, positioning ‘innovation projects’ as a supposed special case of projects more generally. They also view innovation projects as relatively isolated from their broader organisation context, rather than perceiving them as temporary configurations within and around permanent owner organisations (Winch, 2014). Hence their research says relatively little about the social construction of innovation in the context of project organising.

In summary, although there is growing interest in narratives in the settings of project organising, yet little is known about the extent to which different types of narratives, at different levels of analysis, are related to each other. The current literature is largely silent on the way in which narratives of innovation interact, and the dynamics and implications of these interactions. This paper proposes to address this gap both theoretically and empirically.

3. Narrative interactions in organising

Dvora (1996) in her book “How does a policy mean?” encourages us to think about the interactions of narratives at policy and organisational levels. She crafts her work as an interpretive approach focusing on the meanings of policies, values, feelings, beliefs, and processes by which meanings are communicated to and “read” by various audiences. Building upon the work of Taylor (1988), policies may be seen as expressive statements or acts, through which a dominant group expresses its identity. The emphasis is placed on policies’ roles in the expression, inculcation, and validation of values, beliefs, and feelings, as well as in the distribution of materials. A policy may be seen as a claim for attention, at least, and possibly for material response. Action-text-interpretations are in a continuous process of interaction. Dvora (1996) distinguished between an image that is projected to external stakeholders (clients, personnel, sponsors, policymakers) and an identity that is conveyed to internal agency personnel, to guide them in their tasks.

There is an emerging work on counter-narratives defined as “the stories which people tell and live which offer resistance to, either implicitly or explicitly to dominant cultural narratives” (Andrews, 2004). The distinctive characteristic of counter narratives is oppositional to dominant or master narratives. Focusing on counter-narratives enables us to capture some of the political, social and cultural complexities and tensions in organising. According to Frandsen, Kuhn, and Lundholt (2017), using a counter-narrative lens implies a number of theoretical assumptions on organising: (a) constituted in communication and storytelling, (b) a site of struggle over meaning and identity and (c) engaging a polyphony of voices, from organisational members and broader environment. The counter-narrative lens highlights the struggles over meanings, values and identities that take place in organising (Frandsen *et al.*, 2017). From this approach, the communicative processes and practices are seen as inherently influenced by power: the dominant narrative holds the power to shape individuals’ and organisations’ worldviews, and yet also that this dominant narrative can be challenged and negotiated. This enables us to see how meaning of innovation is contested.

Abolafia (2010) demonstrates the ways elite policy makers use plotted, plausible and repeated narratives to shape the reactions of those in their environment. Top managers sanction organisational values and identity through spoken and written narratives (Bourne & Jenkins, 2013). Organisational narratives tend to be consistent and are often institutionalised in textual forms on websites and company reports. Narratives are seen as performative and rehearsed with an explicit intention of guiding social action (Czarniawska, 2016). Rehearsed, often dominant, narratives also invariably play an important role in legitimising the advocated actions (Buchanan & Dawson, 2007). Sims (2003) further considers the special pressures on managers to tell narratives about their organisations to their superiors and subordinates. Managers are expected to give a coherent macro-level narrative of organisational performance for their staff. But they also continuously and spontaneously construct stories of what is happening in their lives, as well as revising them and imagining the future.

Chreim (2005) points towards the way narratives of organisational change frequently rely on clichéd labels such as ‘innovation’, ‘ability to change’ and ‘commitment of employees’. Innovation is hence often celebrated as a rhetorical end in itself which requires no further justification. To a critical eye, such narratives of change are depressingly familiar, even tending towards the monotonous (Buchanan & Dawson, 2007). Fenton and Langley (2011) allude to the way stories about innovation projects frequently draw both from macro-level narratives as well as *ad hoc* anecdotes derived from past innovation projects. But their

discussion offers little explanation of the way in which narratives and anecdotal stories of innovation interact. Dailey and Browning (2014) come closer in demonstrating the duality between the structured narratives of innovation and personal experiences. They also point towards the connection between the personalised stories articulated by managers and the construction of self-identities. Ibarra and Barbulescu (2010) and Järventie-Thesleff and Tienari (2016) focus on the way people in organisations engage in transitions within and between informal roles, and the implications of these transitions for their self-identities. Building upon the organisation studies into narrative interactions, we argue that it is through a continuous process of interactions between government and project-based firm narratives of innovation that meanings of innovation are re-constructed. We contend that narratives of project innovation and their interactions at different levels play a vital role in building innovative capabilities, formalising innovation strategies, and shaping individual and collective identities and images.

4. Methodology

4.1 Narratology

This research uses insights and methods borrowed from narratology to obtain a better understanding of project innovation narrative interaction. Narratology is the theory and study of narratives (Czarniawska, 1997, 2016); it is a form of qualitative research that uses field texts, such as biographies, reports, field notes, conversations, interviews, pictures, video and symbols as the unit of analysis to research and understand the way people create meaning (Vaara, Sonenshein, & Boje, 2016). Narratology embraces narratives as both the method and phenomena of study (Clandinin, 2007). Building upon the work of Vaara *et al.* (2016), we will identify, examine and compare narratives of innovation at government and project-based firm levels. Although narratology has made significant advances in organizational and management studies (Czarniawska, 1997; Chaidas, 2018; Cunliffe, Luhman, & Boje, 2004), scholars have not yet unleashed its full potential. This research uses a more systematic form of narrative analysis that can deal with large amount of different types of data. The main method in narratology is open ended and unstructured interviewing techniques which allow the interviewees to tell narratives, and subsequently the interviewer to interpret and identify the narratives told. Most organisation research using a narrative approach involved the collection of narratives through interviews in which narrative accounts from respondents are

elicited. According to Fenton and Langley (2011) broader institutionalised ‘grand narratives’ (in our research government-driven narratives) can be distilled from analysis of sets of texts at particular times in history, and that provide meaning for practitioners in their organisations. Our focus is on government narratives as dominant narratives and narratives mobilised by practising managers as counter-narratives. According to Frandsen *et al.* (2017), paying attention to counter-narratives in ethnographic work may prove to be difficult as counter-narratives may not be publicly voiced or even well-articulated among the organisational members. Posing direct questions about conflicting views would rarely bring any relevant empirical materials forward. In this research, government-driven innovation narratives are mainly represented in the textual form and secondarily in verbal and symbolic forms; whereas at firm level innovation narratives are mainly performed in the verbal form and secondarily in textual and symbolic forms.

