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INNOVATION IN SUSTAINABILITY COMMUNICATION

A PROPOSAL TOWARDS A HOLISTIC COMMUNICATION FRAMEWORK

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Dissertation

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Abstract

This work has two main objectives. The first objective of this study is to map out the best practices used to implement projects that communicate sustainability values and activities in a selected number of MNCs considered 'sustainable' by the Corporate Knights Global 100 Index, according to the following dimensions: target audience, content, process and efficacy measurement; The second objective of the study is to propose a holistic framework design to standardize the process of communicating sustainability activities and values, test the proposed framework, and iterate if needed.

This study is developed through a mixed methodology and is divided into two phases. Phase A comprises two steps (data collection and interviews) to propose a framework. Phase B covers the stage of iteration and correction of the proposed framework (through new interviews).

The study successfully reaches its goal of developing a sustainability communication framework (SCF) to be used by companies that aim to structure their communication process. The research questions that aim to study and structure the processes used by the Global 100 Index to communicate sustainability actions and values to their various stakeholders – by defining their main objectives, target audiences, channels, and contents, and how they measure their overall communication efficacy – are successfully answered and allow for the development of the SCF to be anchored in experiences of MNCs and sustained by existing literature.

Keywords: sustainability, communication, framework, multinational companies, CSR

Resumo

Este trabalho tem dois objetivos principais. O primeiro objetivo deste estudo é mapear as melhores práticas utilizadas para comunicar valores e atividades de sustentabilidade em um número selecionado de EMNs consideradas 'sustentáveis' conforme o Corporate Knights Global 100 Index, de acordo com as seguintes dimensões: objetivos, público-alvo, canais, conteúdos e eficácia da comunicação; O segundo objetivo do estudo é propor uma framework de estrutura holística para padronizar o processo de comunicação de atividades e valores de sustentabilidade, testar a estrutura proposta e iterar, se necessário.

Este estudo é desenvolvido por meio de uma metodologia mista e está dividido em duas fases. A fase A, compreende duas etapas (coleta de dados e entrevistas) para propor uma framework. A fase B abrange a etapa de iteração e correção da framework proposta (por meio de novas entrevistas).

O estudo atinge com sucesso seu objetivo de desenvolver uma framework de comunicação de sustentabilidade (FCS) para ser utilizada por empresas que visam estruturar seu processo de comunicação. As questões de pesquisa que visam estudar e estruturar os processos usados pelo Índice Global 100 para comunicar ações e valores de sustentabilidade aos seus diversos stakeholders - definindo seus principais objetivos, públicos-alvo, canais e conteúdos, e como medem sua eficácia geral de comunicação - são respondidas com sucesso e permitem que o desenvolvimento da FCS seja ancorado nas experiências das EMNs e sustentado pela literatura existente.

Palavras-chave: sustentabilidade, comunicação, framework, empresas multinacionais, RSC

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Acronyms

CSR	Corporate Social Responsibility
CSRP	Corporate Social Responsibility Performance
CSV	Create Shared Value
CDP	Community Development Program Global Environmental Impact
DJSI	Dow Jones Sustainable Index
GRI	Global Reporting Initiative
G100	Corporate Knights Global 100 Index
IMC	Integrated Marketing Communications
MNC	Multinational Company
NGO	Non-Governmental Organization
OSEP	Orientation, Structure, Ergonomics, Content
OSP	Organizational Strategic Performance
SCF	Sustainability Communication Framework
SDG	Sustainable Development Goal
SMC	Sustainability Marketing Communications
SME	Small and Medium Enterprise
TBL	Triple Bottom Line
TCFD	Task Force on Climate-related Financial Disclosures
UN	The United Nations

1. Introduction

1.1 Motivation

The history of sustainability can be traced back to the 1970s and 1980s, when debates surrounding the topic began to emerge as research showed that human action had an impact on the environment. Since then, a lot of time has passed, and the topic has developed and crystallized so much that sustainability reporting has now become a mandatory request for European Union companies (European Comission, n.d.). Nonetheless, although sustainability has been around as a topic for almost 50 years, the logic behind the processes used to manage and market a company rooted in sustainable practices is still somewhat ambiguous and continues to be studied.

Communication is an important instrument for building and consolidating a brand's image (Navarro-Bailón, 2012). In a world with a growing demand for companies that are based on environmental preservation, human development, economical abundance, and sustainability at large, it is important that companies know how to act and speak about their responsible efforts made for the construction of a better world (Colucci et al., 2020; Yekini et al., 2019).

There is a plethora of frameworks aiming to guide companies in the development of sustainability strategies. Such frameworks demand a great deal of transparency regarding their targets and their impact overall. Moreover, most of them seek to aid the development of sustainability documents and reports, not communication in general. As far as we were able to ascertain, no study has yet looked over sustainability communication as a specific field to be studied and organized to help businesses that strive towards a sustainable path to learn how to clearly talk about what it is that they do, how they do it, and what their goals aim to reach in order to contribute to the construction of this new reality.

Therefore, this study aims to dive into the topic of sustainability communication, specifically in companies already considered 'highly sustainable' – according to the Global 100 Corporate Knights Index. This way, by looking at their efforts revolving around this topic it becomes possible to extract valuable insights for other companies to communicate their sustainable endeavor, both to the confines within their companies as well as to the outer world.

1.2 Background

The theme of this work is regarding the communication of sustainability in companies considered 'highly sustainable' according to the Corporate Knights Global 100 Index. This index is recognized as the leader in corporate sustainable development ranking (Lin et al., 2019). Corporate Knights a Canadian media company, targets corporations with a global market capitalization of US$2 billion or more, and measures them according to 24 key indicators. Among others, some of the more relevant indicators are: the percentage of clean revenue, the percentage of clean investment, carbon productivity, percentage of taxes paid, percentage of board gender and racial diversity. These indicators aim to evaluate the world's top 100 leading companies for sustainable development at a global scale (*http://www.corporateknights.com/magazineslanding-page/* at 02.02.21). The importance of the Global 100 Index can be seen on how it can strengthen the sustainability value of a company's environmental performance, social performance, and economic performance (Lin et al., 2019).

Another important concept for the purpose of this work is Corporate Social Responsibility (CSR). CSR is a recognizable concept that encompasses actions and communications developed by companies that integrate social, environmental, economic, stakeholder, and voluntariness concerns (Dahlsrud, 2008). Nonetheless, there is a challenge for companies to understand how CSR is socially constructed in a specific context and how to take this into account when business strategies are developed (*ibid.*). One of the strategies to be considered within the business operation is the communication strategy overall.

Finally, effective communication is necessary to accomplish CSR (Hao et al., 2018) and, currently, multinational corporations (MNCs) worldwide face communication problems among their stakeholders, which can result in low efficiency, employee turnover, and demotivation (*ibid.*).

1.3. Objectives

This research aims to study how MNCs considered references in the realm of sustainability, articulate communication strategies both internally and for different external stakeholder groups. Moreover, this study aims to understand what their main target audiences are, along with better understanding what type of content is produced, and how the communication's efficacy is measured overall. This research also aims to propose a sustainability communication framework (SCF) tool based on the identified best practices in the market. Hence, this study has two main objectives:

- The first objective of this study is to map out the best practices used to implement projects that communicate sustainability values and activities in a selected number of MNCs considered 'sustainable' by the Corporate Knights Global 100 Index, according to the following dimensions: objectives, target audiences, channels, content, process and efficacy measurements;

- The second objective of the study is to propose a holistic framework design to standardize the process of communicating sustainability activities and values, test the proposed framework, and iterate if needed;

This research can be used by companies that want to communicate more effectively and efficiently their sustainability actions and values. Other beneficiaries within the academic or education industries may take advantage of the sustainability communication component of this work. These may include communication, business, and marketing schools focused on teaching sustainability processes and strategies.

1.4 Research Questions

The present dissertation has two main questions that aim to be answered following the development of the study. Both questions aim to better understand sustainability as adding strategic value to MNCs and also regarding its impact on the communication processes in line with these values.

Research has shown that sustainability and CSR are of great importance for the competitiveness and innovation of companies (Reilly & Hynan, 2014). Strategic communication designs must be systematic and planned. This must take into consideration the objective of shifting target audiences attitudes and practices regarding sustainability (White et al., 2019).

The process of communication strategy can be divided into three main steps: 1)communication research (to identify the problem), 2) communication design and implementation (to solve the problem), and 3) monitoring and evaluating to assess the solution (Mefalopulos & Grenna, 2004). A strategic approach to communication planning has to consider the relation between the segmentation of the target audience, the selection of transmission channels, and the objectives of the communication (Bucur & Petra, 2011).

In this context, research aiming to comprehend how different companies perceived as sustainable is needed to establish similarities among sustainability communication processes. Consequently, the first research question of this dissertation is:

R.Q.1 What are the processes, objectives, target audiences, channels and contents used by the Global 100 Index to communicate sustainability actions and values to their various stakeholders?

Talking about CSR activities is a fundamental part of a business's CSR strategy (Carroll, 1999; Salzmann et al., 2005; Wood, 1991). When developing their communication strategies, and choosing tools, important stakeholders mentioned by companies are: the industry; the financial sector; accounting professionals; civil society, NGOs working in the field of human rights; and environment and other stakeholders (Jianu et al., 2016a).

For sustainable solutions to be widely adopted and implemented in different social areas, the actions too must be synchronized. Since the purpose of any company is to create and distribute increased wealth and value to all its stakeholders, without favoring one group (e.g. shareholders) at the expense of others (e.g. society and collaborators),(Clarkson, 1995).

In many cases, the choices made for CSR communication (e.g., through reports) favor some groups (e.g., investors and evaluation companies) and disregard others (e.g., society, customers, and collaborators) (Ayman et al., 2020; Lodhia, 2018). In this context, research aiming to develop a structured, organized, and systematic sustainability communication process – which encompasses all sustainable objectives as well as stakeholders focuses – based on already successful practices, is needed. Consequently, the second research question of this dissertation is:

R.Q.2 Is it possible to develop a framework that structures the sustainability communication process based on MNCs perceived as 'highly sustainable' by the Global 100 Index?

1.5 Research Design

The methodology consists of a mixed methodology in which one part complements the other. In addition to providing more valid inferences overall, mixed methodology was selected because it can better answer specific, complex, research questions when compared to conducting qualitative or quantitative research in isolation. Even when suggesting opposing results, this approach may lead to a new hypothesis, reflection, and further research (Lund, 2012).

Therefore, this study will be organized in three phases, incorporated into two parts. The first part consists of data gathering and the framework proposal phases. The second part focuses on the iterations and updates to the proposed framework. The first phase of the research includes data collection in digital media[1]. The second consists of semi-structured interviews with 12 companies[2] that aim to answer the research questions. Finally, the third and final phase (encompassed by the second part) are the iterations – done through two new interviews[3], with different Portuguese companies – and modifications to the model.

1.6. Structure of this dissertation

This dissertation is organized into 11 chapters. The first three chapters are more theoretical in nature, aiming to give a theoretical overview of the topics of sustainability and communication, rooted in previous existing literature. From the fourth until the eighth chapter this study goes over the empirical research developed within website and social media analysis, the interviews with companies, development of the framework and validation of the framework itself. The last three chapters discuss the findings and conclude the study.

After this first introductory chapter, the second chapter does an extensive but non-exhaustive literature review over the topic of sustainability communication: social media and online sustainability communication, reporting and CSR, existing frameworks and internal communication. The third chapter touches on the key background concepts that are fundamental for the understanding of the topics of communication and sustainability such as Sustainable Development Goals (SDGs), CSR, target audiences, tools, channels, contents and efficacy measurements.

Starting the empirical portion of the study, the fourth chapter discloses the methodology used for this dissertation as well as the first iterations completed in order to refine the instrument of interview to be used with the companies. The fifth chapter discusses the online research made regarding the websites and social media of the companies analyzed. The sixth chapter discloses the

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[1] Data was collected from 100 websites of the 2021 Global 100 Index companies listed by Corporate Knights and its respective social media profiles. For the sake of this work, LinkedIn, Facebook, Instagram, Twitter and YouTube were scanned for each one of the 100 companies.

[2] These 12 companies are the ones from the 2021 Global 100 Index that answered our request to be interviewed in time for the development of this research.

[3] These 2 Portuguese companies were selected because of their importance to the Portuguese economic scenario and because of their noticeable efforts towards more sustainable practices.

interviews made with the selected companies and the overall findings. The seventh chapter highlights the framework development with an accompanied explanation, and the eighth chapter is where the validation of the framework is discussed in depth.

Finally, the ninth chapter discusses the findings and the previous existent literature, the tenth chapter discusses limitations of this study as well as suggests further research to be performed, and the eleventh chapter brings forward the final conclusions reached within this study.

2. Literature Review

2.1 Introduction to the processes used

As defined by Frink (2015), the literature review is a systematic, explicit and reproducible method for identifying, evaluating, and synthesizing a series of works produced by researchers. According to the author, the literature review bases its conclusions on other researchers' original work. Hart (1999) explains that the literature review must be comprehensive, profound, rigorous and consistent, clear and brief, and effectively synthesized and analyzed. It is through the use of ideas present in the literature that one can justify the chosen approach on a topic.

With these concepts in mind, the present concept of a literature review was developed as proposed in the Prisma flow diagram[4]. To perform the search for references to be used in the literature review, keywords related to sustainability communication, tools, and methods used to execute this communication were used. The research applied the following terms: 'sustainability communication', 'sustainable communication,' 'framework,' 'tool,' 'media' and 'methodology' in the Scopus[5], Google Scholar, and ResearchGate databases.

Considering the area of expertise of this researcher, and the field of study of this course, only studies related to the environment, social sciences, and business, were selected. As initial focus of the literature review was to better understand whether currently there are integrated sustainability communication tools, the research was restricted to studies of years no earlier than 2016. The 137 results obtained from the Scopus database were scrutinized from the title and the abstract to separate the papers that had any relevance to the present study's composition in terms of the concepts covered, the methodology used, similarities, and possible complements to this research.

Of these first 137 results, 39 relevant articles were selected to some extent for the development of this dissertation. The eligibility criteria of the papers were that they 1) had to have mixed methodologies or qualitative methodologies, or 2) addressed the topics of CSR, or communication on social networks or strategic tools and frameworks. In addition to these selected papers, other

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4 For more information see: *Microsoft Word - PRISMA 2009 flow diagram.doc (prisma-statement.org)*

5 The research performed on Scopus was: (KEY (sustainability AND communication OR sustainable AND communication) AND KEY (framework OR tool OR media OR methodology)) AND PUBYEAR > 2015 AND (LIMIT-TO (SUBJAREA , "ENVI") OR LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "BUSI")) and generated 137 results (last research on January 20th, 2021)

articles were found in searches made on Google Scholar and ResearchGate. It is worth mentioning that, from reading the selected articles, other articles cited by the referenced researchers were later considered for complementing the literature review and the background concepts. It is possible to check a synthesis of the literature review in Table 11 in the Appendix I.

The literature review developed for the present study showed a prevalence of studies with quantitative methodology related to social networks (e.g., Karyotakis & Antonopoulos, 2021; A. A. Kim et al., 2018; Pilǎr et al., 2019) and the dissemination of sustainability information through companies. Another common feature was the prevalence of studies in small and medium-sized companies or universities (e.g., Ajibade & Mutula, 2020; Kang & Park, 2018; Ližbetinová et al., 2019; Rahman et al., 2020; Thrassou & Vrontis, 2006), and a frequency in studying social media through the lenses of the users (e.g., Dodds et al., 2020; Korenkova et al., 2020; Pilǎr et al., 2019).

Furthermore, the literature review revealed how:

- Sustainability reporting as process has evolved into sustainability communication, and as a consequence, requires changes in research approaches to study current practices (Lodhia, 2018);

- External communication about CSR and sustainability activities may vary significantly across firms (Reilly & Larya, 2018). CSR reporting is a common communication tool whereby stakeholders can be informed about the performance of the companies in various aspects of CSR; nonetheless, the quality of the information can be poor in many cases (Tsalis et al., 2018);

- Sustainability communication does not yet have its own theoretical framework, as it is a multi and cross-disciplinary concept (Janoušková et al., 2019), and with this, future studies can profit from this opportunity and take a closer look at aspects of sustainable companies and green practices (Karyotakis & Antonopoulos, 2021).

2.2 Social media and online sustainability communication studies

The initial research made in Scopus showed a prevalence of studies regarding online sustainability communication, especially with a social media analysis approach. According to Korenkova[6] (et al.,

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6 Quantitative analysis used to assess the opinions of 244 Slovakian consumers about advertising on different platforms.

2020), for businesses to be competitive in the market, it is imperative that they select a mixture of marketing communication activities to advertise their products and/or services aiming to attract the broadest viable range of potential consumers. There is an increasing need for organizations to listen to their stakeholders, not only by face-to-face interactions, but also through the use of digital communication (Ayman et al., 2020).

Korenkova et al., (2020) argued that on one hand the use of online advertising has a more significant influence than most other types of advertising, but, on the other hand, it is not considered as reliable. This evidences a further discussion regarding the use of social media. Despite being a two-way communication tool and allowing interaction and proximity (e.g., Gori et al., 2020; Pilăr et al., 2019), social media may not be the best medium to communicate regarding topics around sustainability, due to lack of reliability (Jaques et al., 2019; Korenkova et al., 2020).

On the contrary, social networks allow companies to contact specific interest groups with whom it is deemed interesting to communicate with from a business point-of-view. Therefore, according to Stanislavská[7] et. al. (2020), social networks can be places of solidification of companies' CSR.

When connected with smart digital solutions and communication platforms, social media often engage in cross-organizational meaningful communication and brainstorming and can generate a variety of unorthodox solutions and business alternatives (Obrenovic et al., 2020). Moreover, additionally to an environmental and social sustainability perspective, the fair use of social networks can contribute to the financial sustainability of companies[8] (Rahman et al., 2020).

Although not all companies may have the specific capabilities to work with social media, it is considered a competency that can be taught and broadly adopted (Rad et al., 2020). Moreover, when considering not only capabilities, but also communication objectives, blogs and social media show themselves as effective tools on the stimulation of behavior change (A. A. Kim et al., 2018). Research shows that concepts associated with pro-social and pro-environmental attitudes bring an association of positive emotions (Ben Amara & Chen, 2020). This association corroborates with White et al. (2019), who argued that although harmful speech impacts, positive emotions generate behavior changes, which is a frequent objective aimed by sustainability communication messages.

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7 The study analyzed 113,628 Instagram posts of 38,590 unique users worldwide, and 24,339 (21.42%) hashtags contained geolocations.

8 The research performed had a sample of 362 questionnaires answered by owners/managers of SMEs in Pakistan.

2.3 Reporting and CSR communication

Another facet found during the literature review research were the studies regarding reporting and communicating CSR in general. Dodds et. al. (2020) demonstrated that, although there is no effective, consistent, and sufficient engagement in sustainability communication, companies[9] with the best sustainable practices were also most likely to have sustainability as the foundation of their business philosophy, mission, and overarching company vision.

Colucci et. al. (2020) measured actions developed by companies from the perspectives of communication (CSRtalk) and practical actions (CSRwalk)[10], and demonstrated the existence of discrepancies between the communication of sustainability and the sustainability actions developed by companies themselves. De Filippo et. al., (2020) confirms that there might be a discrepancy between what is communicated and what is done on the level of sustainability.

CSR play essential role in mediating strategic performance and corporate social performance (Masud et al., 2019). Furthermore, current communications are being created to show the awareness firms have on their played role within the sustainability ecosystem (Di Nauta et al., 2020). Research has shown inconsistencies between organizational ideologies, such as when considering environmental policies and action, one being media selection (Rademaker & Royne, 2018). Sustainable communication practices may vary significantly across firms (Reilly & Larya, 2018), and the quality of the information shared can be poor in many cases (Tsalis et al., 2018).

Cultural settings may persist as a challenge on the development of communication strategies (Kong et al., 2020), as well as the perception of the consumer of the media channel regarding the communication (Wróblewski et al., 2018). If on one hand brand attitude and corporate trust appear to have larger impacts on customers intentions (Kang & Park, 2018), on the other hand perceived media credibility by the customers enhances relations between media exposure and sustainable behavior intentions (J. Lee & Cho, 2020).

The pluralistic nature of the meaning of assessing sustainability is reflected in the literature, with different possible interpretations and meanings and critical issues related to the outcome of

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9 The final sample included 303 festivals, from which 56 answered to a qualitative interview.

10 The final sample includes 219 companies, 107 small companies and 112 large companies, covering all the five segments of the fashion market.

sustainability assessment (Perchinunno & Cazzolle, 2020)[11]. Studies show it is essential to use existing metrics to evaluate current topics. Moreover, changes in sustainability communication demand transformations in research approaches (Lodhia, 2018).

Although some works have been developed on these topics, many have stayed within the theoretical scope (Hao et al., 2018; Y. C. Lee, 2017), and many others limited their research to quantitatively understand the sustainable communication phenomenon (Karyotakis & Antonopoulos, 2021; A. A. Kim et al., 2018; Pilăr et al., 2019).

2.4 Existing frameworks and internal communication studies

The literature review allowed the discovery of previous frameworks developed to study topics regarding sustainability and research that approached the internal communication practices. One of the previous frameworks proposed, is that of Lee (2017), whom proposes a tool to evaluate customer centric sustainability marketing communications that integrates sustainability issues, stimulation of sustainable mindsets and encouragement of sustainable consumption. Kostova and Kokarev (2019) additionally developed an ICT framework to achieve SDGs.

Companies cannot be isolated to achieve SDGs (Ben Amara & Chen, 2020). For practical, sustainable development, and to reach the desired SDGs, companies need to acquire the skills to work within networks of professionals and other organizations. Some components such as coordination skills, knowledge about partners, and internal communication are essential for developing sustainable goals and results (Pfeffermann et al., 2013; Šķiltere & Bormane, 2018; Varadarajan, 2010).

Research endorses that the existence of an organized model of communication dissemination can favor the processes within the company, and the alignment of the message communicated to society, and stakeholders (Hellman et al., 2019). Likewise, from an internal point of view, Bauer and Lim (2019) recognized[12] that internal communication and publications on external social networks were claimed as being important factors for identifying employees and retaining them.

2.5 Conclusions and Research Gap

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11 Perchinunno & Cazzolle (2020) performed a cluster analysis that sought to understand sustainability in the context of universities.

12 Bauer's research was conducted only within the context of one non-governmental organization.

Social and corporate responsibility play essential roles in mediating its strategic performance and corporate social performance (Masud et al., 2019). Sustainability communication studies demand changes in research approaches (Lodhia, 2018). Sustainable communication practices may vary significantly across companies (Reilly & Larya, 2018), and the quality of the information shared can be poor in many cases (Tsalis et al., 2018). Sustainability communication still does not have its own theoretical framework developed (Janoušková et al., 2019).

Considering the above-mentioned arguments, this study proposes to fill the existing gap of understanding sustainability communication practices within and across companies, to develop a framework designed to help companies outline their strategies to communicate their sustainability activities and values.

3. Key Background Concepts

3.1. The concept of sustainability

The concept of sustainability was first introduced to the public as part of the Brundtland Report by the United Nations World Commission on Environment and Development in 1987 (United Nations, 1987). According to the definition of the word, sustainability is "development that meets the economic, social, and environmental needs of the present without compromising the ability of future generations to meet their own needs" (Visser & Brundtland, 2013, p.14).

