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Building values-based innovation cultures for sustainable business impact

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Abstract: Human values of different stakeholders have been recognized to drive and positively affect innovation efforts. However, too little is known how values-based innovation can be facilitated, which barriers emerge and which challenges persist to turn stakeholder values into action. We need to understand how to establish resilient innovation cultures that reliably create economic, social and environmental benefits. The paper introduces the terminology, theoretical foundations and research design of the European IMPACT project to address these research gaps, and discusses implications for teaching and coaching. It introduces a values-based innovation maturity model and present results from an integrative literature analysis. Results include a comprehensive overview of the values, barriers, and good practices and methods to create values-based innovation cultures. Initial insights show how to facilitate the creation of values-based innovation cultures with a positive impact on societal challenges.

Keywords: values-based innovation, corporate values, innovation culture, sustainability, good practices and innovation methods, ethnography, co-creation, case studies, maturity model, innovation management education.

1 Values-Based Innovation Cultures for Sustainability

The great societal challenges (for instances formulated in the UN's 17 Sustainable Development Goals) and European strategies like the Green Deal require an overhaul of economic activity and education. Almost every company and organization is asked to adopt sustainability goals as parts of its mission and innovation management. Some companies have explicitly adapted their normative directives to not just comply with regulation, but to spearhead required changes. Few have successfully established inherent practices in their organizational culture and manage innovation based on values of corporate sustainability.

How to translate sustainability-oriented strategies into daily practices and a values-based innovation culture? While it took almost 30 years for human-centred design principles (and associated disciplines such as usability engineering and design thinking) to permeate organizational innovation practices, values-based and sustainability-oriented innovation just recently entered the educational curricula, academic discourse and practitioner's attention. Innovation practitioners, facilitators and educators are not yet well prepared to drive values-based innovation as it requires new and different practices, methods and criteria. This is provoking new, unsolved challenges such as dealing with heterogenous stakeholder groups, reframing priorities to avoid trade-offs and modelling long-term consequences. These new challenges require stakeholder management practices such as reframing (Freeman 2010, 8) and responsible and sustainable innovation practices (such as anticipation, reflexivity, inclusion, deliberation, responsiveness and knowledge management; c.f. Lubberink, 2017), but also new practices and methods to mediate among stakeholders with dissimilar values. These new practices will ensure a shared understanding and commitment among stakeholders as well as a solid integration of values-based and normative evaluation criteria throughout the different stages of innovation or entrepreneurial endeavour. The scarcity of solid experiences and missing established standard, the promoters of values-based and sustainability-oriented innovation currently

rely on learning by doing while missing proven methods and well-documented and structured resources to learn from, to teach or to train good practices.

The IMPACT project (co-funded by the European Erasmus+ Knowledge Alliance Program) was designed to address these challenges and to empower the creation of values-based innovation cultures for a sustainable business impact. This paper describes its research design, which includes an integrative literature review, expert interviews, ethnographic research and co-creation workshops. Throughout the project we assemble and aggregate distributed knowledge on good practices and methods from leading European firms and academics. Field studies at different organizations reveal hidden drivers, barriers and challenges for establishing values-based innovation cultures based on empirical evidence. Thereby, we create a rich and reliable resource of knowledge how to introduce and manage innovation based on values of sustainability on a daily basis in education and companies.

2 The need for research and education on values for sustainable business impact

The challenge to provide proven practices and methods to establish values-based innovation cultures

European companies and entrepreneurs have started to discover sustainability challenges and human values of different stakeholders as drivers (rather than constraints) for innovation and entrepreneurship. Despite several lighthouse projects, most companies fall short in translating normative directives into values-based practices consistently. Some good practices of sustainable innovation and values-based entrepreneurship (e.g. to contribute to SDGs through innovation in digital products and services) and initial methods to teach and establish them exist. However, related knowledge is nascent and dispersed across organizations, business leaders and academics. The scientific discourse is dominated by case studies on the one side and macroeconomic perspectives on the other, therefore lacking actionable insights on an organizational level.

Companies are supported by European agendas aiming for more a sustainable, circular economy, responsible innovation and digitalisation with European values. Addressing these challenges requires the engagement of schools, training institutions and university supported by EU networks of teacher-training programmes (EC 2019, 19). Educators are expected to prepare students for a more sustainable innovation and entrepreneurial culture but cannot draw on their own experiences or from a mature body of material. Therefore, facilitators and educators still seek proven methods and well-documented and structured resources to learn from, and to teach good practices.

In sum, innovation practitioners, facilitators and educators are not well-equipped to drive sustainability-oriented innovation (SOI). The challenge to do so requires managers and educators to develop new, responsible practices for facilitating sustainability-oriented ideation, and integration of values-based heuristics and normative evaluation criteria in the innovation cycle. Based on the analysis of this situation, the IMPACT project addresses three needs and challenges:

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- The need to exchange and aggregate knowledge about SOI practices: How to empirically generate, aggregate and disseminate knowledge about good practices, barriers and methods in sustainability-oriented innovation and entrepreneurship (SOI)?
- The need to establish sustainability-oriented innovation cultures in European business: How to facilitate and train values-based and sustainability-oriented innovation and entrepreneurship practices?
- The need to prepare students and teachers to deal with sustainability-related innovation challenges: How to create advanced education methods and real problem-based materials to teach and learn SOI?