4.2 Research settings

The construction/infrastructure sector provides a special setting in which narratives of innovation are likely to be visible. Innovations in the UK construction/infrastructure sectors are driven by the need for successful delivery of physical assets such as buildings, roads, bridges, airports, power stations, their operation and value creation for a society. Innovation narratives play an important role in the process. Historically, the UK construction sector is tended to be led by the Government. Successive government policy initiatives have set up the industry targets that drive an innovation in the sector: 33% lower costs, 50% faster delivery, 50% lower emissions and 50% improvement in export (HM, 2013). In other words, there is a need for innovations which are aligned with the government narrative which is cheaper, faster, lower carbon and better export. There is a commonly accepted government narrative about a need for innovation in the UK construction/infrastructure sector. For the last two decades, the UK government has been advocating innovation in the built environment to reduce costs of investment in physical assets such as public buildings, roads, bridges, airports, power stations, their operation and value creation for a society. The ability of the UK construction/infrastructure project-based firm to deliver the targets set by the government depends to an important extent upon the innovation narratives adopted. It is the key industry players, owners and suppliers, who practice innovation. They formalise innovation strategies, create new job roles with innovation in their titles, create an environment and culture of innovation where everyone is committed to it.

4.3 Data collection and analysis

Interviews have long-since been accepted as a valid method for interpretive research within the field of project management. However, to date there has been a systemic over-reliance on the use of semi-structured interviews. Beyond the specific contributions of Löwstedt and Räisänen (2012) there has to date been little recognition of narrative interviews as a research method amongst project management researchers. In contrast to semi-structured interviews, narrative interviews are specifically designed to encourage respondents to tell stories about their experiences in their own way (Mishler, 1991). They are usually comprised of narrative-generating questions which encourage the interviewees to talk about the phenomena under study. The medium of the narrative interview seeks to stimulate people to articulate concepts, to tell stories about themselves, their lived experiences and events.

55 narrative interviews were conducted with senior managers from UK construction and infrastructure owner and supplier firms. These organisations were selected because they increasingly promote innovation narratives in different forms. The participants were selected on the basis of their self-identifications as champions of innovation. The established relationships between the researcher and the industry partners enabled information sharing. The interviewees all had in excess of ten years' professional experience in the construction/infrastructure sector and had all progressed to the senior management (typically director) within their organisations. The aim of interviews was to explore verbal narratives mobilised by industry practitioners in response to a series of prompts about innovation. Interviews were conducted at different points in time in order to examine the ways narratives of innovation change over time, shaping and transforming the industry and sector performance.

The interviews were transcribed in full, thereby aiding subsequent analysis. The analysis method comprised repeated detailed reading of the transcripts, with a focus on flagging points of commonality and points of difference. A coding protocol was adopted which distinguished between national level innovation narratives and project level innovation narratives. Narratives on the level of the organisation were frequently prefaced with comments such 'It is often argued that...', 'the agenda is...', 'we have a strategy in our business...', 'what the industry has to do is...'. Phrases of this nature were specifically identified in the data and used as analytical flags. The subsequent narratives were then searched for recurring plots

around which the data could be structured. Stories were identified in the interview transcripts by introductory phrases such ‘when I was in...’, ‘I remember the time...’, ‘for a number of years when I was...’, ‘Back in time when I worked for...’. There was no expectation that such stories and anecdotes should exclusively refer to project-level experiences, but the analysis was sensitive to the context from which they were derived. The analysis involved continuously moving back-and forth between the entire dataset and emergent findings. This was a longitudinal process of both authors meeting each other to achieve a common understanding and interpretations of the data.

5. Empirical findings

5.1 The government narrative of innovation

The narrative of the need for innovation at the government level is characterised by consistency over time, as evident in a number of UK construction sector reports (e.g. HM Government, 2013; ICE, 2015, 2017). For over two decades there has been a consistent narrative in the UK for greater innovation in order to improve performance of the UK construction sector. Table 1 demonstrated this consistency in a number of reports in the UK government and professional institutions. The identified narratives in the reports initiated by the UK government and professional institutions are seen as dominant narratives of innovation in the UK construction sector.