Since the introduction of the concept, communicating sustainability values and sustainable actions through reports, official documents, social media, and public relations appearances has become increasingly important to small, medium, and large enterprises (Stanislavská et al., 2020). The importance of sustainability communication can be seen by the fact that more than 1,200 companies, from 31 different countries, produced more than 7,000 stand-alone sustainability reports[13]. Furthermore, this data indicates a multiplication factor of over 10 when considering sustainability reports produced between 1994 and 2007 (Martins, 2018).

In recent decades, sustainability has become a significant worldwide issue, embracing several other aspects than the already well-known 'environmental sustainability' (Kumar, 2013; Singh et al., 2012). As the environment around us influences our habits and lifestyles, it was only natural that the concept of sustainability evolved to encompass the necessity to build resistant infrastructures, promote sustainable industrialization, and encourage innovation that supports all aspects of economic development, citizens' well-being, technological development, and research. (Perchinunno & Cazzolle, 2020).

3.1.1 United Nations' Sustainable Development Goals for 2030

At the UN Sustainable Development Summit in September 2015, the world leaders adopted a new 2030 Agenda for Sustainable Development – a plan of action for people, the planet, and it's prosperity – designed to move the world towards a more sustainable and resilient course. This agenda contains 169 associated targets and 232 indicators (the total number of indicators is 244,

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13 Numbers refer to data gathered between 1994 and 2007

but 9 repeat under two or three different targets). There are three main facets (Figure 1): the economic pillar (1,2,3,8,9), the environmental pillar (6,7,12,13,14,15) and the social pillar (4,5,10,11,16,17) (Kostoska & Kocarev, 2019).

Figure 1 - SDGs into three pillars. Source: (Kostoska & Kocarev, 2019)

The goals and targets are not isolated since they comprise a conception that is holistically understood in a combined manner. These goals serve as an imperative condition for identifying practical solutions that may be compared to a capstone's function that concludes a cellar (Janoušková et al., 2019). The whole structure has not much meaning and cohesion without the final stretcher, even though individual stones may be beautiful in themselves.

3.1.2 The 3 Ps and CSR

Among the different concepts and dimensions, the triple bottom line (TBL) concept encompasses economic, social, and environmental responsibility dimensions. Although there are other concepts that aim to define sustainability – such as creating shared value, CSV, (Wójcik, 2016) – the TBL is the most prominent and recognized CSR or sustainability concept (Masud et al., 2019). TBL is also called 3P, and it stands for profit, planet, and people.

In Europe, the concept of CSR mostly stems from the TBL theory, which is based on the idea that any enterprise bears economic, social, and environmental responsibility for its activities (Stanislavská et al., 2020). The concept of CSR refers to the contribution of an organization to broader societal goals through ethical practices, and it is now a global phenomenon.

CSR encompasses all unpaid actions that might aid a company, groups of stakeholders, and society (Colucci et al., 2020). CSR primarily consists of communication with groups of stakeholders. In the early-1980s, a wave of MNCs began to champion the importance of CSR (Hilson, 2012). Despite the growing interest around CSR in all MNCs, extractive industries[14] were significantly responsible for propagating CSR, since the late 1900s and still now (*ibid.*).

Businesses increasingly face requests from their interest groups regarding information on CSR activities. Recently, most developing and developed countries acknowledge the value of CSR in guaranteeing commercial success, and its outstanding capability to promote global social problems (Stanislavská et al., 2020). Research has also shown that CSR brings many advantages for companies. It acts both by positively impacting firms' return on equity and assets, and by reducing the risk of firm-level corruption (*ibid.*).

Scholarly literature on management brings in attention to how businesses take part in CSR "talk" and "walk" (Colucci et al., 2020; Wickert et al., 2016). CSR talk encompasses the external communication tools instrumentally utilized by a corporation to update stakeholders about environmental and social initiatives, such as CSR reports, corporate websites, advertising, and product branding (Colucci et al., 2020). CSR 'walk' stands for the initiatives inside one company, such as altering production methods to decrease environmental impacts or modifying work relations both within the company and throughout its value chain.

Attempts to identify CSR engagement drivers were fragmented since existing research has adopted distinct methodologies with little similarities (e.g., Arvidsson, 2010; Ihlen et al., 2011; Reilly & Larya, 2018). On one hand, the institutional viewpoint stresses CSR as a consequence to institutional pressures or efforts to create collective validity (e.g., Arvidsson, 2010; Hilson, 2012; Rahman et al., 2020). On the other hand, the economic perception considers CSR a tool to enhance financial gains for the corporation (e.g., Lin et al., 2019; Rahman et al., 2020; Salzmann et al., 2005).

CSR researches highlight that only communication without execution, or simply execution without communication, corresponds to the two key dimensions of CSR engagement (Baumann-Pauly et al., 2013; Colucci et al., 2020; Wickert et al., 2016). Moreover, communicating CSR actions is a crucial part of the CSR strategy of a company (Stanislavská et al., 2020).

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[14] Industries whose main activity consists of removing metals, minerals, and aggregates from the earth.

3.1.3 Sustainability existing frameworks

To externalize and validate CSR efforts, companies adopt certifications such as ISO 14001, ISO 26000, and B Corp certification. B Corp certification is earned by companies that meet the highest standards of verified social and environmental performance, public transparency, and legal accountability to balance profit and purpose (Stubbs, 2019). It is used mostly by SMEs to have their efforts towards sustainability acknowledged. (Wilburn & Wilburn, 2015)

ISO 26000 acts as a guide for social responsibility for organizations wanting to implement CSR (Leipziger, 2015). ISO 14001 is a certification related to better performances that are indicated by the increase in process productivity and control, the reduction in resources' consumption and waste, and the improved quality of products/processes (Sartor et al., 2019).

In order to help and guide companies both in their intent to become more sustainable and to disclose information about what they are doing, some frameworks were developed. One example is the Global Reporting Initiative (GRI), which aims to homogenize the diverse current reporting systems and to deliver a platform for an active dialogue regarding the definition and practices of sustainable performance (Jianu et al., 2016b). The GRI is the world's most widespread framework for CSR reporting (Colucci et al., 2020).

Another widely used framework is the Dow Jones Sustainability Index (DJSI). The DJSI uses the sustainability, environmental, and governance (ESG) practices of the companies to create a stock index that gets the highest 20% of the biggest 600 stocks in the S&P Global Broad Market Index (BMI). DJSI is a leader in sustainable stock indexes and, according to research, it helps companies CSR goals as well as adds value to the business (Forcadell & Aracil, 2017).

The above-mentioned frameworks are not definitive. There are other ones that, along with these, help a company not only to organize the communication they will publicize regarding their sustainability efforts, but also internally define management strategic priorities in order to comply with existing frameworks expected goals.

3.2 The concept of Corporate Communication

According to Melewar & Karaosmanoglu (2006), corporate communication is a term that encompasses all the ways a company can dialogue – hear from, and talk to – its various stakeholders. From a strategic administration perspective, communication represents a crucial skill

needed to investigate and build the diverse paths for the exchange of ideas across functions, organizations, and industries (Pfeffermann et al., 2013).

The process of communication strategy can be divided into three main steps: communication research (to identify the problem), communication design and implementation (to solve the problem), and monitoring and evaluating to assess the solution (Mefalopulos & Grenna, 2004).

An important division made regarding corporate communications are the control the company has over the content produced. Controlled corporate communications stand for the pieces of content a company has control of, and can be produced, and measured, at the different corporate levels (Melewar & Karaosmanoglu, 2006). On the other hand, uncontrolled corporate communication is defined by the perception different stakeholders may have from the communication produced and brand image created (*ibid.*). This second one cannot be controlled by the company but can be influenced by the controlled communication produced.

Since the objective of this research is to understand the communication processes inside companies, our focus will be mostly in both comprehending and explaining the controlled communication, namely what content is produced and how it is measured.

Despite previous studies attempts to categorize and separate corporate communication in specific and delimited definitions – e.g. public relations (Grunig, 2013), marketing communication (Kayode, 2014) and organizational communication (Lunenburg, 2010) – most people within companies admit that these separations do not comprehend the vastness of communication possibilities existent nowadays in MNCs (Melewar & Karaosmanoglu, 2006).

Moreover, the surge of the concept of integrated marketing communication (IMC) is an attempt to explain, and work with, the different communication possibilities within a company who is trying to accomplish sustainability goals. According to Šķiltere & Bormane (2018), IMC has two main objectives: 1) to create internal conditions (internal communication activity planning, business structures, employees, implementation, and integration) for effective external communication, and 2) to coordinate and approve external communication actions in order to assure a clear, unified and comprehensible business image.

Regardless of the complexity inherent to the corporate communication structure, previous research has dedicated a great amount of energy into categorizing the specific area of the corporate communication responsible to convey topics related to sustainability and CSR. This topic will be covered in the next section.

3.2.1 Sustainability communication and CSR talk

Previous research has shown that sustainability and CSR are of great importance for the competitiveness and innovation of companies, since it plays an important part in improving the image and reputation of a business (Reilly & Hynan, 2014) and in legitimizing the actions a company makes (Parguel et al., 2011; Seele & Lock, 2015; Zatwarnicka-Madura et al., 2019).

Since brand image and perception are closely related to corporate communication, talking about CSR is a fundamental part of a business's CSR strategy (Carroll, 1999; Salzmann et al., 2005; Wood, 1991). Studies have defined the broadness of communication channels arrayed by organizations to communicate with stakeholders as CSR 'talk' (Colucci et al., 2020; Wickert et al., 2016).

One of the divisions used to categorize CSR communication inside a company is a separation in two dimensions: 1) the internal dimension and 2) the external dimension. The internal dimension corresponds to communication and processes that happen within businesses of all kinds (companies, associations, societies, etc.). This dimension uses a variety of instruments that help to inform collaborators to communicate with each other, to convince the members of the company of something or to enhance loyalty, and to improve job satisfaction (Linke & Zerfass, 2011). The external dimension, on the other hand, consists of strategies and tools used to inform external stakeholders about business initiatives (Reilly & Larya, 2018).

When considering sustainability communication, other distinction possible are formal corporate communication such as CSR documents reports and annual 10-K submissions (Reilly & Larya, 2018), and informal social media channels used to report CSR agendas, and sell products and services (*ibid.*). More examples of these dimensions can be observed in Table 1.

Table 1– *Dimensions of communication with examples*

	Internal	External
Formal	CSR memos Code of conduct Book of guidelines Intranet	CSR Reports Websites Press releases
Informal	Employee / Manager peer to peer communication Internal dialogues	Social Media channels Customer service communication

This categorization aims to explain the tools used to communicate sustainability, and the target audiences to whom these communications are developed. For achieving a maximum result with minimal effort, a strategic approach to communication planning has consider the relation between the target audience's segmentation, the selection of transmission channels, and the objectives of the communication (Bucur & Petra, 2011). In the next section we dive deeper into tools, target audiences, content design, and the existing classifications.

3.2.2 Target audiences

Strategic communication designs must be systematic and planned. This essential planning stage must take into consideration the objective of, in the context of CSR, increasing the knowledge of the target-audience in the hope of shifting their attitude and practice regarding a specific topic. When developing communication strategies, important stakeholders mentioned by companies are: the industry; the financial sector; accounting professionals; civil society, NGOs working in the field of human rights; and environment and other stakeholders (Jianu et al., 2016a).

Although it is necessary to distinguish between stakeholder issues and social issues (Clarkson, 1995), these actors are intrinsically connected. For sustainable solutions to be widely adopted and implemented in different social areas, the actions too must be synchronized. Since the purpose of any company is to create and distribute increased wealth and value to all its stakeholders, without favoring one group (e.g. shareholders) at the expense of others (e.g. society and collaborators), (*ibid.*), to have a 'sense of connection,' two-way communication between different stakeholders and the company is essential (Ayman et al., 2020). And in many cases, the choices made for CSR communication (e.g., through reports) favor some groups (e.g., investors and evaluation companies) and disregard others (e.g., society, customers, and collaborators).

Social media can be successfully used to access different target audiences (Negruşa et al., 2014). Previous research shows that social media usage to execute CSR campaigns enables corporations to communicate their socially responsible activities (Stanislavská et al., 2020). Nonetheless, when comparing the efforts of the enterprises in corporate initiatives and commercial purposes, they do not invest considerable efforts and resources in sustainability communication online (Y. C. Lee, 2017). This shows that financial profits and stakeholders as the industry, the financial sector, and accounting professions are most targeted and benefited, and economic growth remains the center

of corporate communications (*ibid.*). The next section deepens the discussion of tools used for communication and how the tool can benefit specific target audiences.

3.2.3 Tools

Communication tools include any tool (or offline or online channel) that can help to better understand others and be understood. Some means of external marketing communication with target audiences are, for example, digital television, advertising in online games and mobile applications, messengers, interactive screens, POS-terminals, local networks of large cities (Ugolkov et al., 2020). For written media, the tools can be memos, letters, reports, bulletin boards, handbooks, or newsletters (Lunenburg, 2010). Team or interoffice communication for verbal media include tools like mail, email, and phones, as well as apps and software (Lunenburg, 2010).

When considering sustainability, some tools are instrumentally used by companies to communicate with stakeholders and inform them about environmental and social initiatives. Some examples are CSR reports, corporate websites, advertising, and product labeling (Colucci et al., 2020). For example, social media, such as YouTube, Twitter, Facebook, and Instagram, are also tools used to communicate CSR and sustainable actions and values to society (Stanislavská et al., 2020). Social media refers to technology-facilitated dialogue that differs from traditional media by providing a two-way interactive experience between organizations and individual consumers, rather than media outlets broadcasting information with no direct reaction or response (Kaplan & Haenlein, 2010). Nowadays, organizations can adjust their messages based on public opinion, and social media provides an interactive communication platform for dialogue (Ayman et al., 2020).

According to Seele & Lock (2015), the tools used to communicate sustainability may be divided in two ways: 1) corporative – i.e. strategies aim to satisfy the economic needs of the company first – or 2) deliberative – i.e. mostly equipped with dialogical functions in order to facilitate two-way communication. Another division is between published and unpublished communication.
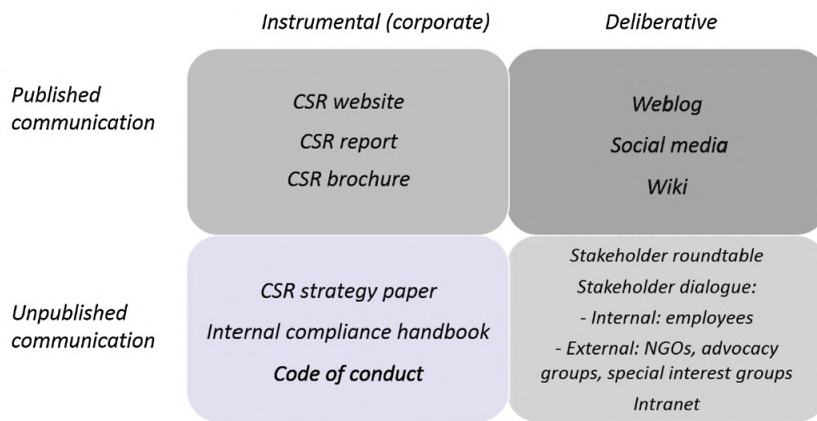
Figure 2- A typology of CSR communication tools. Source: (Seele & Lock, 2015)

Although CSR, sustainability reports, and corporate websites are tools commonly chosen to deliver the corporate sustainability message to its diverse stakeholders (Colucci et al., 2020; Tsalis et al., 2018), the traditionally used tools may not be the most adequate, or even enough to pass on the sustainability message across all target audiences since sustainability reporting evolved into sustainability communication (Lodhia, 2018).

Modern consumers need broadly available information, anytime and anywhere, and advertising on social networks can have a relatively more considerable influence than other types of advertising (Korenkova et al., 2020). Despite the potential use of new platforms (such as social media), there is a sustainability marketing communication gap between customers' focus and enterprises' focus on social media. Enterprises manage sustainable marketing communication on social media using a corporate approach, rather than a customer-centric approach (Y. C. Lee, 2017).

When designing the content, it is imperative that companies consider target audiences preferences along with the possibilities allowed by new media, such as short and long videos, images, infographics, and interactive contents. This topic will be approached in the next section.

3.2.4 Content design

Communication development requires a phase of content design and definition of styles, and even formats to be used. Some processes developed to design the communication content to be used, and strategies to be implemented are inherited from architecture disciplines, such as design thinking. Previous research has shown that integrating design approaches with sustainability

science offers considerable opportunities for achieving SDGs efficiently and effectively amid real-world complexity (Maher et al., 2018).

According to Siano e. al. (2016) important principles of the sustainability communication design refer to the dimensions of visibility, clarity, authenticity, accuracy, consistency, and completeness. For assessing the sustainability content produced online a framework was created in order to evaluate the orientation, structure, ergonomics and content – OSEC – (*ibid.*). Some of the items evaluated are the existence of interactivity and multimedia, items that extrapolate the traditional and simple text used to communicate.

The OSEC framework concur with existing research that shows that while communicating social responsible activities and processes, visual approaches such as images, graphics, and videos may help as modern and appealing content (Maher, Maher, McAlpine, et al., 2018; Reilly & Larya, 2018; Sheppard, 2005).

To ensure the communication produced is successful on its pre-established aims it is important to define metrics and monitor the success of the content. This is what the next section talks about.

3.2.5 Effectiveness measurement

Within marketing and communication there is a broad diversity of manners to measure the efficacy of communications. Marketing researchers usually choose short-term reactions to campaigns for predicting long-term behavioral changes (Evans et al., 2009). Common tools used to measure communication and marketing efficacy are recall and recognition; reactions to message targeting, tailoring, and specific ad executions; behavioral precursors (e.g., attitudes, beliefs, intentions) compared across exposed and unexposed populations; behavior change compared across exposed and unexposed populations; paid media campaign implementation; unpaid media campaign implementation (e.g., self-report); moderators of behavior change; mediators and other constructs from communication, and behavior change theory (Evans et al., 2009).

Although it may appear that the goals of marketing are opposite to the ones of CSR, marketing, and behavioral science can inform CSR communication on how to deploy strategies to best influence audiences to be more sustainable (White et al., 2019). It is of common knowledge that, although most report favorable attitudes toward pro-environmental behaviors, stakeholders often do not subsequently display sustainable actions. This incongruity between what people say and do is possibly the biggest challenge for who wants to promote change towards sustainability (*ibid.*).

Recent research proposes a framework consisting of five essential topics to be considered to measure the efficacy of marketing regarding sustainability(White et al., 2019):

- Social influence: the impact the presence, behaviors and expectations of others may have in their own attitudes;
- Habit formation: behaviors that persist due to becoming automatic over time as a result;
- The individual self: the image, values, and perceptions an individual has over oneself;
- Feelings and cognition: feelings and thoughts a given action can bring up in a person;
- Tangibility: making ideas and concepts regarding sustainability tangible.

Each one of these dimensions have elements to be measured. The elements and their definitions are further explained in *Table 2.*

Table 2 - *Framework of guiding dimensions to be measured aiming sustainable behavior adoptions*

Dimensions to measured	Elements to be measured	Definitions
Social influence →	Social norms	the norms or beliefs socially approved in a given context
	Social identities	the sense of identity of a given group or membership
	Social desirability	the impression a given action has on others
Habit formation →	Discontinuity to change bad habits	a disruption in the context that leads to habit change
	Penalties	punishments dedicated to a given undesirable behavior
	Implementation intentions	steps that encourage desired action
	Making it easy	contextual changes that facilitate the implementation of a desirable habit
	Prompts	messages given before a behavior occurs to remind what the desired behavior is
	Incentives	rewards, discounts, gifts, and other extrinsic incentives
	Feedback	providing specific information regarding one's performance
The individual self →	Self-concept	the image and perception a person has of oneself
	Self-consistency	the reaffirmation of the self-concept
	Self-interest	the interest a person has on a giver behavior or activity to benefit oneself

Dimensions to measured	Elements to be measured	Definitions
	Self-efficacy	beliefs that carrying out the behavior will have the intended impact
	Individual differences	self-perception of an individual self-standards
Feelings and Cognition →	Negative emotions	negative emotional consequences to a given behavior
	Positive emotions	positive emotional consequences to a given behavior
	Information, learning, and knowledge	adding knowledge to a person
	Eco-labeling	conveying information about sustainable attributes
	Framing	delimitation of possible scenarios expected given a specific behavior
Tangibility →	Matching temporal focus	bringing actions and consequences to a present moment, rather than a future one;
	Communicate local and proximal impacts	talking about impacts a given behavior has on its proximities
	Concrete communications	communicate concrete narratives such as clear relevance or consequence of a given behavior
	Encourage the desire for intangibles	the promotion of dematerialization

4. Methodology

Most prior studies investigating the issue of sustainability communication have been conducted from the perspective of either internal or external communication in university settings or even in small companies, with little focus on MNCs and even less focus on the integrated approach (both internal and external communication). By acknowledging the plethora of uses through which sustainability can be communicated, an integrated research process can both be perfectly useful to understand communication made by MNCs from an outer perspective and while also being of value to comprehending integrated communication processes from an internal viewpoint.

However, as demonstrated earlier, existing research mainly considers the processes in a generic fashion. This is to say that, despite the importance and challenging nature of this issue, communication processes specific to sustainability have not yet been broadly studied in the context of MNCs and large corporations. Grounded in the notion that there may be a common process, useful to a great deal of companies, the goal of this chapter is to design a methodology to understand the processes used within MNCs and large corporations to communicate sustainability. To do so, we draw a mixed methodology that allows further understanding of the issue.

4.1. Research Design

Similar to Dodds et al. (2020), this study employs a mixed methods approach aiming to gather and correlate information (see *Figure 3*). The study is composed of two phases. Phase A is the preliminary assessment which will lead to an initial framework proposal. Phase B is the iterative project in which we correct and improve possible incongruities existing in the first proposal.
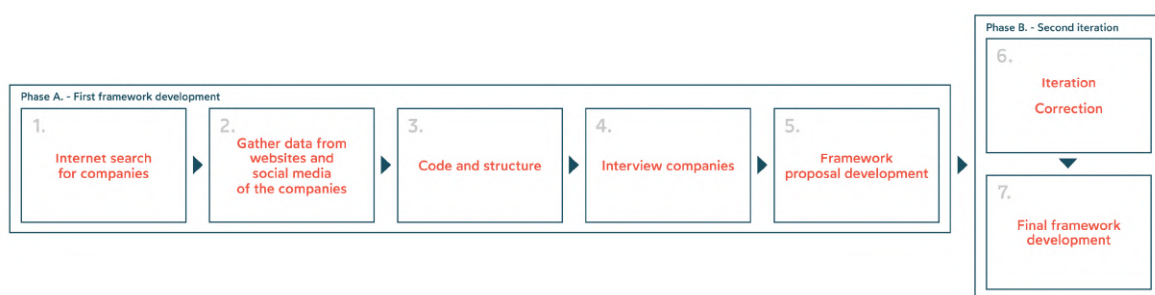
Figure 3 - Research Design

A mixed methods approach is defined as "the collection or analysis of both quantitative and qualitative data in a single study in which the data are collected concurrently or sequentially, are

given a priority, and involves the integration of the data at one or more stages in the process of research" (Creswell et.al. 2003, p.212).

4.1.1 Phase A

During the first phase of the research (Phase A), the data collected in digital media (stage 2) was encoded (stage 3) in Microsoft Excel using binary code (0 in case of non-occurrence or 1 in case of occurrence) for single option items (for example, the existence or not of a sustainability tab in the company's website).