Table 1 The narratives about the need for innovation to improve performance in the UK construction industry reports

Industry reports on innovation	Narratives about the need for innovation
Government	
“Rethinking construction” by Sir John Egan, 1998	“Too much talent is particularly wasted particularly through failure to recognise the significant contribution that suppliers can make to innovation.”
“Never waste a good crisis” by Andrew Wolstenholme, 2009	“For the last decade, the industry has been sheltered by a healthy economy. This has enabled construction to prosper without having to strive for innovation.” “We believe that the era of client-led change is over, at least for a moment, and that it is now time for the supply side to demonstrate how it can create additional economic social and

	<i>environmental value through innovation, collaboration and integrated working.”</i>
<i>“Industrial strategy: Government and industry in partnership”</i> by HM Government, 2013	<i>“Industry must embrace technological progress to meet the demands of a rapidly changing world. Innovations like Digital Engineering and Design for Manufacture and Assembly will be fundamental to delivering a higher quality, more sustainable built environment for future generations.”</i>
<i>“The Farmer review of the UK construction labour model: Modernise or die”</i> , Farmer, 2016	<i>“The current pace and nature of technological change and innovation in wider society is such that unless the industry embraces this trend at scale, it will miss the greatest single opportunity to improve productivity and offset workforce shrinkage. Failing to embrace change will also further marginalize the industry by reducing its attractiveness to a new generation of workers who will have grown up in a digital world.”</i>
Professional institutions	
<i>“Innovation in construction: Ideas are the currency of the future”</i> by Jamie Dale, The Chartered Institute of Building, 2007	<i>“With 100% of people stating that innovation was important or very important to the future of the industry.” “The institute would like to encourage greater communication of innovation, where people can share their ideas with other industry professionals.”</i>
<i>“Innovation: Stepping up the industry”</i> , Institution of Civil Engineering, 2015	<i>“We talk a lot about innovation in our industry. Most of the leading consultants include innovation as a key company attribute on their websites. Each year we celebrate innovation in the many awards ceremonies...Yet innovation is not routine. We struggle to build the processes that lead to innovation into our day to day work.”</i>
<i>“Reinventing construction: A route to higher productivity”</i> , McKinsey Global Institute, 2017	<i>“Despite the proven ability of new technologies, including digital technologies, and other innovation to lift productivity in other industries, construction lags significantly behind other sectors in its use of digital tools and is slow to adopt new materials, methods, and technology.”</i> <i>“Policy can powerfully promote best practices in, for instance, standardization, scale, and investment in innovation. Coordinated measured need to be taken at every level – local, regional, federal – to achieve effective reform.”</i>
<i>“From transaction to enterprises: A new approach to delivering high performing infrastructure”</i> , Institution of Civil	<i>“The Institution of Civil Engineers recognised the need for a new approach to delivering the UK’s infrastructure that will encourage innovation, produce better outcomes and reduce waste in the delivery process.”</i> <i>“Effective teams are networks of collaborative relationships that encourage an exchange of knowledge and capabilities to</i>

Engineering, 2017	<i>drive improvement and innovation. Owners should take the lead in designing coalitions of suppliers to deliver their programmes.”</i>
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As evident from the Table, there is a consistent narrative about the importance and need for innovation to improve productivity and innovation in the UK construction sector. The majority of the government reports places an emphasis on the role of supplier project-based firms to innovate. Whereas some recent reports initiated by professional institutions begin to emphasise the role of owners in stimulating innovation in the supply chain. This has been reinforced in the narrative interview with Construction Director from the Infrastructure Projects Authority – the government centre of expertise for infrastructure and major projects:

“We want projects faster, cheaper, lower carbon, better exports. That is what government wants. The innovations that give me any of those four, ideally all four of them, what we are looking for. We set it as a high level what we are hoping to achieve. We do not do innovation at a national level. We set the targets for what we want a project to achieve.”

The role of government is seen to set the targets for the owners and suppliers to achieve through innovation. He further provided a specific example of digital agenda set by the government and challenges of getting innovation at national level:

“We mandated BIM to try digital agenda going, but everybody knows that we should make an innovative move from doing things in a linear way using pen and pencils, and we are still doing drawing on the boards, and we map them up, they are getting on site. We still do things in a very old, traditional way. We still build building out of bricks. People keep telling me we have a shortage of bricklayers. The answer in the industry is we need more bricklayers. The questions should be how else can we build so that we will not need bricklayers. This will take us to the factory manufacturing. But then to go from construction to manufacturing is a massive lead. All of the power in the supply chain changes. Logistics becomes more important. So, the whole model changes. So, getting an innovation at national level is really difficult because you need people to buy-in at the national level.”

The Executive Consultant from one of the leading UK infrastructure consultancy has provided an example of the ways innovation is stimulated by the government in project-based firms, taking a critical perspective:

“The way in which you stimulate innovation within the specific area. For instance, if you take Building Information Modelling (BIM). BIM has been specified by the government. They have set the directive down, but there is no structure for organising how the industry responds. So,

looking at this as a structure based on the challenges and examples will be valuable. Setting some challenges and expecting it is right in itself. It needs to be the right culture and the right support mechanism at the national level.”

The interviewee suggested to have a more structured approach by the government providing some challenges and examples for the firms to respond to the expectations. The above quote provides a counter-narrative in response to the dominant narrative of BIM.

At the government level the content of narrative of innovation has changed from construction to manufacturing. The emphasis is increasingly placed on logistics. The Director, External Affairs and Strategy at Institute of Civil Engineers has reflected on the dynamic nature of narratives set by the government:

“If you think about it in constructing narratives, perhaps 3-4 years ago, or even longer, industry was placing a lot of hope around organising around the carbon and sustainability as driver of change. To me digital almost replaced that. Because the challenge before the financial crisis was about carbon, it certainly was driven by government. The challenge now seems to be about productivity and the performance of the asset. And the challenge is driven by the government. Post-Brexit, post-financial crisis, you need to be more competitive. Narratives have been driven from above, politics, and it shifted, the digital piece has replaced the carbon and sustainability piece. It is not have gone away completely. It is still there. Digital seems to be functioning in a way that carbon used to be functioning 5-10 years ago, some of the industry people have organised themselves to drive industry change; or a justification to drive industry change. Learning legacy is a sort of master narrative. I think learning legacy kicks underneath carbon and digital. We know that if you a project-based sector you always going to have problems absorbing and observing knowledge from project to project. This is sort of well established. There are lots of papers on that. I think learning legacy is trying to address that means to an end really. The problem is collaboration is not there, the learning legacy gets created and damped because the structure of the industry does not really change or really get absorbed.”

The above quote demonstrates the shift in the content of narratives over the years as set by the government. It is evident that the role of narratives is recognised as being top-driven by the government and policy. The content of narratives of innovation has changed from carbon and sustainability agenda to digital, with some recent emphasis on learning legacy. Learning legacy aims to share the knowledge and lessons learned from construction projects within the

UK construction sector. For instance, all major projects in the UK construction sector has formalised documents on learning legacy, including research reports, case studies, example tools and templates.

The next analysis sections are structured around three domains of project organising (Winch, 2014) in a way of how permanent owners (projects are not their core business), project-based supplier firms and projects/megaprojects (temporary organisations) respond to the government narrative of innovation. This allows to capture the main organisational actors of the UK construction sector.

5.2 Firm level narrative of innovation: owners

Turning to the owner domain of project innovation narrative, there has been an increasing recognition of its role in stimulating innovation in supplier project-based firms and projects. It has been further emphasised that the government needs to be consistent in setting the industry targets; and that owners need to be clear about the objectives for projects:

“The more you want innovation in projects as a client, then the more you need to be open about it. There is a risk associated with it. Again, innovation is not necessarily what happens automatically, in my constant argument with the government is that if you want innovation let’s see some clarity of objectives, and consistency of what it is you want to achieve. If you set clear goals and clear standards which are going to require higher levels of performance, or higher levels of technical confidence than we have today, it is fine. Let’s be clear about timescale, what it is you would like to achieve. Because the government say in 5 years-time we want zero-carbon homes. Industry can and will deliver, it will innovate. What it needs to know is you are serious about it, and you are not going change these targets in few years’ time.” (Chairman of the National Express Group)

The above quote emphasises the importance of consistency and clarity of clients’ requirements for delivering projects. It further reinforces the need for the consistency from the government narrative of innovation in terms of the targets set. On the other hand, owner firms have to be dynamic and innovate in order to improve performance and satisfy demanding customers. This is clearly demonstrated by CEO from owner infrastructure road firm:

“I think what I have done with this business in 7 years I had to change it to get it performing. We had some significant problems. Government wanted us to deliver the work. We had a sense of urgency in a business, where normally we had one or two years to plan and then a

year or two to deliver. We had to do all of that in 15 minutes. And then we had a recession 2010 big cuts in funding. We had to really put back in expenditure. Really check everything that goes out. And then over the last 18 months I had to build it up. It is not the same as temporary organisation that you know what the project you are going to do. We do not necessarily know where the next project is going to be. But in 7 years I probably had big three phases. So, you change your senior team, you change people. You might change structure. Even in a steady-state business it is quite dynamic. Most businesses are. The world has changed very fast. We have quite demanding customers.”

The above quote demonstrates the interplay between stability and change in delivering the work for the government projects. It also reinforces the differences between permanent and temporary organisations.

Of particular note is the way the interviewee emphasised the role of innovation narratives embedded in the organisational identity (‘DNA’). The ways innovation is stimulated in owner organisations was further demonstrated by Innovation Manager from leading construction owner firm:

“We have two different campaigns, one campaign is we identify different challenges and people or employees can think about bright ideas, or great ideas, solutions to these challenges. There is a campaign where we stimulate people, we give awards to the winner, and more importantly, the government commits to those ideas further. We go to R&D stage. Around campaign there is communication through intranet, different challenges. Then we have another campaign, it is about the innovation that has been implemented. This is at construction level. What we do is incentivise, people have to submit their innovation activities, then there is a jury and we award all these initiatives that appear to be innovative or very good practice. It is a way to motivate people, share those initiatives. There is a platform, then people can share, people can see what other people are doing elsewhere. That is another way. We are transforming the company into more open and innovative way of thinking. Trying to create this that it is fine to fail. There is always this mantra of innovation: you need to try and you could fail. I think in the last year we had a huge change in terms of culture.”

5.3 Firm level narrative of innovation: Suppliers

Many interviewees their supplier firms’ innovative capabilities. One such example is provided

by Senior Manager from leading construction contractor firm:

“We look for a particular solution, but as a firm are we being as innovative as we can be in exposing all capability and experience of the firm to that particular solutions? We can look at innovation by either looking into the future of the client or in fact looking at ways that we can provide much greater breadth of the firm’s capability and be innovative at that particular solution.”

Many interviewees from supplier project-based firms question innovative capabilities of their firms. Another such example is provided by R&D Manager from construction contracting firm:

“We are really first few steps in a long journey. That does not mean we do not do innovation. We innovate all the time, but it is always reactive to a problem, rather than planned. So, we are not really strategic, with innovations we have been doing it is always we have a problem, we need to fix that problem, and the way to fix that problem maybe to innovate. What we are not doing is looking at where the industry is going to be in 5-year’s time, 10-years’ time, and how do we make sure our business stays sustainable by having things in place to respond to change in environment whether it is social environment, technological environment, political environment.”

The above quote demonstrates a lack of strategic narrative about innovation in a firm. The interviewee further reflected:

“In all honesty, while the senior people in our business will know that the government targets are, I am not sure how much thought in our business goes into what part do we play in meeting those industry targets. Part of the reason for that is some of the senior leaders in various businesses are so busy fighting fines, operational issues that actually do not take the time to step back to think about long-term vision, long-term goals. If there are long-term visions, long-term goals, they are very much about profit-levels, profit-margins rather than carbon necessarily and things like that.”

This quote reflects the lack of leadership and strategic vision about the innovation agenda of the firm in alignment with the government narrative of innovation. The urgency of the work, and workload are seen as some obstacles in having time to reflect and construct a narrative about innovation in the firm.