Regarding the websites of the companies, the information coded was:

- Sustainability Tab/Page on website
- Text regarding sustainability on website
- Images regarding sustainability on website
- Infographics regarding sustainability on website
- Videos of sustainability on website
- Sustainability Reports on website[15]
- Sustainability Blog / News
- SDGs mentioned on website / last report[16]

Regarding the social media of the companies, it was coded both the existence (or not) and the number of followers in the following social media platforms:

- LinkedIn
- Facebook
- Instagram
- Twitter
- YouTube

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[15] For sustainability reports it was coded the year(s) of the report(s) available online

[16] For SDGs it was coded the number of the SDGs mentioned both on the website or on the report of the company

After gathering and coding the data, interviews (stage 4) were to be completed with 12 selected individuals and companies[17] with the aim to better understand the processes that happen within the companies, and to compare the processes between companies.

The two hypotheses to be studied were:

H1: There is a clear, well defined process of communicating CSR within each company;

H2: It is possible to define a set of common elements of the process of communicating CSR across different companies;

As the IMC consists of external and internal dimensions, the interviews are focused mainly in these dimensions, framing what is not able to be accessed publicly. In order to complement the study, dimensions of the corporate identity were included in the dimensions to be studied given that businesses develop a distinct and recognizable identity, that helps them align with the marketplace, attract investment, motivate employees, and serve as a means to differentiate their products and services (Melewar & Karaosmanoglu, 2006). During the interviews (Stage 4), the dimensions to be analyzed within the companies are:

- Corporate Strategy
- Corporate Structure
- Corporate culture
- Behavior
- Corporate Communication

Corporate strategy is the blueprint of the fundamental objectives and strategies of the company for competing in their given market. It thus determines what the company produces, the level of profit made, and stakeholder perceptions about the company (Melewar & Karaosmanoglu, 2006). Hence, this work will seek to evaluate:

  o The existence of clear strategies that consider sustainability as a key component;
  o The influence of the strategy over the sustainability communication process;

Corporate structure consists of organizational structure and branding structure. The concepts are associated with the organizational brand design and structure as well as the hierarchy, lines of communication and reporting responsibilities *(ibid.)*. Hence the work assists to evaluates:

  o Human resources dedicated to sustainability;

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[17] Companies interviewed were 2021 Global 100 Index companies which answered timely to our interviews requests.

- o Sustainability knowledge;
- o Financial resources for sustainable related activities and publications;

Corporate culture is the consensus within a company about how activities should be accomplished, and is conceived as a result of a shared experience of a group and learning with respect to matters of external adaptation and internal integration *(ibid.)*. Hence, this work evaluates:

- o The existence of internal guidelines towards sustainability
- o The importance of sustainability within the mission and vision of the company

Corporate behaviors are corporate actions in their entirety (both the ones planned and congruent with corporate culture and the ones that occur spontaneously), and could also be understood as what the organization "does" which is clearly linked to perceptions of what it "is" *(ibid.)* (Melewar & Karaosmanoglu, 2006). In this dimension, this work evaluates:

- o The existence of employee driven sustainable activities and ideas;
- o The existence of management organized sustainable activities;

Finally, corporate communication consists of all of the ways in which the organization communicates with its various stakeholders. Thus, all the messages emanating from an organization, everything that it communicates, and all of the activities it is involved in, will act to shape the perceptions of the stakeholders *(ibid.)*. Hence, this work evaluates:

- o The internal communication;
- o The external communication;
- o The communication strategy;

In case the interviews cannot answer satisfactorily all the aforementioned, data gathering (Stage 2) will be used as supplement to complete possible items that may remain unanswered. Phase A culminates with a proposal of a holistic framework design.

4.1.2 Phase B

During Phase B, the first framework proposed went through a validation process. To do this iteration, that allows for corrections and improvements of the model, the first framework developed was disassembled into smaller parts to create a step-by-step development of the framework developed and receive punctual feedback as the object was explained.

In Phase B, two Portuguese companies were chosen since the research was performed in a Portuguese university. Moreover, the goal was to reach companies outside the first ones used to delineate the framework, since the goal was to validate and iterate the framework for it to be

broadly used by companies without the first scope of the study. Finally, the chosen companies have a proven track with sustainability, being participants of the GRI and having non-financial reports produced. This choice was made because, although the goal was to reach companies outside the Global 100 so they could give valuable insight regarding the SCF, for the feedback to add more value to the first framework developed, the companies interviewed must have had some level of familiarity with the research topic.

4.2 Website and Social Media Analysis

In stage 1, companies were located using the public list of the 2021 Global 100 Index available through the Corporate Knights website. As previously mentioned in chapter 1, G100 is recognized as a leader in corporate sustainable development ranking. The list consists of 100 key enterprises representing all continents in the world. They were recorded and then coded for comparison purposes. Second, a web content analysis was undertaken to identify sustainability initiatives.

The webpage of each company was analyzed systematically by initially looking at the home page, followed by the "about/info" pages, all other pages and then as a check by conducting a search of the website for key terms of environment, social responsibility and sustainability.

Web content was coded on Microsoft Excel using a binary code of 1 or 0 (1 being evidence of initiative, 0 being no evidence). Thirdly, each company was reviewed for their sustainability content within their websites, and whether they had any social media presence.

Fourthly, the existence of social media profile in the social medias LinkedIn, Facebook, Instagram, Twitter and YouTube was also coded by using a binary code of 0 and 1 (1 being evidence of social media profile existence, 0 being no evidence) and the quantity of followers or subscribers each company had was accounted for each one of the social media profiles found.

4.3 Interviews

Previous research conducted has shown that there are not many previous qualitative studies approaching this subject. However, in 2015 a Master's thesis was developed to answer questions regarding sustainability communication in the fashion industry eleven questions were made (Sven, 2015). From these, two questions were used to inspire the questions to be posed in this study:

1. Which types of communication are (Online news, print media, clothing labels, CSR reports, in-store advertisements, etc.) efficient and which ones are less usable? (*ibid.*)

2. How would you describe your differentiation strategy when it comes to Sustainability Marketing in comparison with competitors? What makes your communication strategy special? (*ibid.*)

The research to be conducted is considered to be exploratory research, as the nature of the topic under study cannot be measured in a structured nor quantifiable manner, and the problem needs to be defined more precisely (Malhotra et al., 2017). The methodology chosen for stages 4 and 6 was the in-depth interview, which allows going beyond common-sense explanations, and offers multiple views and perspectives, in terms of the meanings of a given topic, in this case, the sustainability communication process within Global 100 companies.

4.3.1 Research Instrument Iteration

In order to test the first iteration of the research instrument, six interviews were conducted with people from different large companies (Table 3). The selection was made based on the similarity of the business structure with the companies to be analyzed.

Table 3 - *Summary of interviews made with initial protocol*

Objective	Test the first iteration of the instrument
Sample	Six interviews with people of different profiles working in large companies.
Sample characterization	Six people were interviewed. Three of the interviewees are from the sales department, two from the Marketing department and one from the Customer Success department. The interviewees were selected from convenience and there was no exclusive choice of respondents who correspond to a specific job profile within the company, precisely to test the questions amongst different profiles.

The interviews were conducted with the initial protocol set to be used in the interviews with representatives of the Global 100. During the interviews, notes were taken of the respondents' answers, the respondents' reactions to the questions, and the observations made after each question. In addition, the interview duration was timed to measure the length of the interviews. After the end of each interview, respondents were invited to provide feedback.

4.3.2 Recommendations for the final interview protocol

The following section provides a summarized conclusion after the observations made about the research instrument. The in-depth discussion can be found in Appendix II. After the interviews

were made, the script was reassessed and readapted to accommodate useful feedback. The final research instrument (with dimensions to be analyzed by each question) is in Appendix III.

As concluded after the six preliminary interviews, the responses corresponded to what was expected from the research design. Thus, the basic structure of the script was kept, but organized differently, according to three parts: i) the strategic part of the company, ii) internal communication and ii) external communication. As suggested in interviews 3, 5 and 6, an introduction was added for clarifying the organization of the questions in the three aforementioned blocks.

Each question was constructed to prompt answering more than one dimension (as explained on Chapter 4) In addition to changes in the structure, the organization in more comprehensive questions with later funneling in specific aspects of the communicative process was maintained.

As suggested in interviews 1, 4 and 6 and as perceived by the respondents' reactions, an explanation of the concept of sustainability was included in question 2 for clarification. In addition, in some of the questions, examples of the concepts (e.g, channels, target audiences) were included to be mentioned on demand (in case the interviewee needed further clarification about a concept).

Finally, the final sample defined for the research corresponds to two complementary profiles:

Table 4 - *Profiles of professionals to be interviewed*

Profile	Objective
Responsible for communication within the companies to be analyzed	From this profile, it was expected to have a good understanding of the processes related to communication, content choices, target audience and channels, as well as measuring the effectiveness of communication.
Responsible for strategy within the sustainability department within the companies	From this profile, it was hoped to be able to understand the structure of the sustainability teams within the company, to whom they respond, what is the sustainability role on the business strategy and how it interferes in business communication.

5. Website and Social Media Data Gathering

This chapter aims to talk about the analysis performed on the Global 100 websites and social media pages. The goal was to understand their presence and communication preferences, such as tools used to communicate (e.g., text, video, infographics, images), their social media platform presence, audience size, availability of annual and sustainability reports on the website, and the explicit disclosure of sustainability targets and goals while relating them to SDGs.

As aforementioned, according to the OSEC model (Siano et al., 2016) there are a number of elements – regarding orientation, structure, ergonomics and content – necessary for more effectively communicating sustainability in digital environments. During this analysis, different aspects regarding orientation (mission and vision), structure (presence of materiality matrix, infographics and sustainability blog), ergonomics (multimedia), and content (visibility of information about sustainability on the home page, consistency between image and text in sustainability section) were evaluated.

These aspects were selected due to the character of this research that, firstly, did not aim to exhaust the website analysis but to use it as a complement to the interviews process; and secondly did not focus only on online communication, but in a combination of processes. Therefore, these aspects were considered the key ones to be analyzed during this non exhaustive part of the research.

After analyzing the websites, social media, and Annual Reports and Sustainability Reports (when applicable), it was possible to reach determine some inferences as it will be discussed in the following chapters. It is worth mentioning that the focus was on the analysis of corporative social media. Therefore, in the case of companies that are holdings and have subsidiary brands and enterprises, the specific brands' social media was not analyzed, neither their specific website. In some cases, such as the National Australian Bank, there was an investor website specific to topics related to the company, sustainability being among them. Also relevant, some companies had sustainability-specific social media pages, as is the case of City Developments Ltd.. Adidas and Essity had corporate social media channels and content dedicated to careers.

5.1 Website Data Gathering

Of the 100 companies analyzed, only three did not have a sustainability page or tab within the website. 61 enterprises had a sustainability tab or page named exactly "Sustainability" in which topics related to either environmental, social, or economic sustainability were disclosed. This

shows good visibility and completeness of the content as well as navigability, which contributes to the ergonomics[18] of the website. The other 36 companies had a sustainability dedicated page or tab under another name, the most common ones were Corporate Responsibility or Corporate Social Responsibility.

All companies analyzed had text regarding sustainability in their corporate website (Graphic 1), whether inside or outside of their sustainability pages or tabs. Eight companies did not use images as a tool to communicate sustainability. 59 companies used videos as a tool to communicate sustainability. According to OSEC, these results show for a lack of multimedia[19] use when considering ergonomics. Since multimedia refers to the combined use of different media, the fact that most companies use only text and image shows a lack of diversity of media being used online.

Communication Format in Websites

Images ■ Infographics ■ Video ■ Text ■
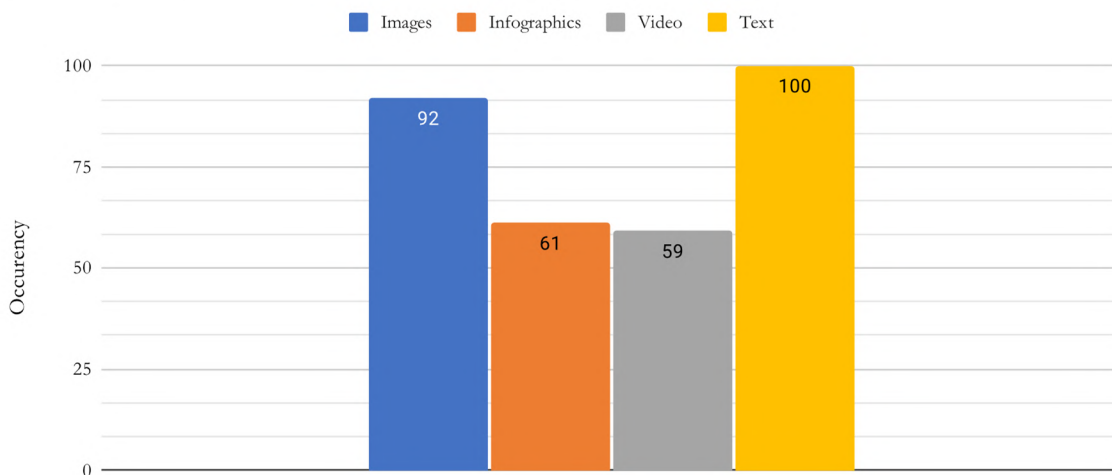
Graphic 1 - Communication Format in Website

Only 21 of the 100 websites analyzed had specific areas dedicated to sustainability information, such as a blog. 39 companies did not use any type of infographics or materiality matrix to inform stakeholders about their sustainability actions and results. Therefore, the lack of infographics,

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18 "Ergonomics refers to the ability of the website to ensure easiness in the navigation process and an appropriate fruition of content by users" (Siano et al., 2016, p.6).

19 "Multimedia refers to the simultaneous and integrated use of different media within the website" *ibid*.).

materiality matrix, and specific area dedicated to sustainability information, show a lack of stakeholder engagement tools[20] in the website structure according to OSEC.

Also worth noting, within the websites of the companies it was possible to see a tendency of growth towards the production of annual and sustainability reports across the years (Graphic 2). This shows a tendency of growth in the production of this type of communication. Moreover, it shows the companies search for disclosing their sustainability information via their non-financial disclosures in the format of reports. This happens in accordance with EU legislation that considers companies with a certain profile must disclose non-financial information in specific formats (European Comission, n.d.).

Annual Reports
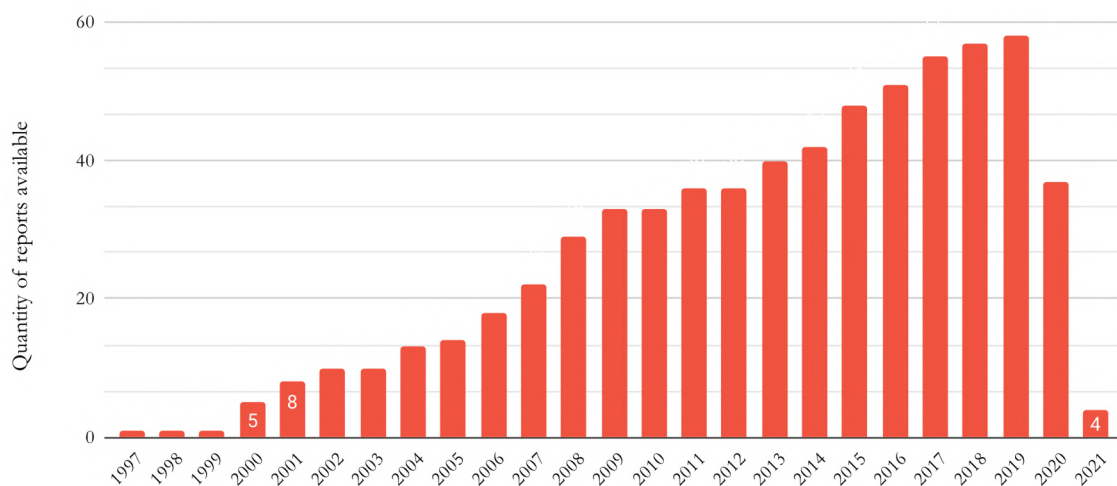
Graphic 2 - Annual reports in companies websites

Since the G100 encompasses companies outside of the EU, in regard to disclosing sustainable practices, it is possible to assume that European legislations, and practices, have also stretched their influence over to other practices from other countries. This is noticeable by the presence of SDGs mentioned in the websites. Only 10 out of 100 companies analyzed did not mention any sustainable development goal in their websites or in their reports available online. From the SDGs mentioned, SDG 1 – No Poverty, and SDG 3 – Good Health and Well Being were the most cited as important to the companies, followed by SDG 7 - Affordable and Clean Energy, SDG 13 –

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20 Stakeholder engagement tools "involve participatory processes aimed at facilitating the involvement of stakeholders in corporate practices" (*ibid.*). Items measured to evaluate this aspect are: materiality matrix, stakeholder engagement case study, community and forum, corporate blogs, interactive graphs of sustainability, and glossary and FAQ about sustainability

Climate Action, and SDG 2 - Zero Hunger (Table 5). It is also possible to notice the low number of mentions of the SDG 14 – Life Below Water, SDG 15 – Life on Land and SDG 16 – Peace and Justice Strong Institutions.

Table 5 - *SDGs, objectives and website mentions*

SDG	Objective	Website Mentions
1	No Poverty	81
2	Zero Hunger	66
3	Good Health and Well-being	78
4	Quality Education	51
5	Gender Equality	64
6	Clean Water and Sanitation	56
7	Affordable and Clean Energy	67
8	Decent Work and Economic Growth	63
9	Industry, Innovation and Infrastructure	47
10	Reduced Inequality	40
11	Sustainable Cities and Communities	39
12	Responsible Consumption and Production	58
13	Climate Action	67
14	Life Below Water	25
15	Life on Land	31
16	Peace and Justice Strong Institutions	31
17	Partnerships to achieve the Goal	37

5.2 Social Media Data Gathering

Of the 100 companies present in the Corporate Knights Index, it is relevant to disclose that LinkedIn was the most utilized social media among all companies analyzed (Graphic 3). Only one in 100 companies did not have a LinkedIn corporate page. According to Lipińska (2018), given that "LinkedIn's advantage over other social networking sites is based on a well-defined target group, which includes business partners and employees" the companies choices for social media profiles focus on corporate, current or future employee communication. The great LinkedIn

presence also shows an emphasis on communicating to investors, analysts, and professional stakeholders, while not so much on talking to final customers.

Social Media Accounts
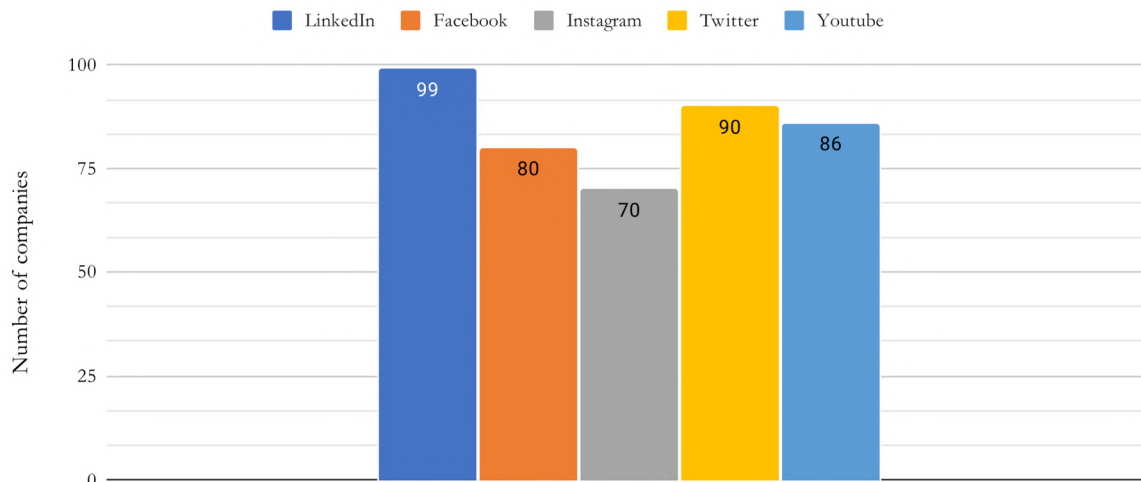
Graphic 3 - Social Media Accounts

LinkedIn also showed the largest quantity of followers per company when compared with other social media channels; 23 of the 100 companies analyzed had more than 1.000.000 LinkedIn followers. This shows a tendency for people to follow more corporate pages in a professional social media environment rather than in other more informal social media platforms.

The second most utilized social media channel by the reviewed corporations was Twitter. Only 9 out of 100 companies did not use Twitter. Nonetheless, amongst those who use Twitter, the average number of followers was between 10.000 and 100.000.

YouTube is the third most utilized social media channel in this analysis. Only 11 out of the 100 enterprises did not use YouTube. Like Twitter, the average number of subscribers in the companies YouTube channels was anywhere between 10.000 and 100.000. In the case of YouTube, however, it is considered as an exception due to the possibility to embed the videos posted on YouTube on the business websites or other social media channels, and even use these videos as Ads to publicize the business in other websites.

Of the 100 companies analyzed, 19 did not use Facebook as a social media channel, and 27 did not use Instagram.

Regarding Facebook and Instagram, two of the companies that use these social medias, have a page dedicated to careers. This shows a focus on employees, or future employees and less on the brand or product itself. Therefore, in these cases, we might assume that the focus of Facebook and Instagram is more towards the professional audiences, such as current and future employees, more than final customers.

6. Interviews with companies

6.1 Introduction

This chapter aims to disclose the findings reached after the interviews with companies of the Global 100 Index were completed.

As previously mentioned, so far as we were able to ascertain, most prior studies investigating the topics of sustainability communication have been conducted from the perspective of SMEs, with a great amount of social media content analysis, and with little focus on MNCs. Moreover, it is well-accepted that the various ways in which sustainability is communicated may represent different focuses within the same, broad subject. For instance, a communication campaign made to be vehiculated on YouTube is unlikely to have the same objectives and target audiences of a CSR guideline for employees. By acknowledging the plethora of processes by which sustainability can be communicated, it follows that a common process may be useful both to be fully followed or to be mirrored by other businesses.

Grounded in the notion that sustainability is a topic with growing importance – and its communication and goal reaching is becoming mandatory worldwide – the goal of this chapter is to analyze the processes developed by businesses for communicating sustainability topics and initiatives. After this step, we derive a conceptual framework from initial interviews.

Specialists of the G100 companies were contacted either by email, on a general company email for the sustainability department found at the corporate website or at the reports; or by LinkedIn, where a search within the pages of the companies was conducted by searching for sustainability or communication keywords. Specialists of both these areas were sent connection requests along with a summarized explanation of the study and a request for an interview.

Interviews were conducted with key decision-makers at the companies through Google Meet, Microsoft Teams or Skype calls between the months of March and May 2021. The majority of the interviews (9 out of 12) were carried out with Managers and Directors in order to obtain a more robust, holistic, view of the various challenges, both technical and non-technical, that can be found in the decision making of business and communication strategies, and communication processes.

Companies from I1 to I12 (Table 6) are listed on the Corporate Knights Global 100 list. Nonetheless, to further address the topics of analysis and compare the processes with other

businesses not in the list, interviews I13 and I14 (Table 8) were performed in a subsequent step for further understanding of the processes.