The supplier view is to emphasise their earlier involvement in the innovation process. The interviewees from the supplier firms emphasised the need for a support from the government,

and the role of clients. The Head of Innovation from a construction constructing firm has stressed the importance of leadership over rhetoric of innovation:

“You need a leadership that believes in innovation rather than just talk, the rhetoric. There is a lot of talk. If that talk is hidden behind general belief, then it becomes credible. We need an agenda. Innovation has to be in the agenda, part of the delivery of strategy, part of the values in a company. The innovation team is important and they need to be empowered. Maybe government needs to recognise. We need support from government. But also in a tendering process, there is £5 billion worth of infrastructure projects in the pipeline. A lot of megaprojects coming. We need to be talking about innovation before they even being talked about. How are we going to do tendering process in innovative way? How are we going to deliver these projects with innovation as part of DNA? When you talk about projects. Everyone is talking about health and safety. It is given. It is normal. But innovation should be talked about in the same reference as H&S. By creating a mechanism for capturing and delivering, capacity for delivering innovation, or allowing people to fail, or creating a safe space for innovation to happen that decouples it from projects. The client needs to stop accepting the lowest price. The lowest bid is not always the best bid. And it is a mind-set. How do we move away from that ‘cheapest is best’ mentality?”

One interviewee explicitly referred to the need to construct a more consistent language around innovation:

“What I would like to do is to sort of pull through in a more explicit way a strategy for innovation which people understand; there is a vocabulary and language around people when they talk about innovation. If you went to interview 10-15 people in our business and ask about innovation. You will get 10-15 different answers. So, what I have got to do with my leadership team is perhaps bring some consistency in what it means to our business in a more explicit way. Once we do it, we can then overlay that in our current strategy, so that it becomes more in a DNA of an organisation.” (Innovation Knowledge Manager, Construction and civil engineering contracting firm)

The interviewee hence not only recognises that different organisational members will have different interpretations of innovation, but also ascribes himself with the role of articulating a more consistent strategic narrative. The quote clearly illustrates that personalised stories can hinge around an individual’s role in the development of formalised narrative. As an aside, the metaphor about an organisation’s ‘DNA’ was mobilised by several interviewees with specific

reference to ensuring that innovation is accepted as normal business. This does raise the question of whether adherence to a more consistent script across the organisation risks stifling innovation rather than encouraging it. The paradox is that senior management is encouraging innovation, but only innovation which serves a broadly pre-defined agenda. The difficulty lies in making this agenda relevant to those working on specific projects.

The role of innovation champions is increasingly emphasised as important in bridging the gap between narratives of innovation led by the government and those by firms and projects. The senior manager from supplier firm has described them as:

“Innovation champions are free thinkers. They tend to be people who do not accept the norm. They are very challenging people which is great because you can have that dialogues and then you can have a confrontation, but true innovators are not confrontational because they do not need to be. They look at the challenge, they look at the ways things are done and they just ask questions. They tend to be very open to questions and ideas, challenges. Yes, that tends to be a mindset of people like that. That tends to be the way you see people that open to innovation.”

He further reflected on the organisational journey of overcoming resistance to change in the context of interfaces between firms and projects. Innovation seems rather more complex than the construction sector government narrative would have us believe. As interviewee argued, the process of innovation requires challenging the norm and challenging people’s mind-sets.

5.4 Project level: narrative of innovation in temporary organisations

Historically, project-based construction firms were criticised for not taking enough risks or viewing risks as threats rather than opportunities (Gann & Salter, 2000; Keegan & Truner, 2002). If the firm takes risks on a new type of technology, and it goes wrong, the consequences are large. There is always a chance that an innovation may fail. If an organisation has a culture that does not allow failure, then people become risk-averse:

“Innovation starts as a risk. Do we put it in a threat side or an opportunity side? A lot of other people will say it is a risk, it is a threat. Innovation is not free. It might be but the mindset is innovation is not free. I have got to do something differently, either emotionally or organisationally. That is why they flip it into a threat because most people will say it requires culture change. You change the culture 3 or 4 times throughout a project. People like me, we manage that. We merge cultures. At the end we merge project delivery culture with operation

culture. In [name of megaproject] every six weeks I told people this is where we are going; this is what we are doing; this is what you need to do. They trust you; they have confidence in you; they go in this journey with you. Their culture changing continually. That is part of leaders, CEOs.” (Projects Director, Infrastructure megaproject)

Temporary organisations (megaprojects) are often recognised as successful in promoting innovation narratives because there is an audience attached to it. They attract attention from both owners and suppliers and other internal and external stakeholders:

“I think we are very good at promoting innovation because by definition megaproject has an audience of people who will automatically to chime in, listen to whatever Crossrail has to say. It is far more difficult for other organisations to promote innovation when they might not necessary have an audience in the first place to get attention... Once we realise that we have a good story to tell we just needed a method of telling a story.” (Program Control Director, Infrastructure megaproject)

Narratives about successful innovation in megaprojects are articulated by managers in spoken, written and symbolic forms. The Alliance Innovation Manager from water infrastructure megaproject shared her view on the extent to which there is an alignment with the government targets and their approach to innovation:

“Yes, there is a strong alignment with the industry targets: faster delivery, reduced environmental impact reduce cost. Yes, there is an expectation and a duty. But it makes sense. As these megaprojects, you have best contractors building these projects. They should be doing it. They should be doing innovations that make it possible for the rest of the industry. It makes sense to align with those targets. The new innovation platform (i3P) is also seeks to align with Construction 2025 targets. There is a future. The Government transforming construction bid which is coming out in April and that is basically aligned with Construction 2025 as well. It makes sense for the major clients to be all trying for the same goals because it reflects to Government. It is relevant to the champions as well. There is the industry consistent message, and having simple, the value, innovation is a value for [Name of megaproject]. It is a simple message that champions can interpret and bring to their own teams.”

Of particular note is a way the interviewee talked about all major clients reflecting and aligning with the government targets. The role of innovation champions is emphasised in interpreting and bringing the narrative into their teams. I3P is an innovative new platform that

allows the collaboration to deliver infrastructure for the future. There are a number of events in i3P where innovation champions from owner, supplier and project organisations come together to share innovative solutions.

The need for innovation was often justified with reference to a continuously evolving external environment. An orientation towards continuous innovation was seen not only to be important for the interviewees' own organisations, but for the sector as a whole. The interviewees were equally clear that innovation needed to be driven at the strategic level:

“There is a growing recognition, certainly in the construction industry that we have to be more alive and more innovative. I am saying in my company that this is not about tolerating or accommodating innovation and change, this is about the fact that we have to encourage and make this happen. It is stronger than encouraging. It is insisting that we do this - insisting that you innovate or insisting that you question sometimes is too strong to say. But sometimes you have to take a big hammer. So, I think it is coming. At least a narrative is there, even if not behaviours are there. There are lots of conversations about innovation.” (CEO, infrastructure megaproject)

The above quote is especially stark in illustrating the advocated macro-level view of innovation. But at the same time, there is a sense of personal thinking and reflections ('I am saying', 'I think'), demonstrating an oscillation between macro- and micro-level views. It is further notable not only for the explicit self-awareness of the need for a 'narrative', but also for recognising that the required behaviours do not necessary follow (at least immediately). There was perhaps frequently a sense that the narrative in support of 'continuous innovation' was equally about securing the commitment of the employees to ongoing processes of change, although it was unclear how such processes pan out at the level of individual projects. A number of interviewees talked very specifically about their role in striving to convince those who are sceptical or dismissive of innovation. There were hence obvious connotations of performative intent, coupled with a variety of different means of achieving compliance, including: 'encouraging', 'convincing' and even 'insisting'. The narratives offered frequently included reference to associated activities such as 'setting the vision', 'developing strategies', 'introducing new language' and ensuring that 'innovation is embedded in the organisational culture'. On occasion, specific formal functional roles were alluded to which aligned with these various activities. However, there was little attempt to differentiate between the organisation level and that of individual projects.

Some of the narratives about innovation tended towards the self-promotional, but even these were frequently combined with no small degree of personal reflection. There was also a recurring focus on contributing to an industry-wide programme of innovation. The difficulties of overcoming vested interests in the implementation of change were a recurring theme. One respondent was especially critical of the extent to which younger entrants to the industry were given sufficient opportunities:

“I was keen to champion a movement which was recognising the inputs or contributions that people early in their careers can have on the industry. A discussion that I had with myself for twenty years has been: do you have to be old to lead big construction projects? Do you have to have a lot of experience? Why does it appear to be unusual in the construction industry to see younger people in senior positions? I think sometimes it is because the construction industry is quite a conservative, a traditional industry, and it is not one where change is necessary encouraged, or welcomed, or certainly promoted. I always thought that was wrong.” (CEO, infrastructure megaproject)

The above quote provides a good example of the interaction between narrative of viewing the construction industry as traditional and being slow to change, and counter-narrative that challenges the norm by advocating the leadership potential of younger people. The CEO alludes to the necessity for employees to gain experience on projects prior to progressing to organisational-level positions. There is a sense that the interviewee is promoting a self-image for the purpose of countering the way in which he is perceived by others. He is seemingly conscious of the need to promote younger managers into senior positions in the future. Yet, it is equally clear that he portrays himself as a lone voice in conflict with the dominant culture.

Discussion: The dynamics of narratives in construction innovation

In this paper we have demonstrated that the narrative of the need for innovation at the government level is characterised by consistency over time, as evident in a number of UK construction industry reports (see Table 1). The ways project-based firms respond to the government narrative is more dynamic and emergent. The innovation narratives constructed by owners, suppliers and projects demonstrate complexity in leading innovation, and also struggle through the ways senior managers construct counter-narratives. Figure 1 below shows a conceptual model of narrative interaction and their implications empirically derived from the data analysis.

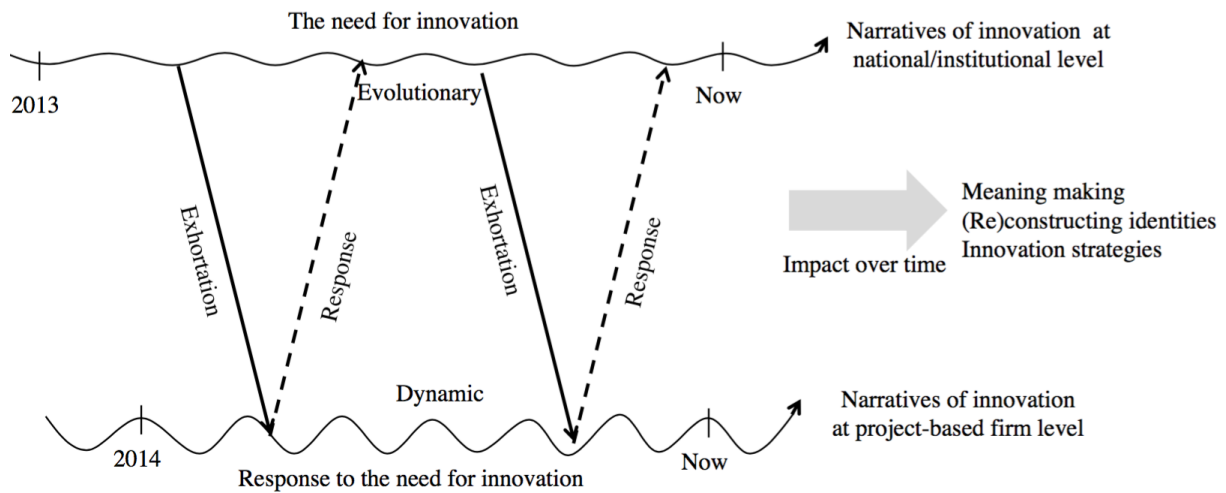


Figure 1. The interaction between narratives of innovation at government and firm levels

The model shows narrative interaction at government and firm levels and their impact on meaning making of innovation, (re)constructing individual and collective identities and forming innovation strategies.