Table 6 – *List of Global 100 Index Companies Interviewed*

Code	Nº of employees[21]	Segment	Title
I1	99.161	Banks and Investment Services	Chief Marketing Officer
I2	99.161	Banks and Investment Services	Corporate Sustainability Executive Manager
I3	40.000	Personal Products	Corporate Communication Manager
I4	2.870	Power Generation	Sustainability Expert
I5	4.400	Oil & Gas	Sustainability Manager
I6	96.892	Banks and Investment Services	Head of International Coordination – former CSR Manager
I7	3.300	Banks and Investment Services	Corporate Sustainability Director
I8	77.500	Communications Equipment	CSR Report Lead
I9	6.125	Pharmaceuticals and Biotechnology	Head of Global Sustainability Services
I10	58.000	Grocery and Diversified Stores	Sustainability Measurement & Reporting Manager
I11	199.000	Banks and Investment Services	Head of Sustainability
I12	537.000	IT Consulting & Services	Corporate Citizenship Senior Manager

6.2 Findings after interviews with G100 companies

In this section we describe the findings encountered when comparing the multiple interviews performed with the companies, and we provide some discussion regarding the subject. In summary, the two hypotheses proposed to be studied in Phase A (H1: There is a clear, well defined process of communicating CSR within each company; H2: It is possible to define a set of common elements of the process of communicating CSR across different companies) were satisfactorily answered. H1 was answered, although not completely because in not all cases the process of communicating CSR is clear and well defined. H2, though was answered in its entirety. It was possible to define a set of common elements of the process of communicating CSR across different companies.

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21 According to Google research performed on May 15th, 2021.

The responses were coded according to the initial methodology proposed in chapter 4. The diverse answers were compared and put together for understanding each topic more comprehensively. To summarize this section, the findings were organized in a table format so that it simplifies the comprehension of the amount of data gathered. In-depth discussion can be found in the Appendix IV. In Table 7 it is possible to obtain a summary of the most relevant findings.

Table 7 - *Findings after interviews with G100 companies*

Dimensions Analyzed	Items Evaluated	Findings
Corporate Strategy	Overall strategy	Two main types of companies were detected: 1) born with some level of sustainability awareness; 2) developed components of sustainability over time. Sustainability is embedded into everything that they do. Sustainability is a key risk management value for financial companies.
	Strategy's impact on the communication processes	With the development of a clear sustainability strategy, all G100 MNCs said they now have targets and plan to communicate sustainability both internally and externally.
Corporate Structure	Human resources dedicated to sustainability	All companies interviewed have a clear sustainability structure within the company framework. The most common setting is the existence of a sustainability department which is subordinate to a Chief Sustainability Officer (or other Chief Officer). This department has a close relationship with the communications departments. The sustainability department is the main responsible for the sustainability strategies across the company and for overseeing the sustainable activities taken across the business, and to condense them. The sustainability departments of the companies are composed of people from diverse sectors. Although the communication departments and the sustainability departments work closely together, it is uncommon to have a person specialized in sustainability within the communication teams.
	Sustainability knowledge	All G100 companies interviewed have courses and workshops aimed to further develop the knowledge about sustainability of their workforce. Some strategies used to engage their employees were to include these initiatives as a mandatory part of the training or to give benefits for adhering in sustainability initiatives.
	Financial resources for sustainable related activities and publications	The sustainability department has its own budget that may be destined to address diverse objectives according to the goals and needs established

Dimensions Analyzed	Items Evaluated	Findings
Corporate culture	Existence of internal guidelines towards sustainability	All G100 companies interviewed have guidelines regarding sustainability
	Importance of sustainability within the mission and vision of the company	All companies interviewed mentioned sustainability as a part of their purpose and of their business mission, but only three of the interviewed companies have specific words of "sustainability" or "sustainable" mentioned in their mission statement available online
Behavior	Existence of employee driven sustainable activities and ideas	There is a growing interest to raise the employee's knowledge and behavior towards a larger sustainability consciousness.
	Existence of management organized sustainable activities	In all G100 companies interviewed, sustainability gained space when it was considered important, both for external image and internal practices, a decision made by the management team.
		Two important decisions were: 1) Beginning to do reports and; 2) Creating a separate department for sustainability
		All companies focus on improving the knowledge of sustainability and encourage sustainable behaviors primarily from management positions.
Corporate Communication	Internal communication	Main objectives: inform, educate.
		Target audiences: management employees, lower-level employees
		Content: Based on annual integrated or sustainability report, informational content, educational content, inspirational content.
		Channels: Intranet, email (newsletter), town halls, trainings, workshops
		Effectiveness Measurement: employee surveys, tracking reach and engagement, behavior change (e.g., participation in volunteer work, donation, recycling)
	External communication	Main objectives: reinforce brand image, educating (when applied), informing.
		Target audiences: investors, stakeholders, final customers
		Content: Based on annual integrated or sustainability report. Targets and goals reached, association with brand image, what the company is doing regarding selected topics.
		Channels: Report, Mass Media, social media (with a focus on LinkedIn), meetings with politicians and NGOs, product packaging.
		Effectiveness Measurement: market research (benchmarking), brand reputation tracking (online and in

Dimensions Analyzed	Items Evaluated	Findings
		mass media), tracking reach and engagement, behavior change (e.g., sales of sustainable products)
	Communication strategy	The reports are inspired and guided by existing sustainability frameworks and are commonly used not only as a communication and transparency tool, but also as a management tool to guide the information gathering from the diverse sectors of the company. From the sustainability or annual report, the contents were selected and transformed into compelling stories according to the target audience they were aiming at.

7. Holistic Sustainability Communication Framework - SCF

7.1 Introduction

Based on the interviews done with the G100 companies, a sustainability communication framework (SCF) aiming to consolidate the sustainability communication process inside the companies was developed. This chapter describes the framework created after analyzing the online websites and social media of the companies, and gathering the data collected during the interviews. The SCF (*Figure 4*) consists of a step-by-step process that goes from the company management organization to the communication development and evaluation of results.
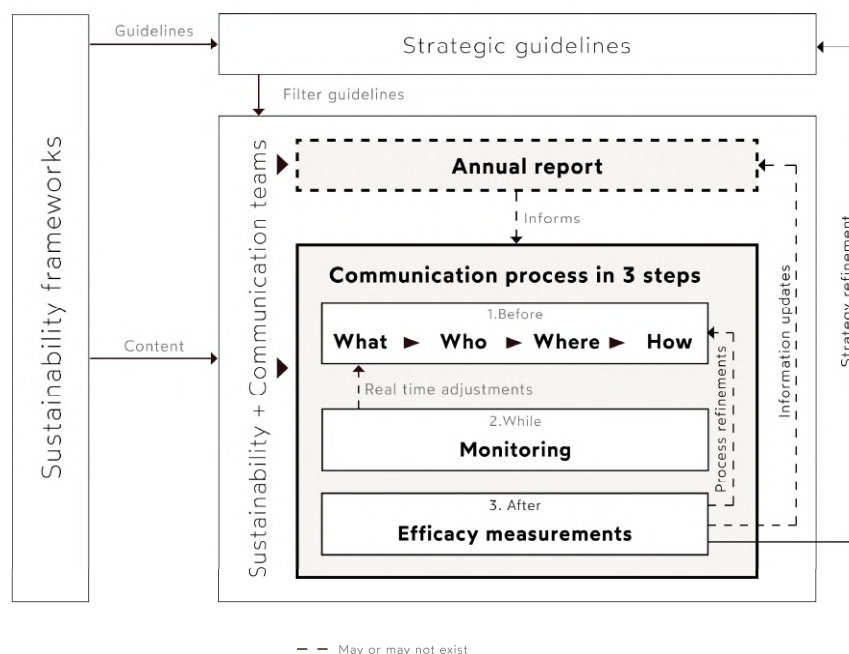
Figure 4 - SCF – 1st version

The framework is divided into three modules. The first module happens outside the company and influences internal definitions, both at a strategic and instrumental level of the company. The second module occurs at the higher levels of the company and refers to strategic guidelines to be defined (or approved) by directors, heads, and chief officers. The third module occurs within the sustainability and communication sectors and refers to an instrumental part of the framework. This is where the communication process takes place.

7.2 The first module – Sustainability Frameworks
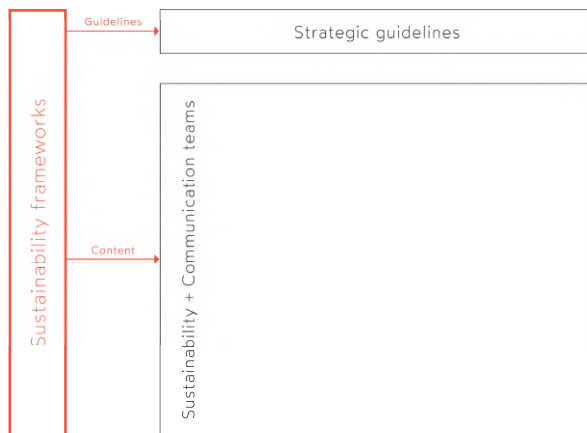
Figure 5 - Schematic SCF Representation with Module 1 highlighted

Based on the interviews, there was evidence of the importance existing sustainability frameworks have on the process of strategy definition and even content definition (e.g. defining what is going to be reported or not from the business practices). This allows us to argue that the sustainability strategy, as aforementioned, is based upon, and even guided, by frameworks and rating companies.

Therefore, the first step of the process of communicating sustainability starts by understanding the sustainability ecosystem outside the company. This step consists of using existing frameworks, such as GRI and SDGs, as guidance for the company management and strategic design. The frameworks are also a compass that will help identify the most important information to be first gathered and then reported.

The most important frameworks mentioned by the companies during the interviews were:

- Global Reporting Initiative – GRI

- Task Force on Climate-related Financial Disclosures – TCFD

- Sustainable Development Goals – SDG

- Dow Jones Sustainable Index – DJSI

- Community Development Program Global Environmental Impact – CDP

- Corporate Knights Global 100 Index

This step is important because it shows a process that starts with the search for guidance on what to prioritize, both at the strategic and at the instrumental level at the company.

7.3 The second module – Strategic Guidelines
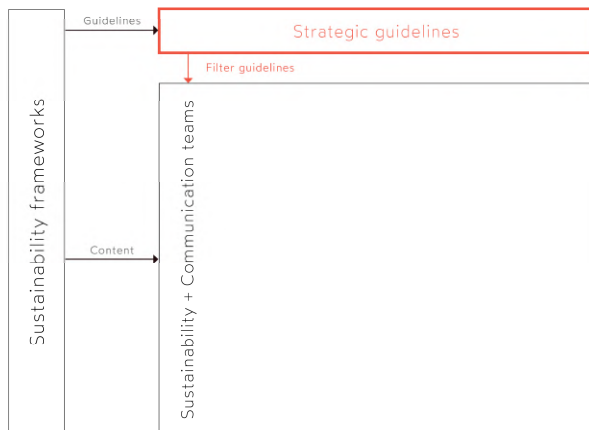
Figure 6 - Schematic SCF Representation with Module 2 highlighted

The existing sustainability frameworks have influence over two sectors inside the company. The first sector influenced is this second module of the proposed framework — the strategic level. The second sector influenced is the third module of the proposed framework – the instrumental level. The strategic level – second step – of the SCF is composed by the higher-level management (heads, directors and chief officers). As aforementioned, during the interviews, all companies mentioned that it is of ultimate importance that the management is aware of, and interested in, sustainability for it to become an important value that influences the business strategic decisions.

Therefore, the second module of the framework consists of the management organizing, defining, and approving the business strategy based on the sustainability frameworks of the first module. It is a top-down effort of first filtering the guidelines from these external frameworks that most relate with their objectives, and later defining what should be produced in terms of content and reports.

This step is critical because it directly influences the companies as a whole by defining shows sustainability at the strategic level, thus having impact both at an organizational and culture level.

7.4 The third module – Instrumental sustainability communication production
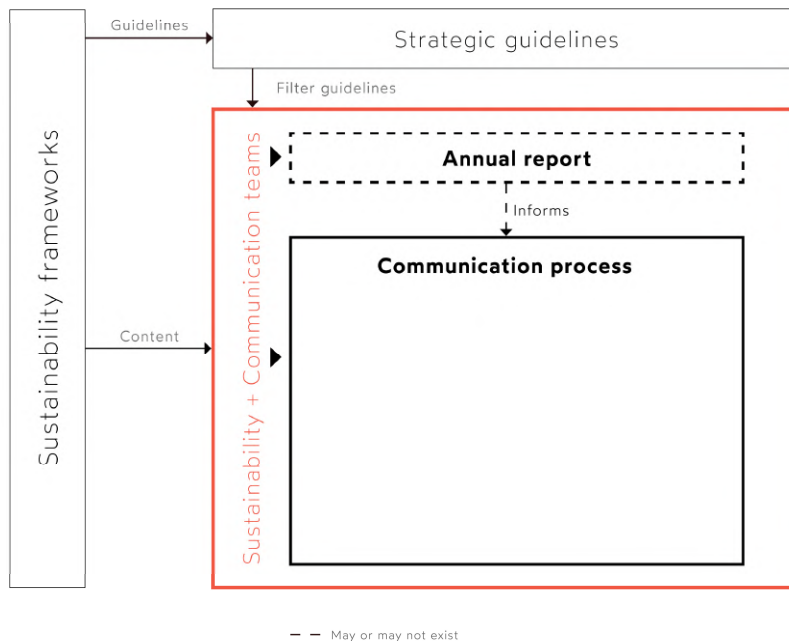
Figure 7 - Schematic SCF Representation with Module 3 highlighted

The existing sustainability frameworks, and the strategic top-down decisions inside the company have a great influence on the third module of the framework, the instrumental level. The last module of the framework happens within sustainability teams and communication teams[22].

Once having the information gathered, filtered, and strategically selected, sustainability teams and communication teams go through two parallel processes.

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22 This organization may differ according to the size of the company. If the business has a bigger quantity of employees and offices it is more likely that the sustainability team is responsible for the strategic part of the communication, definition of objectives and goals. The communication team on the other side becomes responsible to produce the contents. In smaller organizations though, the whole strategy and production may be done only by the sustainability team.

7.4.1 Annual Reporting
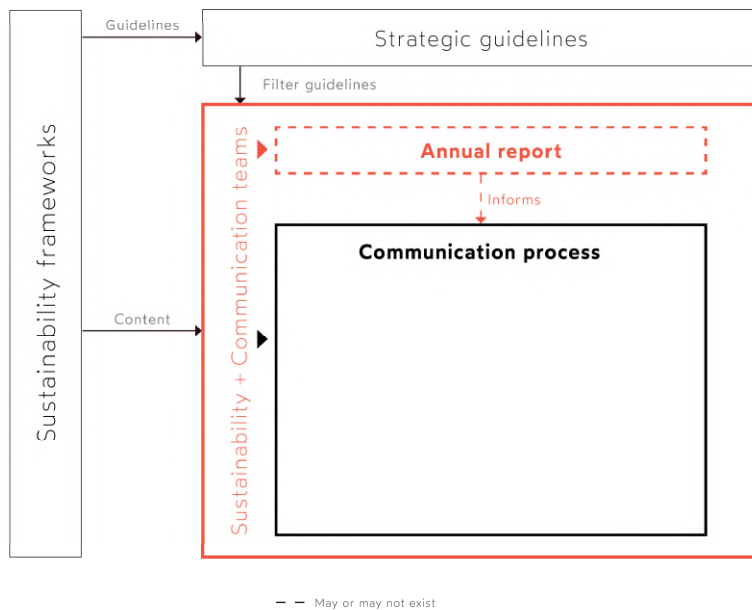
Figure 8 - Schematic SCF Representation with Annual Report, Module 3, highlighted

The first process communication and sustainability teams go through is gathering the information and organizing it in annual sustainability[23] or integrated reports[24]. According to the interviews, most of the year is spent on gathering information and organizing it with the purpose of adding important sustainability information to the sustainability or integrated reports produced by the company. For this reason, the annual report received a highlighted place at the SCF.

Nonetheless, since the sustainability communication framework is a tool developed to be used by other companies that may or may not have a sustainability report, we chose to represent the annual report part of the framework in a dashed line. This way, all the processes and items that are not fundamental for the communication process to be successful are also represented by dashed lines.

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23 Sustainability Reports provide information regarding the activities, aspirations and public image of a company regarding environmental, community, employee and consumer issues (Atağan, 2017).

24 The International Integrated Reporting Council (IIRC) defines integrated reporting as "a process founded on integrated thinking that results in a periodic integrated report by an organization about value creation over time and related communications regarding aspects of value creation." (http://integratedreporting.org/ 10.06.2021)

This step of the SCF is important because these reports are not only the main channels through which the companies aggregate all information related to their sustainability endeavors, but afterwards it is also a source of information to be further produced into content to reach to both internal and external audiences.

7.4.2 Sustainability communication process

The second process communication and sustainability teams go through is the continuous production of sustainability related communication. Based on previous interviews, this process can be organized in three steps: before, during and after communicating.

7.4.2 a) Before Communicating
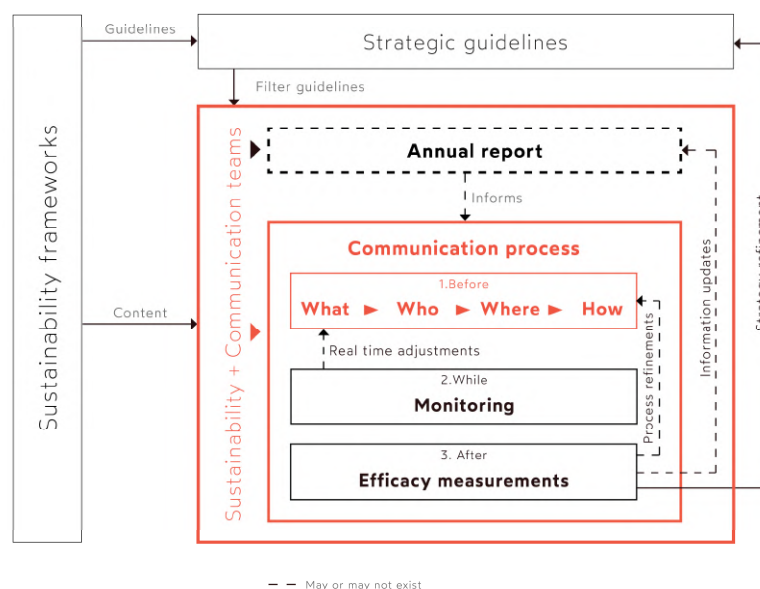
Figure 9 - Schematic SCF Representation with Communication Process, Module 3, Before, highlighted

Before communicating it is important step where teams define four interconnected elements:

- **WHAT -** what the company wants to achieve: the objectives of the communication;

- **WHO -** who the company wants to reach: the target audiences to whom the communication is intended;

- **WHERE -** where the communication will be distributed: the channels and tools used to communicate and;

- **HOW -** how the message will be transmitted the format of the communication.

7.4.2 a) i. What you want to achieve

In the communication process, the first fundamental step before starting to communicate is the definition of objectives. This element is important in order to clearly establish the objectives aimed with each piece of content and how to measure whether the predetermined objectives were fulfilled or not. As previously mentioned, it is of common knowledge that, although most report favorable attitudes toward pro-environmental behaviors, stakeholders often do not subsequently display sustainable actions. Moreover, defining objectives prior to communicating can structure actions in order to fulfill business strategic goals (e.g., increase legitimacy, reinforce image, improve reputation). This is why marketing, and behavioral science can inform CSR communication on how to deploy strategies to best influence audiences to be more sustainable (White et al., 2019).

According to the interviews, the three major objectives of G100 businesses regarding communication are:

- when needed, to educate their employees or their customers about the definition and importance of sustainability within the context of the company;

- to inform their stakeholders and increase transparency regarding their processes;

- to reinforce the brand image as a highly sustainable company.

Even when the companies mentioned other goals they wanted to achieve, it was possible to notice that these goals could be incorporated within one or more of these three major objectives aforementioned. Therefore, to educate, to inform, and to reinforce brand images were considered the three major objectives where other more specific goals belong to. The most recurrently specific goals mentioned by the companies are as follows:

- Share stories

- Reinforce brand image

- Inform regarding targets and goals reached

- Inform about what company is doing

- Educate

- Establish dialogue

- Product/Service Sells

Taking into consideration the three main objectives, a VENN diagram (Figure 10) was created to distribute what companies mentioned as their communication goals within these three main objectives.
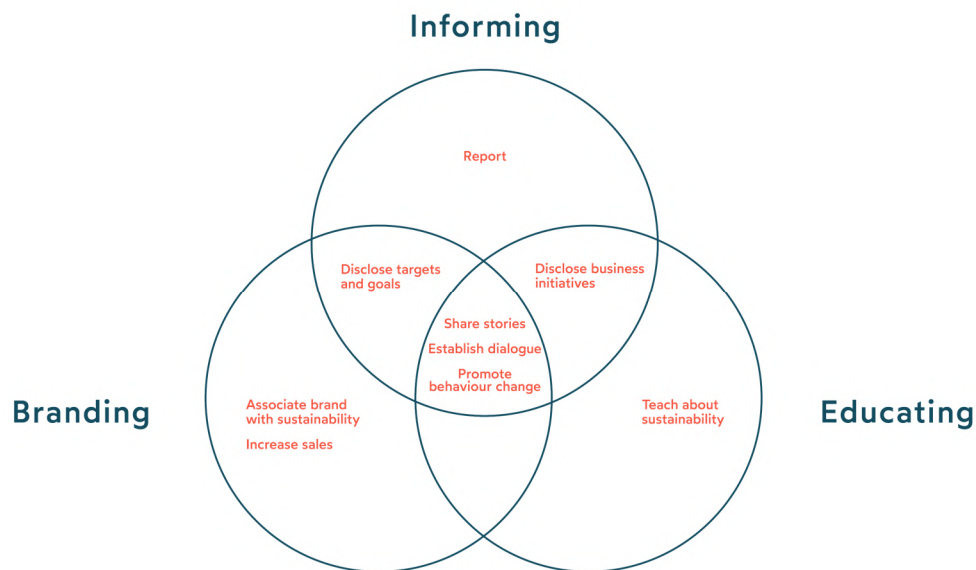
Figure 10 - What do you want to achieve

7.4.2 a) ii. Who do you want to talk to

In the communication process, the second fundamental element before starting to communicate is the definition of target audiences. This step is important to establish who are the target audiences that needs to be reached in order to achieve the already established goals. This element is important as it precedes and influences the next step — the definition of which channels best to use. As previously mentioned in chapter 3, for achieving a maximum result with minimal effort, a strategic approach to communication planning has consider the relation between the target audience's segmentation, the selection of transmission channels, and the objectives of the communication (Bucur & Petra, 2011). Since the purpose of any company is to create and distribute increased wealth and value to all its stakeholders, without favoring one group (e.g. shareholders) at the

expense of others (e.g. society and collaborators), choosing channels and tools used to communicate allows to reach each different stakeholder.

During the interviews it was possible to understand that companies did have different objectives depending on which were their target audience. In other words, we understood how selecting a specific WHAT exerted influence on who the WHO would be. For example, when the WHAT was to educate, the WHO were internal audiences, meaning, by selecting to educate as an objective the target-audience is also set to internal collaborators[25.]

At an external level, however, when the WHO was composed of investors, the WHAT would be mostly to inform and the HOW would be through reports. On the other side, when the WHO were customers and society, the WHAT was mostly to reinforce their brand image regarding sustainability topics. And the WHAT was to increase the information and transparency levels, all businesses related its importance to the WHO comprised of all stakeholders, both inside and outside the company.

The most recurrently mentioned target-audiences were as follows:

- Lower-level collaborators

- High-level collaborators

- Heads, directors, chief officers

- Investors

- Customers

- Suppliers

- Government

- NGOs

- Society

- Universities

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25 Higher-level employees tended to be focused, since they would serve as role model to their subordinates. Nonetheless, independent of the level of the collaborator, a goal that appeared attached to the internal communication was educating about sustainability.

Therefore, based on the interviews, their main target audiences were also divided in the format of a VENN diagram (Figure 11) according to the three main objectives previously mentioned.
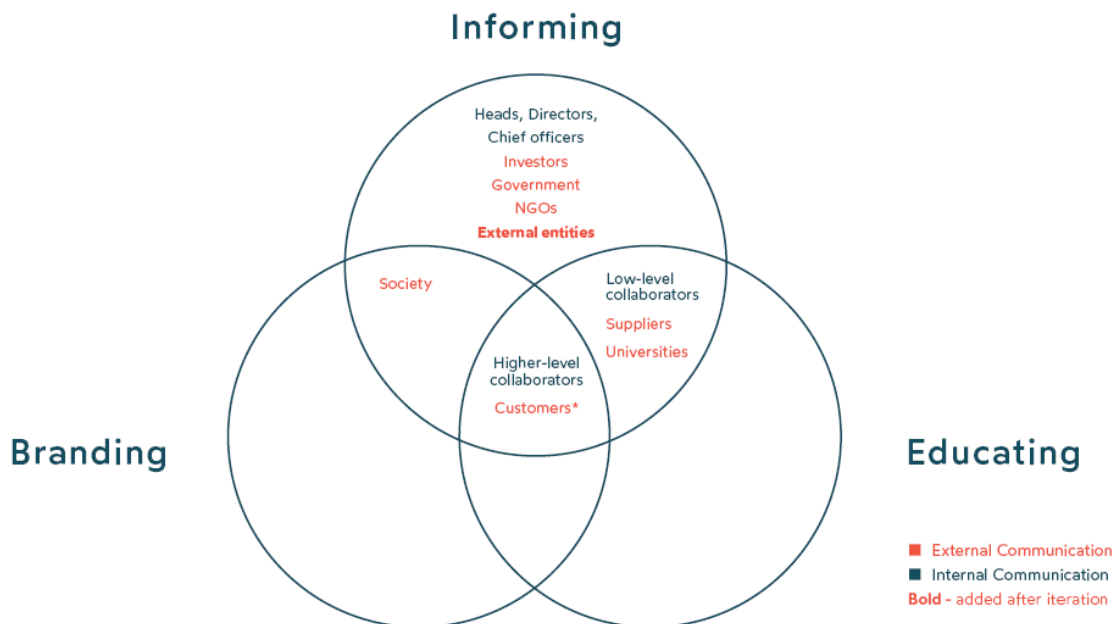
Figure 11 - Who do you want to talk to

None of the WHOs mentioned were associated with only one of the macro objectives of simply reinforcing the brand image or educating in WHAT. Therefore, most of the WHOs were placed in intersections of the macro objectives, the only exception being to informing, since this is a key WHAT to specific WHOs.

7.4.2 a) iii. Where is the best place to communicate

The third fundamental element before starting to communicate is to define the channels. This step is important to have clear WHERE is the best place to put that content in order to reach the predefined WHO and to fulfill the WHAT. AS aforementioned, the definition of the target audiences (WHO) comes hand to hand with the definition of tools and channels (WHERE), since modern consumers need broadly available information, anytime and anywhere and traditionally used tools may not be the most adequate, or even enough to pass on the sustainability message across all target audiences.

Similarly to the objectives and target audiences, it was possible to observe that the channels used to communicate could reach one or more of the predefined target audiences, depending on the objectives established. Also, the most recurrently mentioned channels used by the companies to communicate sustainability topics were as follows:

- Intranet

- Lectures/Workshops

- Townhalls

- Mailing (Newsletter)

- Social media

- Company website

- Mass media

- Participation in roundtables

- Social gatherings

- NGO / Political meetings

- Product packaging

Therefore, similarly to the communication objectives and target audiences, the communication channels were also divided in a VENN diagram (Figure 12) according to the three main objectives determined.

Townhalls
NGO/Political gatherings

Social media
Social gatherings
Mass media

Newsletter
Intranet

Website

Workshops

Roundtables
Product
packaging

Informing

Branding

Educating
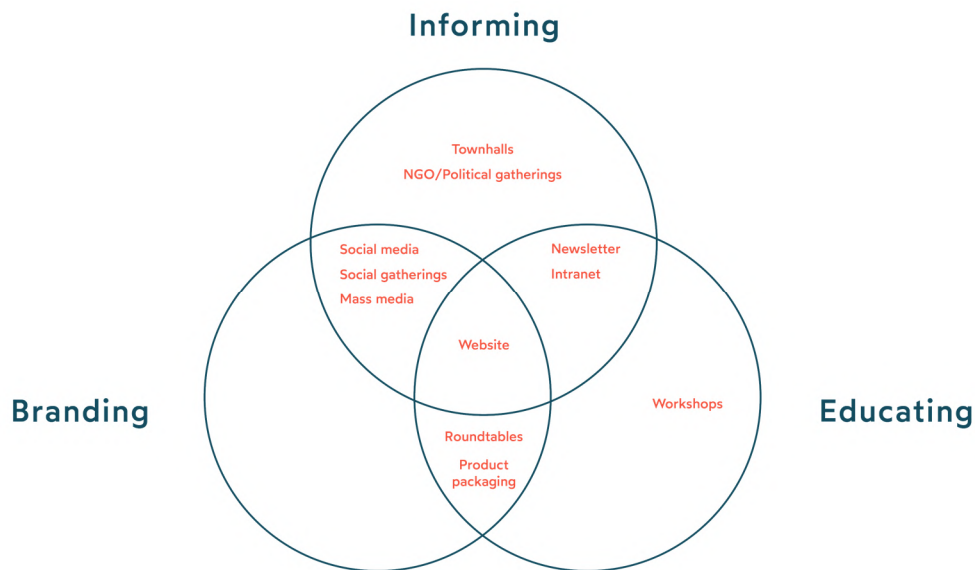
Figure 12 - Where is the best place to communicate

7.4.2.a) iv. How do you want to communicate

In the communication process, the fourth fundamental element before starting to communicate is the definition of content format. This element is important to determine HOW to best to build the content for the specific channel (WHERE) through which we want to reach our audience (WHO) for the objectives (WHAT) we set out from the beginning.

Regarding format, we used previous literature, as well as the websites and social media analysis, to list the most important general formats of communication produced, which are:

- Text

- Video

- Image

- Infographics

7.4.2.a) v. WHAT, WHO, WHERE, HOW: putting it all to work

Once defined these four items: communication objectives, target audiences, channels and formats, the content is created. The definition of objectives (WHAT) determines WHO it is most important to talk to. Once established the key target audiences (WHO), the tools and channels (WHERE) are selected.

One example is, with the objective of informing (WHAT) about targets and goals reached to the shareholders (WHO) the information is put in a quarterly report (WHERE) with texts, images and infographics to illustrate the results (HOW).

Another example is, with the objective of changing behaviors into choosing sustainable products (WHAT), we put information to customers (WHO) regarding the sustainable value of a product in a product packaging (WHERE), with texts and graphics (HOW) to facilitate the understanding.

7.4.2 b) While communicating

While communicating it is important to monitor for results. This monitoring, depending on the channels defined, can be conducted both online or offline (Figure 17). The monitoring allows teams to adjust and reiterate decisions previously taken in the previous stage.. Monitoring for results allows the communication and sustainability teams to adjust in real time contents that were planned and produced (HOW), and redefine, if necessary, the WHAT, WHO, and WHERE.
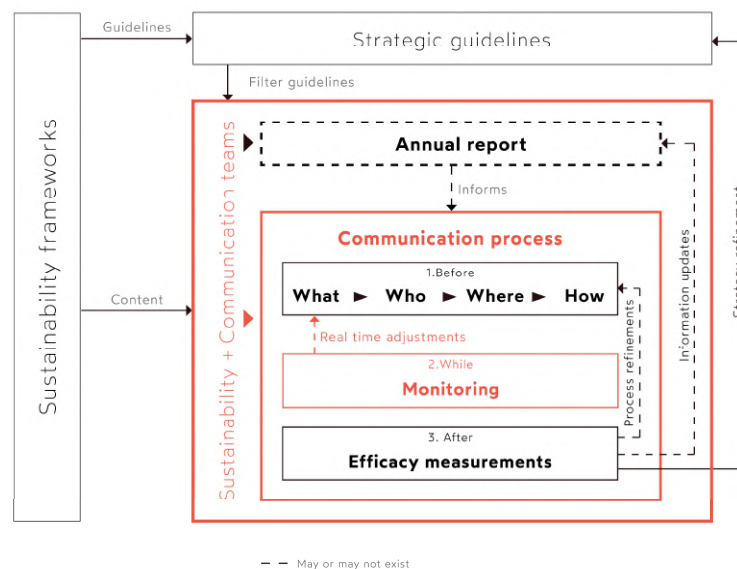
Figure 13 - Schematic SCF Representation with Communication Process, Module 3, While, highlighted

When communicating online, the monitoring measures mentioned by the companies can be summed up as:

- tracking engagement;

- reach;

- interactions;

- time spent on blog post or social media post;

- views.

As for offline communication companies mentioned:

- monitoring engagement;

- adhesion to initiatives and campaigns;

- behavior change towards more sustainable practices.

Monitoring results is important because it allows the communication and sustainability teams to adjust in real time contents that were planned and produced and redefine, if necessary, objectives, audiences, and channels to distribute this content.

7.4.2.c) After Communicating
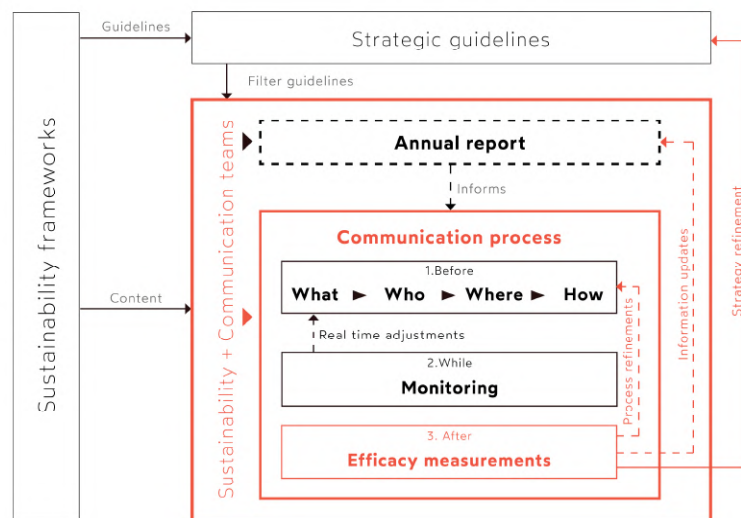
Figure 144 - Schematic SCF Representation with Communication Process, Module 3, After, highlighted

After the content has been disseminated, usually with a periodicity predefined by the company, extensive measurement actions are taken to see if the initial objectives have been achieved, namely, to educate, to inform or to reinforce the brand image.

These final assessments then serve as a compass for adjusting strategic objectives and for understanding the effectiveness of communication actions.

Each of the contents goes through an evaluation process consisting of tracking reach, engagement, marketing research, tracking brand reputation, and behavior change (e.g., sales of sustainable products or services, volunteer work, donation). The most commonly mentioned tools for measuring the efficacy of communication were:

- Reputation Tracks
- Specialized Reports
- Sales Results
- Internal Marketing Research
- External Marketing Research

These final assessments then serve as a compass for adjusting sustainability strategic objectives and for understanding the effectiveness of communication actions.

8. Framework validation

8.1 Introduction

To validate, and iterate, the proposed SCF, two interviews were performed with two different companies that are not in the Global 100 Index. Two Portuguese companies were chosen since the research was performed in a Portuguese university. Moreover, the goal was to reach companies outside the first ones used to delineate the framework, since the objective was to validate and iterate the framework in order for it to be broadly used by companies without the first scope of the study. Finally, the chosen companies have a proven track with sustainability, being participants of the GRI and having non-financial reports produced. This choice was made because, although the goal was to reach companies outside the Global 100 so they could give valuable insight regarding the SCF, for the feedback to add more value to the first framework developed, the companies interviewed must have had some level of familiarity with the research topic. Similarly to the Global 100 companies, we interviewed collaborators from both the strategic area inside the sustainability team and the communication sector.

Table 8 – *List of interviewed companies outside the Global 100 Index*

Code	Nº of employees	Segment	Title
I13	53.794	Retail	Sustainability Specialist
I14	885	Real Estate	Brand & Services Communication Manager | Sustainability Communication Services Manager

The validation process was composed of two stages, first before the framework was finished by applying the same interview protocol as described in chapter 4.3, with the purpose of comparing the processes of communication in companies within and without the G100. Similarly, to the process made with the G100, the interviews were then separated according to the areas of the study defined during the methodology (corporate strategy, corporate structure, corporate culture, behavior and corporate communication) and according to similarities and differences between the two companies and the other 12 previously interviewed.

The second stage of the validation consisted of another interview, after the SCF was designed. This interview was made with the objective to validate the assumptions of the SCF previously developed.

8.2 Findings after interviews with companies outside G100

After the first interview performed with the companies outside the Global 100 companies it was possible to notice some similarities and differences regarding corporate strategy, corporate structure, corporate culture, behavior and corporate communication. The findings were summarized in a table format (Table 9). At Appendix V it is possible to find the in-depth discussion of the interviews made with the companies.

Table 9 - *Findings after interviews with companies outside G100*

Dimensions Analyzed	Similarities	Divergences
Corporate Strategy	Sustainability is a part of their business DNA Both companies mentioned sustainability as a fundamental part of the business strategy and said that the business strategic decisions always considered sustainability as an important topic.	The two companies outside the Global 100 did not mention a strong focus on reporting according to several different preexisting sustainability frameworks. They mentioned only two main frameworks used, the GRI and the SDGs.
Corporate Structure	The organization of the companies outside the Global 100 was similar to the ones within the index	
Corporate culture	Both companies said the idea of sustainability is intrinsic to the business DNA. I13 disclosed the difficulty to reach all levels of employees within the company, confirming the previously identified argument that showed a focus on higher level employees, within Global 100 companies	I14 disclosed that their concept of sustainability is not the one of TBL, but the creating shared value (CSV)
Behavior	Employees engage in sustainability initiatives, mostly in social activities, specifically related to volunteer time. Employees are not aware of all the initiatives the company does regarding sustainability, because there are many initiatives happening across the company (and its subsidiaries).	Companies did not disclose benefits for employees to engage in sustainability initiatives.
Corporate Communication	There were similarities regarding objectives, channels and target audiences I14 mentioned having a focus on measuring the sustainability impact and, also, having specific communication measures	The communication processes in I13 seemed less structured and more intuitive than in the Global 100 companies. I13 did not mention effectiveness measurements in the longer-term regarding brand perception, education and information.

8.3 Hypothesis

After the first interviews were made with all 14 companies, the SCF was refined and more specifically defined in detail.

In order to test the SCF, twenty hypotheses were listed according to each one of the modules developed and previously described in chapter 7. These hypotheses were then tested during interviews made with both companies, I13 and I14, allowing for a new, and more accurate, iteration of the SCF.

8.3.1 First Module - Sustainability frameworks

Regarding the first module of the communication framework, the preexisting sustainability frameworks, three items were tested:

- the frameworks listed;

- the influence the frameworks have on sustainability strategies;

- the influence the frameworks have on content creation .

To test these items, three hypothesis were created:

H1. The existing sustainability frameworks listed are the most important ones;

H2. The existing sustainability frameworks are used as guidelines for the management to define the company's strategic guidelines;

H3. The existing sustainability frameworks provide content ideas for the sustainability and communication teams;

8.3.2 Second Module - Strategic guidelines

Regarding the second module of the SCF, strategic definitions, the hypothesis whether the management, and higher positions of the company, used the frameworks as guides and subsequently filtered the orientations in order to create a compass for the sustainability and communication teams to develop contents and annual reports. To test this assumption, the following hypothesis was created:

H4. The strategically filtered guidelines provide a specific compass for the sustainability and communication teams to produce the annual report (when applicable) and for other internal and external communication;

8.3.3 Third Module – Instrumental sustainability communication production

8.3.3 a) Annual report

Regarding the third module of the SCF, tactic level of the communication production, the hypotheses were divided according to the sections within the module, namely the annual report, before, while and after communicating. The first hypothesis to be tested regards the assumption that the annual report and the communication production are two parallel processes developed by the sustainability and communication teams. The second concerns whether the annual reports are used as the main source for contents to be produced internally and externally. To test these assumptions, the following hypothesis were created:

H5. The annual report and the communication process are two parallel processes developed by the communication and sustainability teams;

H6. The annual report (when existent) is the main source for contents to be produced internally and externally;

8.3.3 b) Before communicating

Regarding the third module of the SCF, that is the tactic level of the communication production, the hypotheses were divided according to the sections within the module, namely the steps before, while and after communicating. Before communicating the hypothesis were divided according to the elements WHAT, WHO, WHERE, HOW.

8.3.3 b) i. WHAT

Regarding the communication objectives, three assumptions were tested:

- the main objectives;
- the micro-objectives;
- the correlation of the micro objectives within the macro objectives.

To test these assumptions, the following hypothesis were created:

H7. The three main objectives listed are the most important;

H8. The micro-objectives listed are important;

H9. The correlation between main and micro-objectives is valid;

8.3.3 b) ii. WHO

Regarding the communication target audiences, two assumptions were tested:

- the main target audiences definition;

- the correlation of the target audiences with the macro-objectives.

To test these assumptions, the following hypothesis were created:

H10. The target audiences listed are the most important;

H11. The correlation between the target audiences and the macro objectives is valid;

8.3.3 b) iii. WHERE

Regarding the communication channels, two assumptions were tested:

- the main channels definition;

- the correlation of the channels within the macro-objectives.

To test these assumptions, the following hypothesis were created:

H12. The channels listed are the most important;

H13. The correlation between the channels and the macro-objectives is valid;

8.3.3 b) iv. HOW

Regarding the communication formats, the assumption tested was whether the formats listed were the main ones. To test this assumption, the following hypothesis was created:

H14. The formats listed are the most important;

8.3.3.c) While Communicating

Regarding the step while communicating within the third module of the SCF, the tactic level of the communication production, two assumptions were tested. They were:

- the listing of online and offline measures;

- the results of the monitoring allowed real time adjustments.

To test these assumptions, the following hypothesis were created:

H15. The online and offline monitoring measures are the most important ones;

H16. Monitoring communication provide the opportunity to produce real time adjustments on the objectives, target audiences, channels, and formats;

8.3.3.d) After Communicating

Regarding the step after communicating within the third module of the SCF, the tactic level of the communication production, four assumptions were tested:

- the list of efficacy measures;

- the influence of the efficacy measures in the communication process;

- the influence of the efficacy measures on the annual report;

- the influence of the efficacy measures on the strategy delineation;

To test these assumptions, the following hypothesis were created:

H17. The efficacy measures listed are practiced by the company;

H18. The efficacy measures listed may influence the content planning before content production

H19. The efficacy measures listed may influence the annual report contents;

H20. The efficacy measures listed influence the strategic decisions refinement;

8.4 Findings after SCF iteration

The framework validation allowed us to refine and redesign the SCF according to whether or not the hypotheses were validated by these two companies outside the Global 100 Index. This iterative process was developed as an interview format where the construction of the framework was explained step by step, according to each of the modules. While each module was explained, the hypotheses were put as questions in order to be validated by the interviewed.

The findings were organized in a table format in order to summarize the discussion performed during the interviews. The in-depth discussion can be found in Appendix VI. In Table 10 there is a summary of the most relevant findings.

Table 10 - *Findings after second iteration*

Hypotheses	Findings
H1.	Confirmed, with observations. CDP, GRI, TCFD and SDG were considered as important frameworks followed by the companies. Corporate Knights and DJSI were not considered important by both companies interviewed. I13 mentioned that this year they are starting to use Sustainability Accounting Standards Board (SASB) as well as the aforementioned sustainability frameworks. I14 mentioned the use of the International Integrated Reporting Council (IIRC) for the design and definitions of their reporting.
H2.	Tested and confirmed without observations
H3.	Confirmed, with observations: I13 and I 14 said they normally do not use the frameworks directly as sources to produce contents internally to the collaborators, nor externally to other stakeholders
H4	Confirmed, with observations: According to I13, not everything that is defined on the strategic level is disclosed in content formats and in reports
H5.	Tested and confirmed without observations
H6.	Confirmed, with observations.: I14 does not use the report as a main source. They have a separate communication plan, only to create content inspired by the report
H7.	Confirmed, with observations: For I14 their main objectives defined for the communication are: "comprehension, support and strength and engage", I14.
H8.	Confirmed, with observations: Sales increase, in I13 and I14 case, is not considered a micro-objective but a consequence of the brand and positioning; According to I14, promoting behavior change is also an important micro-objective.
H9.	Tested and confirmed without observations by I13; Does not apply to I14
H10.	Confirmed, with observations:I14 explained they do not separate collaborators according to their level in the company.
H11.	Tested and confirmed without observations.
H12.	Confirmed, with observations: According to I13, product packaging is more than just a branding channel, it is considered to be an educational channel as well, especially for customers to be confronted with sustainability concepts through them
H13.	Tested and confirmed without observations.
H14.	Confirmed, with observations: Despite the SCF list of formats being considered sufficient, links were also mentioned as an important format in online content development. I14 said they specify more thoroughly the how
H15.	Confirmed, with observations: I14 would add more items such as downloads, clicks, source, email opening, sharing, number of participants, satisfaction with content
H16.	Confirmed, with observations: I13 said they are not yet able to monitor behavior change
H17.	Confirmed, with observations: I14 mentioned that the most important efficacy measurement is whether the communication allowed the strategically defined sustainability objectives to be reached or not. Moreover, they said they would put behavior change in efficacy measures
H18.	Tested and confirmed without comments

Hypotheses	Findings
H19.	Tested and confirmed without comments
H20.	Tested and confirmed without comments

8.5 Decisions

After the interviews some decisions and adjustments were made in the final sustainability framework developed. Based on the answers to the hypothesis, although they mentioned different practices at H1, the decision was to keep the current list of important frameworks, since the other 12 companies interviewed did not mention these other frameworks.