We contribute to the emergent studies on narratives in context and interaction rather than as separate, complete and self-sufficient texts (Stapleton and Wilson, 2017; Rantakari and Vaara, 2017). Consistent with the work by Garud (2014a), as told and performed in interactional settings, narratives of innovation reflect both the social and cultural contexts from which they are derived, and local interactions including roles and relationships that participants manage during the innovation process.

We found that overall narratives of innovation driven by the government are towards repetition (Dailey and Browning, 2014), yet they are also characterised by temporality (Vaara et al., 2016), as there is an evidence of changes in the content of narratives of innovation over time. We confirm the findings of these authors about narrative repetition as duality: narrative repetition can overcome resistance to innovation in firms, but it can also result in lack of attention and boredom. Narratives of innovation constructed by organisational members demonstrate the ways they continuously make sense of government narrative of innovation and the specific ways they innovate and change in their firms. We found that the process of organising is about continuously process of narrative interactions.

Conclusions and contribution

This paper follows the ‘narrative turn’ in organisation studies and extends it to project management studies by focusing on narrative interactions and their implications. The nature and the role of narrative interactions is under-explored in the extant studies. We demonstrate

that it has important implications for policymaking, strategizing, identity constructions and meaning making. Narrative interactions merit further investigation.

This paper addresses the question of the Sub-theme 52 on how institutional settings shape how innovation occur in project-based settings. It addresses the gap in knowledge – how narratives interact at national and firm levels in UK infrastructure – currently an under-explored area of research. It contributes to the emergent ‘narrative and practice turn’ in the innovation and project management studies. We critique the government narratives of innovation as being too generic and ‘expected’; they tend to ignore the role of the owner in innovation and to think that it is a supply side issue. Owners ‘own’ the narratives of the project mission. Suppliers then turn that project narrative into an innovative project narrative. It is the innovative project narratives that are surprising and unexpected.

Impact of research on practice

This paper addresses the question of how institutional settings shape how innovation is enacted in project-based firms from the perspectives of senior managers. This interactive process plays an important role in meaning-making of innovation, and (re)constructing the identity of organisations and industry leaders. The greater alignment between the two levels of narratives that will strengthen the innovation positions of organisations in achieving targets set by the government and institutions. As a consequence, productivity of the industry will improve. The impact of the current research will result in greater alignment between the two levels of narratives that will strengthen the innovation positions of organisations in achieving these targets.

A positive impact of the research is to stimulate innovation in UK construction/infrastructure firms that currently struggle to innovate (i.e. those firms that provide no evidence of having innovation champions or agents who are actively involved in the innovation process; no evidence of innovation strategy being developed). This paper provides some insights into how to become skilful innovation managers in project organising contexts.

This research is based on engagement with permanent UK infrastructure, temporary organisations, supplier organisations, and other professional institutions to better understand their innovation narratives and how they respond to targets set at the national level. The wide spread of participants enables strategic narratives of innovation and their interactions over time to shape individual and collective identities to be addressed.

References

- Abolafia, M. Y. (2010). Narrative construction as sensemaking: How a central bank thinks. *Organization Studies*, 31(3), 349-367.
- Andrews, M. (2004). Opening to the original contributions: Counter-narratives and the power to oppose. In M. G. W. Bamberg and M. Andrews *Considering counter-narratives: Narrating, resisting, making sense*. Philadelphia: John Benjamins, pp. 1-6.
- Bakker, R. M., DeFillippi, R. J., Schwab, A. and Sydow, J. (2016). Temporary organizing: Promises, processes, problems. *Organization Studies*, 37(12), 1703-1719.
- Bartel, C. A. and Garud, R. (2009). The role of narratives in sustaining organizational innovation. *Organization Science*, 20(1), 107-117.
- Boddy, D. and Paton, R. (2003). Responding to competing narratives: Lessons for project management. *International Journal of Project Management*, 22(3), 225-233.
- Buchanan, D. and Dawson, P. (2007). Discourse and audience: organizational change as multi-story process. *Journal of Management Studies*, 44(5), 669-686.
- Chaidas, D. (2018). The benefits of narratology in the analysis of multimodal legitimation: The case of new democracy. *Discourse & Communication*, 12(3), 258-277.
- Chreim, S. (2005). The continuity-change duality in narrative texts of organizational identity. *Journal of Management Studies*, 42(3), 567-593.
- Clandinin, D. J. (2007). *Handbook of narrative inquiry: Mapping a methodology*. London: Sage Publications.
- Cunliffe, A. L., Luhman, J. T., and Boje, D. M. (2004). Narrative temporality: Implications for organizational research. *Organization Studies*, 25(2), 261-286.
- Czarniawska, B. (1997). *A narrative approach to organization studies*. London, Sage Publications.
- Czarniawska, B. (2016). Performativity of social sciences as seen by organization scholar. *European Management Journal*, 34(4), 315-318.
- Dailey, S. L. and Browning, L. (2014). Retelling stories in organizations: Understanding the functions of narrative repetition. *Academy of Management Review*, 39(1), 22-43.
- Davies, A. and Brady, T. (2016). Explicating the dynamics of project capabilities. *International Journal of Project Management*, 34(2), 314-327.