Considering the responses to H3, the second change was to transform the arrow that went from the first to the third module in a hashed line, meaning that the companies may or may not use the sustainability frameworks as a direct source for content definition and creation.
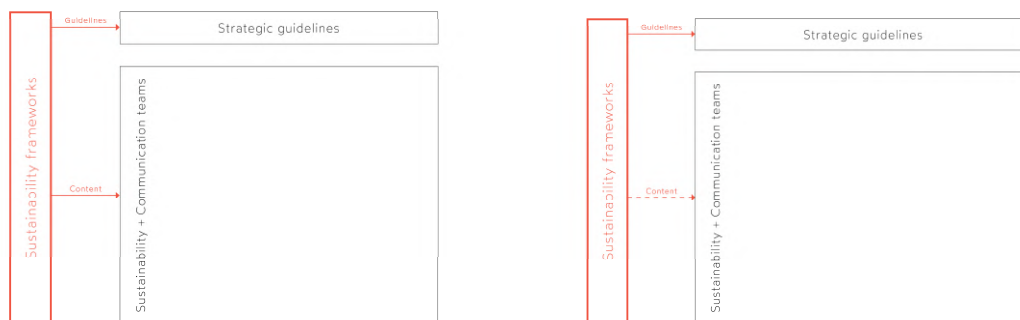
Figure 15 - First module before iteration and after iteration - Dashed arrow

From the observation made to H6, the decision was to reorganize the framework, showing the communication process before the annual report. This way, despite being parallel processes, the annual report does not come before, or has a higher importance, than the production process of other communication contents.
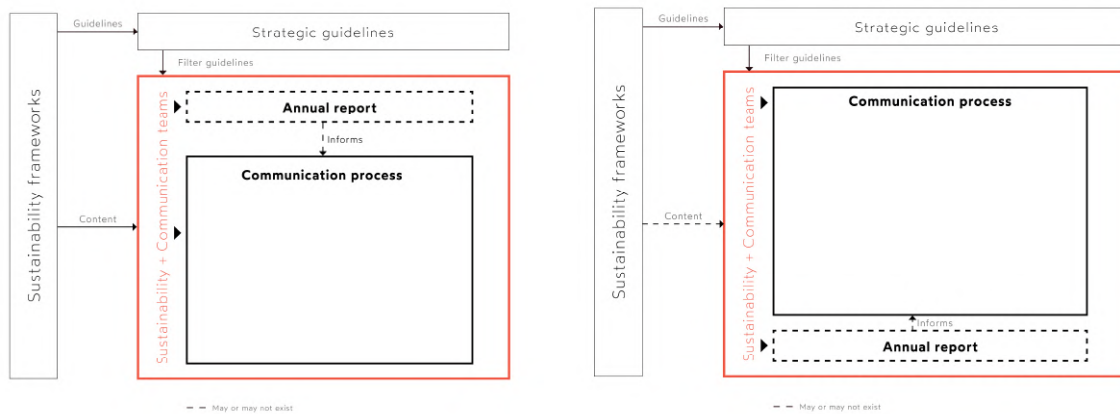
Figure 16 - Third module before iteration and after iteration - Annual report placement

Despite the comments made to H7, the three main objectives were kept unaltered, since as I14 mentioned, the whole communication process in their case, happens differently, therefore the decision was not to change the framework based solely on one company.

Despite the observations made to H8, regarding sales not being an objective itself, the decision was to keep sales as an objective. Nonetheless, promoting behavior change was added as a central micro-objective since the companies that are sustainable promote the adoption of more sustainable practices both to their internal and their external stakeholders.

Despite the observation made to H10 by I14 where they did not differentiate between collaborator level, the decision was to keep this division, since a common trend in companies with a higher number of employees was the difficulty to produce content for, and dialogue with, employees at all levels simultaneously. Nonetheless external entities were listed as important target audiences.

According to the observation made to H12, another modification was made on the SCF. Product packaging was added to the intersection between branding and educating, given that the package itself may be an effective, thus important, channel to communicate with the final customer.

Regarding H15, number of participants, satisfaction, downloads, email openings, clicks, source and sharing were added as important measurement tools.
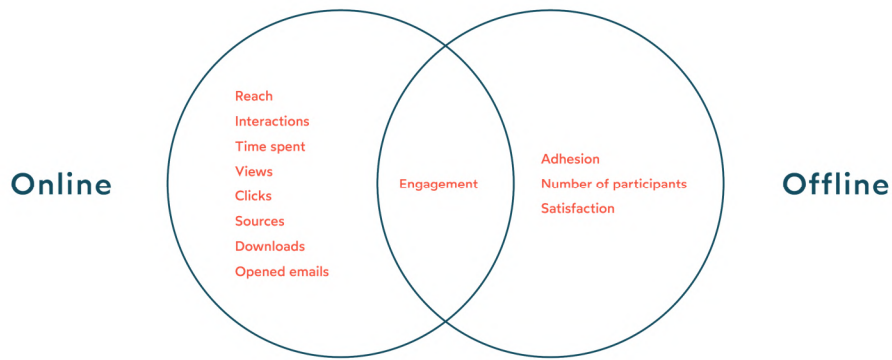
Figure 17 - Monitoring Results

Regarding H17, reaching previously established sustainability goals and behavior change were added to efficacy measurements. Moreover, an arrow that comes from strategic guidelines to efficacy measures was added, representing the importance the strategy has on defining what are the targets and goals to be measured and evaluated.
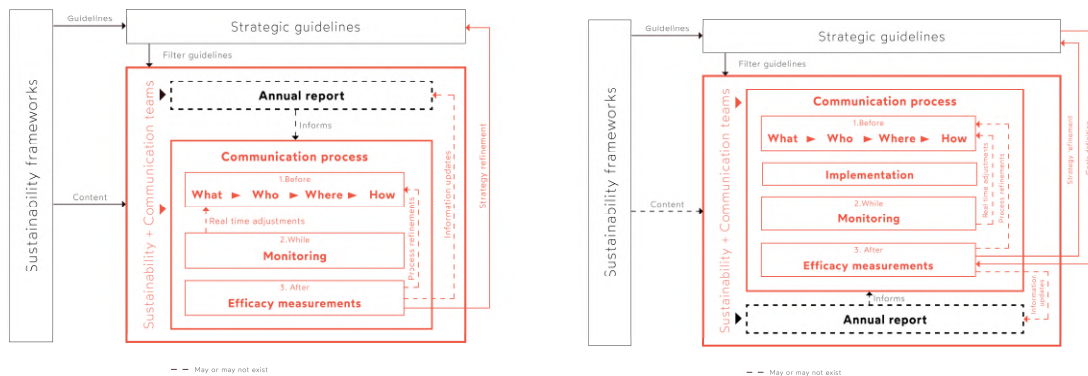
Figure 18 - SCF before iteration and after iteration - arrows

Finally, regarding a general comment, the implementation step was added to the SCF, to be clear that this step exists between planning and monitoring.

8.6 SCF - Second Version

After the modifications were implemented, the second iteration, and for the purpose of this dissertation the final design, was defined as follows.

The basic structure from the first iteration was kept, with the division in three modules. The arrow that goes from the first module (sustainability frameworks) to the third module (communication teams) was hashed in order to reflect how this is a may or may not happen dependence.

The annual report was placed under the communication process, to show it does not necessarily come before it, but happens in parallel. Moreover, the annual report is hashed because the goal is for the framework to be used even by companies that may not have the annual report practice within the company.

An arrow that goes from the second module (strategic guidelines) to efficacy measurements in the third module was added to reinforce the importance of strategic objectives on defining what is to be measured and what goals must be reached.
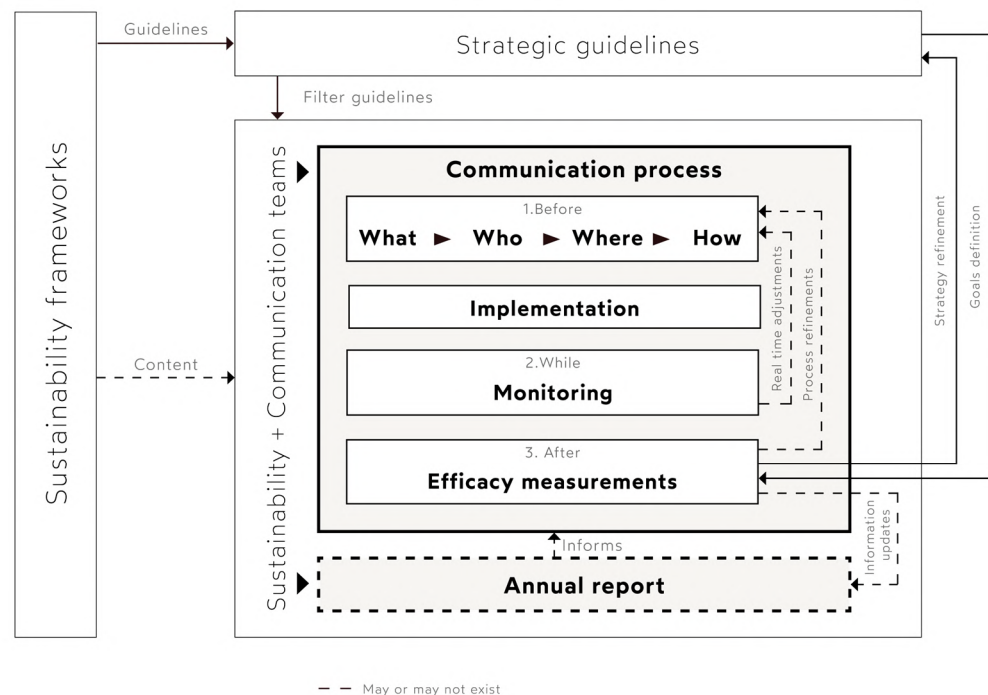
Figure 19 - SCF – 2nd version

9. Discussion

The present research had two objectives:

1. to map out the best practices used to communicate sustainability values and activities in MNCs considered 'sustainable' by the Corporate Knights Global 100 Index
2. to propose a holistic framework design to standardize the process of communicating sustainability activities and values, test the proposed framework, and iterate if needed;

The final purpose of this study was to develop a useful holistic SCF based on practices observed and analyzed in G100 companies.

In order to fulfill these objectives, two research questions were put:

R.Q.1 What are the processes, target audiences, channels and contents used by the Global 100 Index to communicate sustainability actions and values to their various stakeholders?

R.Q.2 Is it possible to develop a framework that structures the sustainability communication process based on MNCs perceived as 'highly sustainable' by the Global 100 Index?

R.Q.1 was successfully answered from the data gathering part of the study until the finalization of the interviews with the companies. The data gathering showed that, although all companies have highly sustainable practices, not all of them use broadly available tools to communicate their practices online. This is in concordance with Siano et al., (2016) and Lodhia & Stone (2017), in specific with how Internet-based technologies play a critical role in facilitating the external communication aspect of integrated reporting.

Different from previous studies that showed that corporations were likely unwilling to engage with publics in an effort to minimize public criticism (Cho et al., 2017), this study showed that Global 100 companies are not only willing to engage with publics, they use multiple channels to do so.

Nonetheless, unlike what is argued by Lodhia & Stone (2017), not all companies appear to take advantage of timely communication of existing and future oriented information for the decision-making of their stakeholders, enhanced presentation, organization and connectivity of information, enriched communication formats that convey multiple cues to increase stakeholder understanding and personalizing information to match different stakeholders' increasingly broad-ranging information. Data gathering also showed an increased tendency of availability of annual

reports on corporate websites, which demonstrated an increasing trend to disclose non-financial information and make it available to all stakeholders, internal and external.

Social media analysis showed a prevalence of LinkedIn and Facebook profiles and number of followers in both social medias. This shows the increasing importance of social networks as a channel to communicate brand meaning, inform, attract talented candidates and establish an online community. The social media use as a tool to communicate brand image, increase interactivity and inform their community regarding the business sustainability practices has been studied and proven as an important strategy by several previous studies (S. Kim et al., 2014; Kissel & Buttgen, 2015; Y. C. Lee, 2017; Lodhia et al., 2020).

Although this research did not have a content approach to social media usage, it was shown that, among G100 companies, not all of them are using social media platforms as potential channels to connect with the public, exception being for LinkedIn. This shows a preference for the corporations to keep profiles on professional social media, rather than private ones. From this it can be inferred that there is a focus groups of stakeholders that are also users of these professional social media platforms (Pongpaew et al., 2017). However, caution should be exercised so that sustainability communication via social media is informative and not merely a public relations exercise (Lodhia, 2018).

During the interviews it was possible to notice common trends among different companies within the Global 100 Index regarding strategy, structure, behavior, culture, and communication inside the companies. All companies interviewed declared sustainability as a core value inside the business and, moreover, seeking to express this through their communication practices.

Similar to previous research, the interviews showed that, in order for sustainability to be seen as a strategic value, it is necessary for the higher-level decision makers within the organization to establish a reporting routine. Therefore, the increase of CSR information in corporate communication, appears to be a response to an identified need (Arvidsson, 2010).

With increasing awareness to sustainability topics and to the disclosure of non-financial information, the use of strategic tools to produce content so that the multitude of stakeholders are allowed different interpretations that contribute to the message the company wants to express is fundamental (Scandelius & Cohen, 2016).

R.Q.1, therefore, is answered by the encounter of similarities among not only the evidence found in the websites and social media of companies studied, but also by cross comparing responses

during the interview process. It was possible to see similarities regarding the communication process and strategy, objectives, target audiences, tools and channels, and formats.

R.Q.2 is answered by the creation and validation of the SCF, which emerged as a useful tool for business to communicate in a way to adapt, and change, according to shifting stakeholder expectations, and also to influence those expectations (Morsing & Schultz, 2006). Since CSR communication today is more of a proactive approach focused at preventing legitimacy concerns to arise (Arvidsson, 2010), the SCF appears as an important tool to allow for the organization of the communication process in a structured modules of a logical system..

The interviews allowed the SCF to be developed, and later improved, creating a tool, inspired in practices developed by highly sustainable companies, to be adopted by other companies that would like to implement consistent sustainability communication.

The division of the framework allows to perceive the importance of a well-defined integrated strategic process, aware of practices and demands outside the company, and how they influence not only the communication, but also the business strategy and management practices. Previous frameworks developed worked on specific processes within the companies (Burroughs, 2010; Eriksson, 2017; Maher, Maher, Mann, et al., 2018; Siano et al., 2016), and the holistic SCF, therefore, a complementary tool to be used in combination with others. The added value of this SCF is its focus on organizing, and systematizing, the overall sustainability communication process.

Cross combining the existing literature with data analysis and interviews allowed for the development of a useful SCF, anchored in real world practices and confirmed by existing research. The SCF considers the importance of existing frameworks and uses them as guidance for internal management and communication processes (Ihlen et al., 2011; Masud et al., 2019; Tsalis et al., 2018). It considers the existence, and importance, of extensively involving, and communicating with stakeholders directly in a joint construction of sustainability communication (Morsing & Schultz, 2006). The proposed SCF also considers the importance of using multiple channels for sustainability communication, such as the company website, social media, the reports and others (Gori et al., 2020; Jianu et al., 2016a; Lodhia, 2012, 2018; Lodhia et al., 2020; Reilly & Larya, 2018).

10. Limitations of the Study and Future Research

This study has several limitations, regarding the objectives of analysis and the focus of the dissertation. The first limitation is concerning the website analysis. Although all websites were scanned to find text, images, videos, and infographics about sustainability, the specific content of these formats was not thoroughly analyzed. Moreover, although the presence of reports and disclosure about SDGs was also calculated in order to consider transparency, and consistency, about the content available online, the reports themselves have not been read and interpreted in-depth.

The second limitation on the analysis part of this study relates to social media. Due to limitations specific to social media analysis, it was not possible to filter whether there was sustainability-related content produced within social media pages and dedicated to each one of the social media analyzed. Therefore, the social media presence was merely observed and calculated to further understand audience-focused digital content and the potential breadth of social media content produced by G100 companies.

Regarding the interviews, this study focused on the communication processes and perceptions through the eyes of the companies responsible for either communication or sustainability strategy. The perception of stakeholders was not taken into consideration for this analysis, neither public opinion nor general employees opinions about the companies that were analyzed were considered for the development of the SCF. Moreover, during the iteration part, only two Portuguese companies were contacted for testing and improving the SCF, leaving space for further testing and improvement of the framework.

Finally, the study aimed to understand the process of sustainability communication of highly sustainable companies according to the Corporate Knights Global 100 Index. Therefore, companies considered 'sustainable' according to other indexes may not have been included in this study due to the initial definition of the study objects.

After the development of this research, suggestions for further studies are: 1.To apply the OSEC in its entirety to all G100 websites and deepen the evaluation of the online content produced; 2. To analyze G100 social media profiles from a content analysis perspective; 3. To interview different stakeholders (e.g., customers, collaborators, suppliers) to understand, from their point of view, what they consider important to be communicated by the companies and how they prefer these communications to be placed and produced; 4.To further test and iterate the SCF developed,

with the seek of applying the framework in different countries, and in companies of different sectors and sizes.

11. Conclusions

The proposal made by this study was to develop a holistic SCF taking into consideration the communication processes developed by companies considered highly sustainable. The companies selected were from a list of the most sustainable companies in the world according to the Global 100 Index by Corporate Knights. The methodology selected was a mixed methodology, that combined data gathering and interpreting with interviews in order to design and iterate the framework creation.

Considering that, as far as we are aware, no study made previously was dedicated to investigate the process of communicating sustainability specific topics, this study contributed to enrich the communication studies area. It also contributed to enrich the management studies by approaching topics regarding innovative management, where sustainability is an important value to the businesses.

Both objectives proposed by these study (1. of mapping the best sustainability communication practices of companies considered 'highly sustainable' by the G100, and 2. of developing a framework based on these practices) were successfully reached.

Regarding the first objective, by the study of the online presence of Global 100 companies, it was possible to notice several common trends. The first one was the prevalence of text and images in the websites and the underuse of videos and infographics as formats of the communication contents. The second trend was an increase in the number of reports available according to the years.

From the interviews developed with the companies it was possible to find and interpret similar practices regarding communicating sustainability among different companies perceived as highly sustainable.

Therefore, the steps of empirical research of this study contributed to answering R.Q.1 and concluding that the process of communication in companies of the G100 reveal similarities regarding processes, target audiences, channels and contents.

These practices, along with the previous data gathering, allowed the development of a SCF, anchored in real world practices, and confirmed by existing research. This way, R.Q.2 was successfully answered.

The framework starts by considering the importance and influence that existing sustainability frameworks have on the delineation of the business strategy and on the content to be developed by sustainability and communication teams.

The second step of the framework happens at a strategic level, where management defines and filters the strategy to be developed by the sustainability and communication teams.

The third and final step happens within the sustainability and communication teams, where two parallel processes happen: the production of communication contents and campaigns and the production of a report. The communication process is divided in three stages, the first one is a strategic step to be developed before implementing the communication, the second one happens while communicating and finally, the third step occurs after communicating.

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Appendix I (Synthesis of literature Review)

Table 11 - *Synthesis of Literature Review*

Nº	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
1	(Perchinunno & Cazzolle, 2020)	• Sustainability; • Ranking; • Cluster analysis; • Campus setting; • Indicators; • Categories	*Cluster analysis – Universities.* GreenMetric as a ranking. The importance of cluster analysis is to understand trends in sustainability practices.	Exclusively based on the GreenMetric as a globally attractive sustainability ranking. Studies only universities.
2	(Colucci et al., 2020)*	• CSR communication; • CSR implementation; • Institutional pressure; • Sustainability; • Fashion companies	*Data gathering – SMEs.* Measuring CSR from the communicative (*CSRtalk*) and from executive (*CSRwalk*) perspectives, actions performed by companies in the fashion industry.	Studies only SMEs. Future research can understand whether SMEs are pressured to make their CSR communication more explicit, and whether CSR can have an influence on consumers' responsible behavior.
3	(Kostoska & Kocarev, 2019)	• Sustainable Development Goals; • ICT framework; • Governance science; • Sustainability science; • Data science; • Digital democracy	*Theoretical framework, ICT.* Provides a novel ICT framework for addressing SDGs. Important concepts are: data, sustainability, and governance module; short-term and long-term SDGs; vertical and horizontal linkages.	Framework is purely conceptual. Challenges to implementation could be: privacy, accountability, fairness, and paternalism. Future practical work is suggested.
4	(Ližbetinová et al., 2019)	• SMEs; • Marketing communications; • Marketing communication tools; • CRM; • Customer; • Database; • Cluster analysis	*Quantitative – SMEs.* Determine clusters of SMEs and create effective marketing strategies according to trends.	The study was performed only in Slovakia, in small and medium enterprises. Therefore, it is restricted to the realty of the specific country.
5	(Hellman et al., 2019)	• Work environment; • Employee participation;	*Qualitative – employees.* Organizational work environment influences employees' work situations	Exclusively employee research. Low generalizability of the study. There are still

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Occupational health	and the development of sustainable work systems.	questions concerning the organizational preconditions.
6	(Constantinescu et al., 2019)	• Neuromarketing; • Social media; • Sustainable communication; • Quantitative marketing research	*Quantitative – companies and customers.* Shows different objectives in companies' purposes and customers' sought-after benefits.	Study was only made in Romanian environment. Possible future research could approach customers perception over intrusions in their life.
7	(De Filippo et al., 2020)	• Spanish universities; • Communication on sustainability; • University websites; • Bibliometric; • Indicators; • Social media	*Data collection – universities.* Commitment to communicate sustainability to society. Shows low adoption of social media accounts and blogs specifically designed to disseminate sustainability activities.	Focus on the analysis of the publicly provided information, therefore, only the "visible" part of the activity was considered. "Invisible" practices were not accounted for.
8	(Korenkova et al., 2020)*	• Advertising; • Perception of advertising; • Social media; • Social network; • Customer; marketing communication; • Corporate sustainability	*Quantitative analysis - customers.* Advertising on social media has higher influence than the majority of other types of advertising. At the same time, it is not one of the most trusted.	Focus on customers. Possibility to determine which social networks are used by companies in more detail and if the companies use them as information channels or also to stimulate communication.
9	(Stanislavská et al., 2020)*	• Corporate social responsibility; • Developing countries; • Developed countries; • Instagram; • Social media analysis; • Charity	*Content analysis – social media users.* Social media allows companies to engage with interest groups, and enables them to solidify CSR policies. The concept (CSR) is well-established for companies in Western countries, and is becoming increasingly popular in developing countries.	The study was performed exclusively by analyzing hashtags, without deeper content analysis.
10	(Bauer & Lim, 2019)	• Volunteering; • Organization identification;	*Quantitative – NGOs.* Specific communication factors, including a relationship with one's	The study is conducted with only one nonprofit organization. It would be important to test the

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Retention; • Relationship with supervisor; • Internal communication; • Social media; • Mission statement; • Leader-member exchange theory; • Absorption capacity theory	supervisor, internal communication, and external social media postings significantly increase the level of organization identification and retention.	hypotheses in organizations devoted to sustainable initiatives.
11	(Merle et al., 2019)	• Global citizenship; • Social identity; • Global identity; • Globalization; • Sentiment analysis; • Social networks; • Twitter	*Data analysis – socia media users.* The concept of global citizenship is associated with pro-social and pro-environmental attitudes, beliefs and behaviors. Global citizenship is related to rather positive emotions.	Only English tweets were used. It analyses tweets on #globalcitizen within a period of six months so single events may have influenced the results. The focus was on the frequencies of words not in their specific content.
12	(Ben Amara & Chen, 2020)*	• Network capability; • Eco-innovation capability; • Performance; • Sustainable development; • Entrepreneurship	*Qualitative analysis – agrifood sector companies.* Enterprises cannot achieve environmental sustainability goals in isolation. Capabilities to perform within networks of professional and social relations with other organizations are needed.	Future research should develop enhanced, comprehensive, robust, and multidimensional scale for network capability. Additional moderators or mediators other than the eco-innovation capability need to be tested.
13	(Masud et al., 2019)	• Sustainability; • Corporate social responsibility; • Strategy; • Triple bottom line; • Mediation	*Quantitative – employees.* Economic responsibility has no dominant role while environmental and social responsibility significantly mediate the relationship between OSP and CSRP.	The study is based solely on the manufacturing sector in Bangladesh. It only considered employees, no other stakeholders.
14	(Dodds et al., 2020)*	• Festivals; • Sustainability; • Communication; • Cultivation theory;	*Mixed methodology – festivals.* Most popular sustainability practices communicated were waste management and sustainable transportation. Few	Best practices were determined by the quantity, not the quality of initiatives found. The findings of the study are limited to Canadian festivals and what

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Social media	festivals engaged in effective, consistent and sufficient marketing of initiatives. Best practice festivals were more likely to have sustainability engrained into their corporate philosophy via a communicated sustainable vision and mission.	was presented online; while interviews were utilized to close the gap between what is presented and actions taken.
15	(Rahman et al., 2020)*	• Financial sustainability; • Social media adoption; • Social media sustainable practices; • SMEs; • Developing countries; • Social media sustainability; • Pakistan	*Quantitative – SMEs.* Using social media platforms for the financially sustainable development of SMEs can be an interesting strategy.	The study collects data from a single source, further could capture views of customers, suppliers, government officials and employees, and differentiate the social media platforms adopted.
16	(Rad et al., 2020)	• Social sustainability; • Emerging digital competency; • Mediatization of everything; • Social media context awareness; • Social media literacy; • Social media communication process understanding; • Social media content impact awareness; • Social media confidence	*Qualitative research – Erasmus students.* The study designs and validates a new scale of social media context awareness that shows this is an emerging digital competency possible to be empirically measured and taught. The study accesses the importance of social media context awareness.	More in-depth research is needed to further test and validate this scale on larger pools. Also, further research can investigate alternate ways to analyze the construction element of social media context awareness.
17	(Jaques et al., 2019)*	• Post-truth; • Ideology; • Hegemony;	*Mixed method research – social media users.* Social media may not be a recommended tool to communicate sustainability.	The research does not differentiate users and bots. The comments may represent users with strong interest in climate politics,

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Science communication; • Facebook; • Social media		therefore, not representative of a comprehensive sampling.
18	(Kong et al., 2021)	• Fashion; • Luxury brands; • Social media communication; • Sustainability	*Content analysis – customers.* Brand advertisers should carefully consider cultural settings when providing sustainability information.	Further research should investigate why consumers who have high trust and sustainability perceptions would have diluted brand evaluations.
19	(Wróblewski et al., 2018)	• Consumer-based brand equity; • Social media; • Cultural institutions; • Factor analysis; • CBBE; • 3C Sustainable System	*Quantitative - social media users.* The activity of consumers of cultural institutions in social media, helps to stimulate the brand's awareness/associations with the brand and the perception of its quality.	The research was performed in cultural institutions. The customer behavior may be different when interacting with different "types of culture". Researches could be performed on larger samples.
20	(Kang & Park, 2018)	• Structural feature; • Social media; • Small and medium enterprise; • SME; • Sustainability; • Message attribute; • Marketing; • Structural equation model	*Content analysis – enterprises.* Brand attitudes and corporate trust have larger impacts on purchase intention for SMEs than when compared to large firms.	The research was made exclusively in Korea, and thus cultural differences may occur. Only Twitter was used as the context for collecting data, and brands that are popular among college students were selected.
21	(Janoušková et al., 2019)*	• Sustainable development; • Sustainability communication; • Media analysis; • SDGs; • Knowledge on sustainable development	*Quantitative – enterprises.* Emerging media discourse and political discourse need to work on framing particular themes and integrating them into various fields of public policy, and into the sustainability concept.	The research is made with a quantitative approach and although it affirms that sustainability communication does not yet have its own theoretical framework, it does not propose an alternative one.