- Davies, R. and Harty, C. (2013). Implementing 'site BIM': A case study of ICT innovation on a large hospital project. *Automation in Construction*, 30, 15-24.
- Denning, S. (2005). Transformational innovation: A journey by narrative. *Strategy & Leadership*, 33(3), 11-16.
- Doganova, L. and Eyquem-Renault, M. (2009). What do business models do? Innovation devices in technology entrepreneurship. *Research Policy*, 38(10), 1559-1570.
- Dvora, Y. (1996). How does a policy mean? Interpreting policy and organizational actions. Washington, DC: Georgetown University Press.
- Enninga, T. and van der Lugt, R. (2016). The innovation journey and the skipper of the raft: about the role of narratives in innovation project leadership. *Project Management Journal*, 47(2), 103-114.
- Fenton, C. and Langley, A. (2011). Strategy as practice and the narrative turn. *Organization Studies*, 32(9), 1171-1196.
- Frandsen, S., Kuhn, T. and Lundholt, W. 2017. *Counter-narratives and organization*. Routledge: New York and London.
- Gann, D. M. and Salter, A. (2000). Innovation in project-based, service-enhanced firms: The construction of complex products and systems. *Research Policy*, 29(7-8), 955-972.
- Garud, R., Dunbar, R. L. M. and Bartel, C. A. (2011). Dealing with unusual experiences: A narrative perspective on organizational learning. *Organization Science*, 22(3), 587-601.
- Garud, R., Gehman, J. and Giuliani, A. P. (2014a). Contextualizing entrepreneurial innovation: A narrative perspective. *Research Policy*, 43(7), 1177-1188.
- Garud, R., Schildt, H. A. and Lant, T.K. (2014b). Entrepreneurial storytelling, future expectations, and the paradox of legitimacy. *Organization Science*, 25(5), 1479-1492.
- Havermans, L. A., Keegan, A. and Den Hartog, D. N. (2015). Choosing your words carefully: Leaders' narratives of complex emergent problem resolution, *International Journal of Project Management*, 33(5), 973-984.
- HM Government (2013). *Industrial Strategy: Construction 2025*. London: HM Government.
- Hobday, M. (2000). The project-based organisation: An ideal form for managing complex products and systems? *Research Policy*, 29(7-8), 871-893.

- Ibarra, H., & Barbulescu, R. (2010). Identity as narrative: prevalence, effectiveness, and consequences of narrative identity work in macro work role transition. *Academy of Management Review*, 35(1), 135-154.
- Institution of Civil Engineers (2015). *Innovation: Stepping up the Industry*. London: Institution of Civil Engineers.
- Institution of Civil Engineers (2017). *From transaction to enterprises: A new approach to delivering high performing infrastructure*. London, UK: Institution of Civil Engineers.
- Järventie-Thesleff, R. and Tienari, J. (2016). Roles as mediators in identity work. *Organization Studies*, 37(2), 237-265.
- Löwstedt, M. and Räisänen, C. (2012). 'Playing back-spin balls': Narrating organizational change in construction. *Construction Management and Economics*, 30(9), 795-806.
- Keegan, A. and Truner, J. R. (2002). The management of innovation in project-based firms. *Long Range Planning*, 35(4), 367-388.
- Mishler, E. G. (1991). *Research interviewing: Context and narrative*. Harvard, USA: Harvard University Press.
- McKinsey Global Institute (2017). *Reinventing construction: A route to higher productivity*. McKinsey Global Institute.
- Orstavik, F., Dainty, A. and Abbott, C. (2015). *Construction innovation*. Chichester, UK: John Wiley & Sons.
- Rantakari, A. and Vaara, E. (2017). Narratives and processuality. In A. Langley and H. Tsoukas, *The Sage Handbook of Process Organisation Studies*. London: Sage Publications, pp. 271-285.
- Rhodes, C. and Brown, A.D. (2005). Narrative, organizations and research. *International Journal of Management Reviews*, 7(3), 167-188.
- Sims, D. (2003). Between the millstones: A narrative account of the vulnerability of middle managers' storying. *Human Relations*, 56(10), 1195-1211.
- Stapleton, K. and Wilson, J. (2017). Telling the story: Meaning making in a community narrative. *Journal of Pragmatics*, 108, 60-80.
- The Chartered Institute of Building (2007). *Innovation in construction: Ideas are the currency of the future*. Ascot, UK: The Chartered Institute of Building.

- Tukiainen, S. and Granqvist, N. (2016). Temporary organizing and institutional change. *Organization Studies*, 27(12), 1819-1840.
- Vaara, E., Sonenshein, S. and Boje, D. (2016). Sources of stability and change in organizations: Approaches and directions for future research. *The Academy of Management Annals*, 10(1), 495-560.
- Winch, G. M. (2014). Three domains of project organising. *International Journal of Project Management*, 32(5), 721-731.
- Winch, G. M. (2017) The Morphogenesis of Socio(-)material Relations in Organizations *Thirty-eighth International Conference on Information Systems*, Seoul.
- Winch, G. and Leiringer, R. (2016). Owner project capabilities for infrastructure development: A review and development of ‘strong owner’ concept. *International Journal of Project Management*, 35(2), 721-731.
- Wolstenholme, A. (2009). *Never waist a good crisis. A review of progress since Rethinking Construction and thoughts for our future*. London, UK: Constructing Excellence.