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
22	(Obrenovic et al., 2020)*	• COVID-19 business implications; • Sustainability in crisis; • COVID-19 management; • Sustainable enterprise; • enterprise effectiveness; • Pandemic sustainability model; • Enterprise • Sustainability; • COVID-19	*Literature review – enterprises.* Organizations with networked structures and a high level of virtuality, as opposed to hierarchical types, are more likely to achieve sustainability.	The COVID-19 outbreak is still in progress. Future studies should adopt qualitative and quantitative methodology on the key indicators.
23	(J. Lee & Cho, 2020)*	• Corporate sustainability communication; • Media exposure and attention; • Media credibility; • Environmental protection • Behaviors; • Green purchasing behaviors	*Quantitative – customers.* Consumers' perceived media credibility enhances relationship between media exposure and environmental protection behavior intentions.	Use of MTurk can lead study's results to suffer from the issue of generalizability. The study used self-administrative questions to measure media exposure and attention.
24	(Ayman et al., 2020)	• COVID-19 pandemic; • Crisis management; • Higher education systems; • Online communication; • PR models	*Mixed method research – universities.* There is a need for the universities to listen to their stakeholders not only in face-to-face communication but more so through digital communication platforms as well.	Research exclusively done in North Cyprus during COVID-19 process by using Facebook shares and PR models from March 10th to June 30th 2020.
25	(Di Nauta et al., 2020)	• Sustainability in universities; • Agenda 2030;	*Content analysis – universities.* The considerable awareness of universities regarding their key role played on the sociopolitical	The methodology used was content analysis, exclusively in Italy, focused in universities. Future research could use

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Sustainable development goals; • Institutional communication tools; • Strategic plan; • Sustainability report; • Sustainability commitment	and economic levels for the diffusion of the Agenda 2030 within civil society.	longitudinal analysis to compare the current strategic planning contents and sustainability reporting.
26	(Rademaker & Royne, 2018)*	• Corporate sustainability; • Environmental concern; • Advertising media; • Eco-conscious attitudes (ECA); • Green policies; • Internal drivers; • Managerial decisions; • Marketing communication;	*Quantitative – advertising professionals.* The environment is one of the least considered factors among marketing managers when making media decisions, even though nearly 80% of respondents work at companies with documented environmental policies. Problems with consistency exist between organizational ideologies and action.	This was a quantitative study performed exclusively in Sweden with marketing managers.
27	(Gori et al., 2020)	• Sustainability; • Social media; • Dialogic communication; • Higher education sector	*Mixed method research – university.* The level of stakeholder interaction is, in general, low and limited. To reach a "two-way" communication" about sustainability, it would be essential to actively respond to stakeholders' requests.	The study was made exclusively in one Italian university. The paper calls for new studies where scholars investigate more in depth the contribution of social media in developing a model of sustainable universities.
28	(Pilăr et al., 2019)	• Sustainability; • Environmental sustainability; • Innovation; environment; • Climate change; • Corporate social responsibility;	*Quantitative -Data analysis – Twitter users.* The companies in the sector of renewable energy and environmental sustainability perceive the importance of communication with the community, and they are using social networks as an effective channel for a two-	The study focused on a content analysis of Twitter messages, not by understanding processes and choices that happened before the possible interactions analyzed.

Nº	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Food innovation; • Green architecture	way communication with their target groups.	
29	(Karyotakis & Antonopoulos, 2021)	• Big data; • Cultural heritage; • Data center; • Digital marketing; • Eco-friendly; • Environmental communication; • Green websites; • Green culture; • Green hosting; • Sustainability	*Qualitative - green hosting enterprises.* Most of the websites tried to highlight the positive impact their services have on the environment. In addition, many websites tried to educate their consumers concerning sustainable development and make them part of a broader, green, cultural tradition.	Future studies can take a closer look at other aspects of green practices and culture and how this usage is connected with each country's culture. A similar qualitative content analysis of such websites will enhance the relevant bibliography of green practices and culture.
30	(Maher, Maher, McAlpine, et al., 2018)*	• Conceptual frameworks; • Design thinking; • Interdisciplinary collaboration; • Online networks; • Sustainability; • Visual communication	*Design approach.* The research synthesizes three themes: (1) more integrated conceptual frameworks; (2) digital visual communication; and (3) online networks. Using design thinking, they developed a Synergy Map which identifies relationships among barriers to sustainability and conceptual and digital tools.	Further research could understand needs and motives of different groups pursuing sustainability; understand the potential of conceptual frameworks; and develop more integrated conceptual frameworks as a foundation for interdisciplinary collaboration.
31	(Lodhia, 2018)*	• Social media; • Engagement; • Stakeholders; • Communication; • Sustainability reporting; • Web; • Information and Communication technologies	*Literature review – sustainability reporting.* The newer form of communication media extends the capabilities of traditional media. This study provides an extensive research agenda for exploring the role of the media in sustainability communication.	Future research needs to justify the choice of the medium used for sustainability reporting studies. Research could explore how organizations are using newer media to facilitate the actual integrated reporting process. It would also be of interest to explore the interactivity offered by the newer media for integrated reporting, and whether this transforms one-directional reporting into two-way

Nº	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
				communication and engagement.
32	(Maher, Maher, Mann, et al., 2018)	• Research through design; • Sustainability; • Design thinking; • Interdisciplinary collaboration; • Conceptual Frameworks; • Visual communication; • Social–ecological systems; • Cross-scale interactions	*Framework development.* Many sustainability challenges are too complex, so they must be visualized to be considered holistically. Diagrams can help sustainability researchers to identify existing and possible relationships between parts.	MetaMAP necessarily contains some compromises including: the categories, scales and guided process may be unsuited to some applications; and the apparent complexity of the framework may require practice and/or training to apply.
33	(A. A. Kim et al., 2018)*	• Campus sustainability; • Sustainability communication; • Communication sources; • Occupant awareness; • Behavioral changes; • Effective communication;	*Quantitative – universities.* Factor analysis showed three clusters: news sources, blogs and social media sources, and local sources of information that had positive impacts on the sustainability awareness of students, staff, and faculty members.	The study was performed in one university. There are differences in the 2012 and 2014 survey response rates. Possible limitations in the study are nonresponse bias and common-method bias.
34	(Reilly & Larya, 2018)*	• External communication; • Corporate social Responsibility; • Sustainability; • Social media	*Quantitative content analysis – enterprises.* External communication about CSR and sustainability activities varies significantly across firms. Communication channel, content, and frequency may reflect a company's resource allocation priorities, its culture, and its leadership in the sustainability domain.	Focus on external communication about CSR, does not explain internal processes within companies to make specific choices regarding sustainability communication.

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
35	(Tsalis et al., 2018)	• Corporate social responsibility reporting; • Benchmarking-scoring techniques; • Sustainability reports; • Global Reporting Initiative	*Qualitative content analysis – CSR reports.* CSR reporting is a popular communication tool whereby stakeholders can be informed about firms' performance in various aspects of corporate social responsibility, nonetheless, the quality of the organizational health safety (OHS) disclosures was very poor. European firms publish a higher quality of OHS than firms which operate in North America and Oceania.	The study researched the content of 134 sustainability reports, written in English in 2015 which focused on health. Future research could further examine and assess the quality of OHS information and data published by firms on their websites or other corporate reports. Future studies should concentrate on specific sectors in order to assess the level of OHS disclosures of each sector.
36	(Conte et al., 2018)	• Sustainability communication management; • Data visualization dashboard; • Healthcare organizations; • Social media; • User engagement; • Managerial dashboard	*Content analysis – healthcare organizations.* The social component of sustainability prevails over environmental and economic issues, on social media although it does not seem to generate increased consumer engagement.	The study is a starting point for cross-country comparisons to assess if the same pattern holds true in different conditions. It would be interesting to further unravel stakeholder reactions to companies' sustainability communication on social media.
37	(Hao et al., 2018)*	• Communication, corporate social responsibility; • Cross-cultural learning interest; • Cultural diversity; • Organizational environment; • Social media; • Social sustainability	*Literature review – framework development.* By exploring the utilization of social media for communication of CSR, this report is a step towards empirical research to produce a concrete theory based on the methodology, tests and measures prescribed.	Model is focused on language (native vs. non-native speakers). A model has been designed and measures have been set for future empirical research to test the hypotheses. Future empirical research must test empirically.
38	(S. Kim & Ji, 2017)*	• CSR communication;	*Quantitative – customers.* The study investigates what Chinese consumers expect for CSR communication such as communication	The study was made in China, exclusively with Chinese population and companies. Future studies could approach different

N°	Authors/ Years	Keywords	Methodology / Concepts covered	Future research / limitations
		• Corporate sustainability communication; • Consumer expectation; • China; • Hong Kong; • Communication Source; • Media channels; • Dimensions	content, media channels, and sources. Chinese consumers are found to prefer non-corporate sources and uncontrolled media channels.	countries, or even consider the perspective of the companies, instead of the customers.
39	(Y. C. Lee, 2017)*	• Customer centric; • Overconsumption; • Sustainability; • Sustainable mindsets	*Content analysis – Fortune 500 enterprises.* Results reveal significant differences between sustainability marketing communications in blogs and on Facebook. The study makes theoretical contributions by proposing a customer-centric SMC framework that integrates sustainability issues, stimulation of sustainable mindsets and encouragement of sustainable consumption.	The research focused exclusively on Fortune 500 enterprises and strictly used data gathered in social media and blogs, without closer interaction with firms internal stakeholders and processes.

Appendix II (Summary of interviews before final interview protocol)

Table 12 - *List of interviews - iteration of the semi structured interview guide*

Interviewee	Characterization	Positive	Negative	Comments on the questions
Interview 1 B.F., International Trade Analyst	The interviewee was from the sales sector, therefore, had difficulty answering questions regarding external communication, as well as efficacy measures. The interview lasted 20 minutes.	Answers to the questions were exactly what they were expected to be. The interviewee was able to answer the internal communication questions from the point of view of a receiver of internal communication.	The organization of the questions made it difficult for the answers to flow. The fact that the interviewee was from the sales sector did not allow good understanding of the external communication, nor the measures of effectiveness	Interviewee suggested to clarify first question (concept of sustainability); Regarding the second question (on strategy), the interviewee suggested to guide the question regarding some specific points on sustainability to clarify the possibilities of response.
Interview 2 - M.S., Manager[26]	The interviewee was from the company's marketing sector and found it easy to answer the entire planned script of questions, both for communication and strategy. The interview lasted 40 minutes and had all the answers of the script covered.	Answers to the questions were exactly what they were expected to be; The construction of some questions led to the repetition of previously given answers. The questions were marked to be reconstructed. Because of interviewee's position there was a better sense of the organization of sectors within the company.	The interviewee is not linked to sustainability therefore, the answers concerning concepts of sustainability for the company and the actions taken were a little skewed.	Interviewee suggested starting the research by asking the concept of sustainability for the person being interviewed since depending on the individual's level of knowledge about sustainability, the answers could be skewed.
Interview 3. - R.F., Global	The interviewee was from the company's	Answers to the questions were as expected and the		It was the most helpful interview for the development of the

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[26] This interview brought some evidence to be considered, such as the existence of a multisectoral committee in the company, which was composed, among other people, by a communication representative. In addition, the prospect that the company had local and national departments was an evidence to be considered also since, according to the interviewee, there was often a lack of awareness on the part of the national department, of the priorities and organization of the local department, of which he it was part.

Brand Success Specialist	partner success sector and was part of the local sustainability group in the Portuguese matrix of the company. The interview lasted 45 minutes and had all the answers of the script covered.	interviewee brought up topics not yet addressed by the other interviewees, such as the topic of transparency, the different layers and levels that often involve sustainability teams and local peculiarities in the face of international demands .		final interview protocol. Interviewee gave several suggestions regarding specifically the construction of the questions[27].
Interview 4 - T.P., Digital Marketing Coordinator	The interviewee was from the marketing sector, which facilitated responses regarding communication. The interviewee's knowledge about sustainability was restricted to communications focused on the company's internal viewing. The interview lasted 25 minutes and questions regarding measurements were not answered.	The interviewee was close to the external communication sector and was always attentive to the communications received regarding sustainability actions.	The interviewee had little knowledge of sustainability in the broad sense of the term, which made the script as it was, difficult for him to answer. It was necessary to explain the concept of TBL and to understand in which scope the company was more dedicated to sustainability.	The interviewee suggested 1. clarifying, in the second question, (strategy as referring to the business strategy); 2. preparing examples for questions where the interviewee may ask for clarification.
Interview 5 - B.B,	The interviewee was from the company's marketing and	By being part of a mixed marketing and sales team, the interviewee was	Due to not being in a managerial or decision-making position, the	The interviewee suggested starting the interview by outlining a plan to be followed by

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[27] Suggestions were to: 1. insert the word initiatives in the first questions, as it includes both practical and literacy actions on sustainability; 2. start part of the questions of organization and internal structure of the company in a more comprehensive way, to try to understand how the sustainability department is organized within the company and to whom it answers to, and, after that, funnel to the communication departments; 3. to clarify, at the beginning of the questions, what the concept of sustainability to be researched refers to and to prepare examples in questions that may require clarification on the part of the interviewee; 4. A suggested word was "campaigns" to represent specific initiatives at a specific time with a specific objective; 5. To clarify, in the parts referring to internal and external communication to which scope of communication they refer to; 6. to explore well the company's internal organization with regard to sustainability, hierarchies, structures and size, as well as the location in which the offices are located in order to explain the local and global aspects of the companies.

Commercial Analyst	sales sector, but did not hold a managerial position, was not aware of the strategic part of the decisions. The interview lasted 25 minutes and the questions regarding the measurement of effectiveness, as well as the external communication strategy were left unanswered.	able to respond from a complementary perspective of sectors. The company in question is a retail trade company and, therefore, the interviewee brought up issues related to the pursuit of profit, sales results, and achievement of goals, relegating sustainability issues in the background.	interviewee knew little about external communication and measuring effectiveness.	the interviewee so that the dimensions to be addressed in the questions are clear and who is being questioned can understand the logical organization in the script, which goes through strategy, for internal communication and ends with external communication.
Interview 6 - J.B., Services Sales Specialist	The interviewee was from the company's sales sector and had no knowledge of the company's strategic communication and sustainability decisions. The interview lasted 30 minutes questions related to external communication, measurement of effectiveness and results of communication remained unanswered.	As a consumer of internal sustainability communication, and of the company's sales strategy, the interviewee was able to provide information about internal communication and the business strategy chosen by the company for the sale of products and using sustainability discourse to strengthen the brand image.	Because he is not from the communications sector and does not have a strategic communication or sustainability position, the interviewee was unable to answer questions related to external communication and measurement of effectiveness.	The interviewee stressed the importance of finding the right person(s) who can fully respond to the script or adapt the script to the profile of the person being interviewed. It was also suggested by the interviewee to focus on decision-making profiles that have a more comprehensive view of business strategies and processes[28]. Another suggestion wasto clarify and exemplify some concepts that may lead the interviewee to ask for examples, such as the case of content and effectiveness.

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[28] For the interviewee, hardly anyone who is outside the company's marketing area monitors external perception and has knowledge about key performance indicators. In addition, on the financial side, the interviewee said he believed it was difficult for someone outside the financial sector to know specifics about funds allocated for sustainability and sustainability communication overall.

Appendix III (Final Interview Protocol)

Final Interview Protocol

I am developing a master's research on the sustainability communication processes in companies in the Global 100 Index. This study aims to understand the company's internal and external sustainability initiatives. That is why this interview is organized in three parts. The first is more focused on business strategy in general, followed by internal communication actions and, finally, external communication actions. The interview should take around 45 minutes.

1.   How do you define sustainability within the context of your company? Are you aware of any sustainability initiatives within the context of your company?

2.   Considering that sustainability encompasses three major areas: environmental sustainability, social sustainability and economic sustainability, what is the role of sustainability in your company's business strategy?
- Overall strategy
- Mission and Vision

3.   Does your company have sustainability-specific roles/departments? Who do they answer to? And are there sustainability specialists within the communication departments?
- Strategy's impact on communication processes
- Human resources
- Knowledge

4.   Does your company dedicate financial resources specifically towards sustainability activities, initiatives and publications/reports? How frequently? What are the priorities?
- Financial resources
- Knowledge

5.   How does your company communicate internally regarding sustainability in general?
- Internal guidelines
- Mission and Vision
- Internal communication

a)   What are considered to be the most important target audience of internal communications regarding sustainability? Why?

- Internal communication
- Communication Strategy (target audiences)

b)   What are the main channels used to communicate sustainability internally? Why? Which ones are more effective?

- Internal communication
- Communication Strategy (content)
- Knowledge

c)   Which are the most important internally distributed content regarding sustainability communication? Which are the most effective? Why?

- Internal communication
- Communication Strategy (channels)

6.   How do you measure the impact of this internal shared content and planned activities/initiatives?
- Internal communication
- Communication Strategy (impact measurement)

7. Are there company sponsored activities and specifically-dedicated content to increase the knowledge of sustainability amongst the communication teams? From where do the initiatives come from? (bottom-up or top-down?)

- Management behavior
- Employee behavior
- Internal communication
- Knowledge

8. How do you evaluate the results of the aforementioned? What do you do with them?

- Management behavior
- Employee behavior
- Internal communication
- Communication Strategy (effectiveness measurement)

9. How does your company communicate themes of sustainability to external audiences?

- External controlled communication
- Communication Strategy (channel, target audiences, content and effectiveness measurement)

a) What are the main target audiences of external communications regarding sustainability? Why?

- External controlled communication
- Communication Strategy (target audiences)

b) What are the main contents of external communications regarding sustainability? Why? Which ones are more effective?

- External controlled communication
- Communication Strategy (content)

c) What are the main channels used to communicate themes/initiatives regarding sustainability externally? Why? Which ones are the most effective?

- External controlled communication
- Communication Strategy (channel)

10. How does your company measure the impact of communications regarding sustainability made for external target audiences?

- External controlled communication
- Communication Strategy (effectiveness measurement)

11. Do you execute communication campaigns specific to sustainability issues even if the impact may only be seen/measured in the long-run?

- Strategy's impact on communication processes
- External controlled communication
- Internal communication

Appendix IV (Findings after interviews with G100 companies)

Corporate Strategy

It is possible to notice two common trends between companies of the G100 regarding sustainability. On one side, sustainability was not considered as important as some other topics – such as profit, for instance. In these cases, the journey towards sustainability came from a higher-level administrator who may have been passionate about new trends, such as environmentalism and social improvement. This person would establish a reporting routine inside the company. *"Our company is a very traditional oil refining company from the very beginning, and the renewable raw materials came to the portfolio very heavily (…). That was a strategic decision. Obviously, it has been a risk of course and in the first place it wasn't very big or profitable. We are kind of in the safe stage for now, where the competitors are not there yet because there was this long-term risk, tolerated "*, I5.

"So, the origin was with a program by which we started reporting with GRI and kind of on the path where we are following those directives and using the rating and rankings to measure the progress and then you're in a cycle. It came from the SVP for Corporate Affairs, who was then the leader of that team. So, leadership of people doing our social programming I would say", I8.

On the other side, there is a trend of the businesses that were created with some level of sustainability embedded into their overall purpose, or even practiced among lower-level employees by volunteer works, but it was not seen as a holistic area until a high-level corporative collaborator got interested in the topic of CSR reporting and responsible production. *"There were plenty of actions being developed, but no declared planning"*, I1. *In 2016 came the perception that sustainability could be treated from a strategic perspective for the business."*, I2. *"This company was born as part of another one. It came from the idea of the company founders of making a business to make lives better through technology and science"*, I9.

"One of the members of the company was literally on a plane coming back from Europe and reading a newspaper that called out our company as being one of the worst in the world; and it was just absolutely mind blowing because at this point, we always gave money, we always focused on the community in that way. (…). So, what came to light was that we were doing so many great things, but we weren't really transparent about it, we weren't reporting on it, we didn't have a sustainability report, and to be honest at that time we weren't yet talking about climate change and those issues in the company" I7.

Overall strategy

All companies interviewed said that strategy is embedded into everything that they do. "*We are making sustainability one of our biggest responsibilities, incorporating it into the core of our business - in everything we do and for everyone we work with: our customers, people, shareholders, partners and communities*", I12.

Both types of companies, those born with some level of sustainability awareness embedded within their business model and companies that developed components of sustainability over time, became more aware of the environmental aspect of sustainability and its impact in the business "*We are trying to be more transparent; we are trying to talk about our environmental sustainability*", I10.

In the finance companies interviewed, focusing on sustainability as part of the business strategy was seen as an important risk management asset "*So it started as CSR risk management, nearly 20 years ago. The starting point was integrating the risk aspect of sustainability into our financing, and that has then evolved to sustainable finance. So, you can maybe understand it as a spectrum: on one hand, you manage the risks, which is almost like a reactive approach to sustainability. Now on the other end of the spectrum you have sustainable finance, where the financing goes exclusively towards what is considered sustainable*", I11.

"*There was a market pressure to disclose information, because risks can impact profit*", I6.

Strategy's impact on the communication processes

With the development of a clear sustainability strategy and the growth of the topic within the companies, all enterprises in the G100 said they now have targets (i.e., goals and objectives included in a plan to communicate sustainability-specific topics), and plan to communicate sustainability both inside and outside of the company "*We currently have targets, and we are focused on how to communicate them*" I10. "*Nothing is marketed to the external audiences before being released internally*", I3.

"*Internal sustainability communication is an important part of what we do. The materiality matrix is used as a backbone to the architecture of what we are going to communicate externally*", I9.

Corporate Structure

All companies interviewed have a clear sustainability structure within the company framework. The most common setting is the existence of a sustainability department which is subordinate to

a Chief Sustainability Officer (or other Chief Officer), and this department has a close relationship with the communications departments (both internal and external, when they are separate).

In some cases, there is a sustainability specialized person within the communication sector, but this is not a common practice. *"In our communications we have, I think her role was Sustainability Communication Manager, so we do have a dedicated person for sustainability communications and she has a team member as well, junior colleague, so we do have like a specific person there, however, as I said, sustainability is very much is part of the whole company strategy, so it's not just her that we are working with, but are closely working with all communication teams."*, I5.

The sustainability department is the main responsible for the sustainability strategies across the company. Moreover, it has the people responsible for overseeing the sustainable activities taken across the business, and to condense it by either developing ideas of stories to be created by the communications departments, or contents to include in the Annual and Sustainability reports of the company. *"We have the CSR functions, there is a lead in Copenhagen and a team of around 18, 20 people. Then we have a leader of sustainability in each sight we have an office. They work on material topics specific of each region"*, I9.

Human Resources

The sustainability departments of the companies are composed of people from diverse sectors who work together to come up with sustainable initiatives and solutions, oversee these initiatives, and determine what is going to be the business focus regarding sustainability. *"My bachelors were in communication and then a masters in sustainability management. So, I am the responsible in the sustainability team to create articles and stories. The team is pretty diverse, we have engineers, physics, but we do not have a sustainability specialized person in the communications department"* I4.

The communication departments normally work closely together with the sustainability departments, but it is uncommon to have a person specialized in sustainability inside the communication department. *"We have a specific structure, but outside the communication department"* I12.

Knowledge

All companies in the Global 100 that were interviewed have courses and workshops aimed to further develop the knowledge about sustainability of their workforce.

In some cases, the strategy used to engage their employees was to include these initiatives as a mandatory part of the training for employees. *"There is the Sustainability Trail, which is a training offered to the employees. Those working in the sustainability team must have an internal certification"*, I2. *"There is a digital training platform for employees and two dedicated apps. The training is multi-device and multi-platform"*, I6. *"So, training is a prerequisite of anyone within the bank no matter what team they are part of. So, teams go to training, like the Cambridge Sustainability Leadership Certificate for instance when we offer them"*, I11.

Especially in bigger companies (with more than 10.000 employees), a way to encourage employee participation in sustainability initiatives was to reward the employees with benefits for studying or to implement sustainable initiatives into their routines. *"We have mandatory training every semester. It is worth points. And volunteering activities too"*, I1. *"We have employee benefits for sustainable goals. (…) There is 1% of the work time dedicated towards the SDGs"* I9.

Financial resources

Being a separate department inside the company, the sustainability department has its own budget that may be destined to address diverse objectives according to the goals and needs established. *"After being separated as an autonomous sector, sustainability gained its own budget"*, I2. *"Definitely yes because we are a business function, next to communication or public affairs, we do have our own budget"*, I5.

Most of the interviewees did not know exactly how this budget is managed. However, some initiatives were mentioned, such as training, investor relations meetings and real estate. *"I guess the biggest financial contribution is staff time and we have a big program called networking academy which provides training, free training for people and technology solutions. So that's a training that we develop, and market, and sell, all around the world"*, I8. *"The team has a year's budget to make it easier to form out. Real estate has a big part of the budget"*, I10.

Corporate culture

Most companies interviewed described the most important aspect of their communications, and identity, to be the sustainable culture embedded in the practices, ideals, and employees. *"Word of Mouth and culture are the most effective channels to communicate sustainability. This (sustainability) is active in the internal company culture"*, I3.

Internal guidelines

All companies in the G100 that were interviewed have guidelines regarding sustainability. As the reporting frameworks (e.g., GRI, CDP, DJSI, SDG) are seen as management tools, the heads of offices use sustainability premises – items that are expected to be measured and disclosed according to existing frameworks – to guide the teams, and to more clearly establish goals within the whole company. These goals are then compiled, and gathered, to form the reports, and quarterly results that are advertised. *"Reporting is both a management tool and a communication tool"*, I6. *"The materiality matrix is used as a backbone to everything we have to say"*, I9

Mission and Vision

All companies interviewed mentioned sustainability as a part of their purpose and of their business mission. *"Since we were born, we had a different view over beauty. The social sustainability came before the environmental one. Nowadays it (sustainability) comes from a notion that we have about the finite resources from the planet. To give back in balance with what we take"*, I3.

"At the moment we have the mission of creating a healthier planet for the children, so it's more or less with the help of sustainability produced, renewable products, so it's at the very core of the whole company strategy", I5. *"We are committed to help solving three global challenges: Climate, Water and sustainable Production and Consumption. We hold ourselves accountable to reduce the negative impact"*, I9.

Although only three of the interviewed companies have specific words of "sustainability" or "sustainable" mentioned in their mission statement available online, nonetheless, the terms "innovation", "innovative", "innovate", "circularity", "climate", "equality", "inclusion", "responsible", "consumption", "circular solutions" and "impact" were used in 7 out of 11 mission statements of the G100 companies analyzed.

Behavior

In all companies interviewed, sustainability gained space when it was considered important, both for external image and internal practices, a decision made by the management team. The decision consisted of:

Beginning to do reports: *"somewhere around 2005 was the first CSR report. The first report really did cover the education program that I mentioned. And the desire to research, to see what we were doing, what we were with*

that program and measure the impact of that program and then measure progress over time and so it really started with the desire to do that and then to report externally on that", I8;

Creating a separate department for sustainability: "*it is really recent. Just one month ago, our sustainability management became autonomous management. Until then we used to be bound to an investor relations unit. Around 30 days ago the sustainability department became linked directly to the vice presidency, the vice president of agribusiness and government inside the bank, who is subordinate only to the president"*, I2;

Management behavior

All companies focus on improving the knowledge of sustainability and encourage sustainable behaviors primarily from management positions. Especially companies with more than 10.000 employees mentioned a difficulty to reach lower-level employees with the sustainability message, therefore, the focus on management occurs due to an active search for the management teams to motivate the subordinates by example *"There needs to be a very great awareness of the leaders and managers so that the employees will follow, a leadership based on the example"*, I1.

Employee behavior

It was possible to notice a common trend among all G100 companies interviewed. There is a growing interest to raise the employee's knowledge and behavior towards a larger sustainability consciousness "*people tend to work on more the touchy feely teams tend to have a little more awareness (…), so we are looking to increase and improve how we explain this and get people the information"*, I8; and sustainable practices overall *"we produce content about our goals and results and (…), employees ask why we are not being more ambitious"*, I9.

Corporate Communication

All companies of the G100 interviewed have a common strategy to communicate sustainability related topics. The common trend was to use the reporting frameworks (e.g., GRI, CDP, TGSI) as a management tool to gather information from across all the company, and then communicate the initiatives, goals and targets reached from there, using the report as a source of content for both internal and external communication. *"The sustainability report is the bulk of the external communication"*, I6.

In some cases, the businesses are still defining a clear process for how to communicate the targets and goals present in the reports: *"We have targets, and we are currently working on how to communicate them"*, I10.

Internal communication

The internal communication of all companies analyzed showed similarities regarding target audiences, content, and channels. According to the company sector and the size, different strategies would apply internally. Bigger companies showed a tendency to focus more on higher-level target-audiences, and smaller companies had communication strategies that aimed towards all employees.

Regarding the objective of the internal communication, all companies interviewed mentioned an effort to inform the employees regarding what the company has been doing. *"We do have specific subteams for human rights and for supply chain sustainability and also for climate change, and circular economy, so they are really focused on distributing the information in the group"*, I5. *"We meet with them a couple of times a year we formally meet (…) and that is where we get their support, and make sure we are on the right page, and we are able to educate them on some key achievements, that we have done as well what is happening in the world"*, I7. Some companies also mentioned the objective of educating their employees regarding sustainability topics. *"We create content to inform about what we are doing and then also to educate our employees for example about what are the SDGs, or how they can adopt more sustainable practices"*, I4.

Regarding target audiences, the focus target audiences of internal communication can be separated into two groups: 1) management and higher-level employees, and 2) lower-level employees. *"Leaders are the most important target audience. Because if the leader does not buy [a strategic target set] it does not work"* I1.

Regarding content, it is essentially transformed from the information which is already gathered for the sustainability and annual reports. This content is then transformed internally into three main content types: informational content (e.g. targets reached and goals set, what the company is doing regarding a topic, interviews with collaborators and specialists); educational content (e.g. what are the SDGs, how to be more sustainable, what sustainability means); and inspirational content (e.g. stories of success). *"We have content, for example, what the company is doing regarding the SDGs, and we ask*

for interaction. Or we also have short explanation videos and training for new employees with a presentation on sustainability", I4.

Regarding channels, there is a similarity of channels used by companies to communicate all aspects of their sustainability endeavors. All companies interviewed have intranet for communicating internally. *"We have an internal intranet for sharing information, and whenever we have a big announcement we will use that to share information"*, I8. Nonetheless, only half of the companies revealed a dedicated space within these channels for sustainability issues: *"we have our sustainability channel in our intranet. So, for people to have the possibility to gain information quite hopefully easily, and we arrange internal sustainability seminars quite frequently where our experts from different functions are telling us about their work, and how it relates to sustainability"*, I5. There are also training, workshops, town hall sessions, and at least three companies also developed apps with a gamified way of stimulating their collaborators to engage with sustainability topics *"There is a challenge in the app, it is a gamification to motivate employees towards sustainability topics and actions"*, I4.

Since not all interviews were done with individuals responsible for corporate communication, some of the questions regarding effectiveness measurement remained unanswered. Nonetheless, among the answers provided by the communication specialists, the most common forms of measuring the effectiveness of internal communication were reach and engagement tracking (regarding online content produced either for the website or social media), internal employee surveys both prior to and after the content is released, and behavior change (e.g. participation in volunteer work, donation and recycling behaviors).

To summarize:

- Objectives: inform, educate

- Target audiences: management employees, lower-level employees

- Content: Based on annual integrated or sustainability report, informational content, educational content, inspirational content.

- Channels: Intranet, email (newsletter), town halls, trainings, workshops

- Effectiveness Measurement: employee surveys, tracking reach and engagement, behavior change (e.g., participation in volunteer work, donation, recycling)

External controlled communication

The external communication methods of all companies in the G100 analyzed showed similarities. Due to external demands from investors and rating agencies, all companies interviewed mentioned their annual report as the main channel for external communication, as well as main source for content produced for external target audiences, as well as the company website; *"every rating agency wants information a little bit differently, it's very confusing and it's very time consuming to respond so lots of reporting. To be honest I've spent half of my year fully on reporting and then I would say half of the year supporting projects across the business to try to move us forwards in the areas where we could enhance our work"*, I7. According to the company sector, different strategies would apply externally. In all cases, the goal was to improve the overall brand image; *"Of course the brand image has a great importance. We recently went through a rebranding to make it clear our commitment to sustainability"*, I1. But in some cases, namely the retail and the banking sector, the goal was to sell their sustainable line of products or services; *"of course the ultimate goal is to sell products. But this is not an end in itself. We have a calculator that measures the impact of everything we plan and produce. If the impact of producing is higher than the profit we make, we don't even follow up with a product idea"*, I3.

Regarding objectives, all companies mentioned the importance of informing all stakeholders about what the company was, and was not, doing regarding their sustainability previously established goals. *"We place our communication everywhere, institutional publicity, to the final consumer, in soap operas… in the idea that it is all connected. (…). We know that it is an audience construction work. We want to be seen as a responsible, sustainable company"*, I3. Some of the companies mentioned the need to educate the customers about what sustainability is, and raise awareness about the topic[29], underlining that *"more than publicizing, it's [about] educating the customers [about what sustainability is]"*, I1.

Regarding target audiences, investors were mentioned as a key audience by all of the companies, as were stakeholders, such as suppliers and partners. *"Externally I think that investors are a really important, very important stakeholder group, as we are rated very much in different indices for instance (…). The dashboard we produced, it's also for the very active stakeholders. (…) It's about the sustainable supply chain for the raw material, so it's very important and this is something that is updated regularly by the raw materials, the function*

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29 It was possible to observe a correlation between educating the customers and the location of the company interviewed. In businesses located in regions and cultures considered highly sustainable (namely Denmark, Sweden), there was no mention of educating the final customer. Nonetheless, in businesses located in places with less sustainable knowledge or practices (namely Canada, Brazil), there was mention of the need to educate the customers.

and the communication there, so it's very important", I5. Final customers were also mentioned as target audiences, although not in all cases. "*I think that I can say that we are increasingly focused on getting information to our clients and to employees, those are two; and advisors, really important groups for us"*, I7.

Regarding channels, after the report, mass communication was mentioned by all as another way to communicate externally, both through TV channels and traditional newspapers; *"mainstream press business press, social media, and that business press video journalism, you know, CNN and CNBC, the big cable news shows and the mainstream press publications"*, I8. Social media was mentioned for external communication, and then further considered as a channel to both internal and external audiences, since the biggest part of the audiences of the companies on social media is composed by their own employees. Product packaging, when applied, was also mentioned as an important channel to communicate their sustainable values and initiatives *"On our packages, for example the line of products that came from a specific region and which raw material helped a local community, (…) we put that in our package"*, I3.

Since not all interviews were done with a member of a communication department, some of the questions regarding effectiveness measurement remained unanswered. Nonetheless, regarding measuring effectiveness of communication, all companies from the G100 who were able to answer, said that they track their brand reputation through following mentions online and in mass media; *"we have big brand reputation trackers, like Bloomberg, and we follow up mentions on the media and online"*, I6. They also do benchmarking, track reach and engagement of online content, and track customer behavior towards the increase of sales of sustainable lines of products that they may have, when it was the case.

To summarize:

- Objectives: reinforcing brand image, educating (when applied), informing

- Target audiences: investors, stakeholders, final customers

- Content: Based on annual integrated or sustainability report. Targets and goals reached, association with brand image, what the company is doing regarding selected topics.

- Channels: Report, mass media, social media (with a focus on LinkedIn), meetings with politicians and NGOs, product packaging.

- Effectiveness Measurement: market research (benchmarking), brand reputation tracking (online and in mass media), tracking reach and engagement, behavior change (e.g., sales of sustainable products)

Communication Strategy

Although the interviewed companies may not have a specific place to communicate sustainability– other than the sustainability report and platforms – it was possible to notice a common trend among the different businesses to communicate sustainability-related topics. The report was commonly used not only as a communication and transparency tool, but also as a management tool to guide the information gathering from the diverse sectors of the company. From the sustainability or annual report, the contents were selected and transformed into compelling stories according to the target audience they were aiming at.

"That is our baseline [topics worked on the GRI reports are used as contents to develop further communication]. That is how we collect everything, and then we use communication strategies to develop storylines to make them more compelling, and make sense out of the data dump basically", I8.

"We certainly pay attention to frameworks when it comes to reporting and then obviously from there you reach different groups differently, because the investors are gonna want to see things in one way and we recognize that. (…) So we are always trying to improve that, as how we get the right information to the investors in the easiest way, and then, on the other side, how we engage employees, advisors, and our clients, to care about these issues in a more engaging way. They want stories and they want more social media, so there are definitely different audiences that take it in different ways for sure", I7

Appendix V (Findings after interviews with companies outside G100)

Corporate Strategy

Regarding corporate strategy, both companies interviewed outside the Global 100 index showed similarities regarding sustainability being a part of the business DNA. Both companies mentioned sustainability as a fundamental part of the business strategy and said that the business strategic decisions always considered sustainability as an important topic *"since the beginning the engineer that created the company defined that it could not look only at the financial part (…). It is very intrinsic; we don't look at business strategy without looking at sustainability strategy"* I13. *"We define sustainability as using natural resources without compromising the future generations"*, I14.

One difference regarding corporate strategy is that these two companies outside the Global 100 did not mention a strong focus on reporting according to several different preexisting sustainability frameworks. They mentioned only two main frameworks used, the GRI and the SDGs.

Corporate Structure

Regarding corporate structure, the organization of the companies outside the Global 100 was similar to the ones within the index. This shows a prevalence of the corporate organization sustained by a structure that is similar across companies that seek sustainability as an important value. *"The sustainability department answers to the CEO and is divided in three areas"*, I14. *"We are a holding company, so each one of our companies have their own structure. Depending on the company it is more or less developed. Here we have a sustainability department that answers to the CDO and consolidates the information of all other companies in the group"*, I13.

Corporate Culture

Regarding corporate culture, both companies said it is inside their culture the idea of sustainability as intrinsic to the business DNA. *"Here we have the perception that sustainability at our company is of the responsibility of all collaborators"*, I14. However, the I13 disclosed the difficulty to reach all levels of employees within the company, confirming the previously identified argument that showed a focus on educating higher level employees, within Global 100 companies. Targeting these specific workers denotes the importance of a top-down approach when trying to improve overall

awareness, and knowledge, about the importance of sustainability for the company culture and values. *"In internal matters, this is a strategy we want to attack. In the holding, as we are just a little quantity [of collaborators], all people see sustainability as equal to any other value"*, I13.

Behavior

Regarding behavior, both companies declared that the employees engage in sustainability initiatives, mostly in social activities, specifically related to volunteer time. Nonetheless, the bigger company disclosed that employees are not aware of all the initiatives the company does regarding sustainability, because there are many initiatives happening across the company (and its subsidiaries). *"We do a lot of different things. I guess most of our collaborators do not have a notion of the breadth of what we do regarding sustainability"*, I13. The smaller company had a different perception, where, according to them, all employees are aware of the importance of sustainability and that they are part of that within the company. *"Sustainability, in our company, is a responsibility of all collaborators (…), people that want to come work with us exalt this characteristic we have"*, I14. This reinforces the previous perception reached with the Global 100 companies that bigger companies have challenges regarding communicating sustainability to all levels of the corporation, and thus effectively promoting a change in behavior.

Corporate Communication

Regarding corporate communication, there were similarities regarding objectives, channels and target audiences. Nonetheless, the communication processes in one of these companies seemed less structured and more intuitive than the Global 100 companies, especially at the bigger company *"at this moment we don't communicate sustainability alone to our collaborators. We have a newsletter with sporadic topics regarding sustainability"*, I13. I14, despite having a clear communication process, showed differences on the process itself *"we think in a strategic way where the involvement of our stakeholders must be incentivized. Here we don't have an area called external communication, we have stakeholders and for all of them what we have is a series of initiatives that we implement with them"*, I14; and on the definition of what they consider to be sustainability *"here we didn't adopt the definition of sustainability according to the triple bottom line. We understand sustainability as the creation of shared value, by Michael Porter"*, I14.

Moreover, in the bigger company, there was no mention of effectiveness measurements in the longer-term regarding brand perception, education and information. In the smaller company,

though, they mentioned having a focus on measuring the sustainability impact and, also, having specific communication measures *"First we measure the impact of the sustainability. The communication is instrumental, not an end in itself. It is fundamental, but always instrumental to reach the sustainability objectives"*, I14.

Appendix VI (Findings after second iteration)

First Module – Sustainability Frameworks

In the first module, where the sustainability frameworks were evaluated along with its influence on the other two modules, hypothesis one through three were tested. The H1 was confirmed, with observations. CDP, GRI, TCFD and SDG were considered as important frameworks followed by the companies. Corporate Knights and DJSI were not considered important by both companies interviewed. I13 mentioned that this year they are starting to use Sustainability Accounting Standards Board (SASB) as well as the aforementioned sustainability frameworks. I14 mentioned the use of the International Integrated Reporting Council (IIRC) for the design and definitions of their reporting.

H2 was tested and confirmed without observations. Regarding H3, the companies said they normally do not use the frameworks directly as sources to produce contents internally to the collaborators, nor externally to other stakeholders.

Second Module – Strategic Guidelines

In the second module, where the strategic definitions here tested, H4 was tested and confirmed with the observation that not everything that is defined on the strategic level is disclosed in content formats and in reports. Micromanagement strategic decisions normally are not disclosed separately but compiled to produce the gathered information to be reported. Another observation was that, in the case of I14, the filters are made by the sustainability team and then only confirmed by the management *"it has to do with technical knowledge needed to do this filtering"*, I14.

Third Module - Instrumental sustainability communication production

In the third module, the instrumental items were tested in hypothesis five through twenty. H5 was tested and confirmed without observations. I14 explained that in their company the communication process happens in a different way, therefore, in case of H6, they do not use the report as a main source, but they have a separate communication plan, only to create content inspired by the report *"there is a communication plan of the annual report. But sustainability communication extrapolates the annual report"*, I14.

Regarding H7, the definition of objectives is also different for I14. Their main objectives defined for the communication are: "*comprehension, support and strength and engage*", I14.

Regarding H8, the companies mentioned that sales increase, in their case, is not considered a micro-objective but a consequence of the brand and positioning. Since sustainability is viewed by the company as embedded in the DNA, according to I13 "*We don't want to be sustainable because we want to sell. We want to be sustainable because we must be, otherwise there will be no more planet to live in*". Moreover, according to I14, promoting behavior change is also an important micro-objective.

Regarding H10, I14 explained they do not separate collaborators according to their level in the company. Moreover, they said they would add universities and external entities as important target audiences. H11 and H13 were tested and confirmed without comments. Regarding H12, the observation made is that product packaging is more than just a branding channel, it is considered to be an educational channel as well, especially for customers to be confronted with sustainability concepts through them.

Regarding H14, the observation made was about the possibility of format conjugating. Despite the SCF list of formats being considered sufficient, links were also mentioned as an important format in online content development. I14 said they would add print formats and explained that, in their case, they specify more thoroughly the how, specifying whether it is a case study, gamification, a research, or a brochure, for example.

H15 was tested and confirmed with comments that I14 would add more items such as downloads, clicks, source, email opening, sharing, number of participants, satisfaction with content. Regarding H16, the comment made was that I13 is not yet able to monitor behavior change.

The last four hypotheses H17 through H20, related to the efficacy measures made after the communication process is developed, were tested and confirmed. Nonetheless, I13 admitted not having yet enough clarity regarding the process after the communication is made. I14 mentioned that the most important efficacy measurement is whether the communication allowed the strategically defined sustainability objectives to be reached or not. Moreover, they said they would put behavior change in efficacy measures.

A final comment made by both I13 and I14 is that implementation has to appear in the SCF in order to clearly show this step to whomever is reading and interpreting the framework.