Definition of the notions of values, values-based innovation, innovation barriers, practices and methods, and culture

In order to create a common ground for the research design, we need to define the central terms for this project: The notions of (stakeholder and employee) values and values-based innovation barriers, practices, innovation methods, (innovation) culture as well as the systematic case study approach. For instance, we need to distinguish between human values and building values-based innovation culture on the one side, and the (economic, social, environmental) value-add as an intended outcome of innovation-related activities on the other side.

Human Values as notions of the desirable and "ordered systems of priorities" (Schwartz, 2012) are one essential factor, acknowledged for their decisive role in innovation management in general (e.g. IJIM, 2021; Meissner & Wulf, 2021; Breuer & Lüdeke-Freund, 2017a) and SOI in particular (Lubberink et al., 2017; Rauter et al., 2017; Earney & Krishnan; 2019). Summing up the psychological discourse, Frey (2016) defines values as (1) concepts or beliefs (2) about desirable end states or behaviors that (3) go beyond certain situations or events, (4) guide the selection or evaluation of behavior or events, and are (5) structurally ordered according to their relative importance. As Schwartz (2016) has stressed that the relative importance of multiple values guides action, values have been conceived as "associative networks" (Feather 1996) linking each central value to different attitudes, beliefs, knowledge structures, and other values and networks

Since values are ubiquitously found across all levels of social life (individual, organizational, institutional, societal, and global, c.f. Agle & Caldwell, 1999), they provide decisive references for the understanding and integration of stakeholders both within and outside an organization. Shared values among stakeholders establish a common ground for collaboration or cooperation. Looking through the prism of stakeholder theory, which has played a pivotal role in discourses on corporate sustainability in the past two decades (Freeman & McVea, 2001; Parmar et al., 2010), the values-based cooperation is seen as a prerequisite for effective sustainability management (Hörisch et al., 2014, 341; Breuer & Lüdeke-Freund 2019).

Values-based innovation (management) deals with human values as sources of and drivers for innovation. It analyses the potential of values to integrate diverse stakeholders into innovation processes, to provide a heuristic for ideation and evaluation, and to direct collaborative efforts.

When values are explicitly formulated, for instance, as part of organizational vision, mission, or core values statements, they turn into normative orientations (Breuer & Lüdeke-Freund, 2017a, 20). Such officially proclaimed values can serve as principles that guide employees' decisions and actions in accordance with a sustainability-oriented innovation strategy. However, in some cases officially proclaimed values may remain detached from the personal values held by employees and turn into vague "cultural stamps" that cannot translate into a framework for action (Burnes & Jackson, 2011; Ludolf et al., 2017; Bansal, 2003). Therefore, effective sustainability-oriented innovation management requires the implementation of strategies that ensure sufficient alignment between the personal values of employees and those pursued by the organization. One basic assumption of the IMPACT project is that a values-based innovation culture is required to achieve a sustainable, positive business impact on societal challenges, whereas isolated initiatives or eco-innovations will not suffice to ensure desirable outcomes and to avoid unintended consequences in the long term. In line with the projects title, its key question is how to facilitate such a culture.

Innovation barriers can be defined "as constraints or factors that inhibit innovation" (Hjalmarsson et al., 2014, 2), or as "an issue that either prevents or hampers *innovative* activities in the firm" (Sandberg & Aarikka-Stenroos 2014, 1294). In the context of this research, we refer to the barriers found around sustainability-oriented activities based on values of the organization and its decision-makers. According to Hadjimanolis (1999, 561) research on innovation barriers aims "to find out about their nature, origin, and importance" and to "identify their point of impact in the innovation process and to measure their effects or consequences". Thus, the analysis of barriers to innovation can indicate what are the most critical impediments that limit innovative activity in an organization, i.e. "which factors most constrain innovative activity among the myriad factors potentially affecting innovation" (Hölzl & Janger, 2014, 2).

Recent research has emphasized that organizational culture and values play an essential role as both sources and mitigators of SOI barriers. For instance, Bocken & Geradts (2020, 9f) found that institutionalized rules, norms, and beliefs that emphasize shareholder value, uncertainty avoidance, and short-termism as opposed to a balanced integration of stakeholder values, lead to strategic and operational barriers that impede the adoption of SOI practices. In addition, in a multiple-case study of 25 companies complemented with a systematic literature review, Guldmann & Huulgaard (2020) found that some of the recurrent barriers to adopting circular business model innovation include the lack of sustainability orientation in organizational structures and organizational values, as well as the necessity for a fundamental shift in corporate culture, policies, and market engagement. Notably, Stubbs and Cocklin (2008) and Rauter et al. (2017) found that a sustainability vision, personal leadership, sustainability values, and collaboration with stakeholders are among the factors that help to overcome barriers to sustainable business model innovation.

Practices: Bourdieu's introduced his theory of practice as "a science of dialectical relations between objective structures […] and the subjective dispositions within which these structures are actualised, and which tend to reproduce them" (Bourdieu 1977, 3). He understands practice as a function of the interplay between three interdependent concepts: capital (including economic, social, cultural, symbolic, and statist forms of capital), habitus (a collective system of dispositions held on individual, collective, and social levels) and field (a structured social space where people enact their dispositions with reference to specific rules).

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According to this perspective, practices are formed as a consequence of the interplay between the structures of the habitus and the structures of the field, which occur on both micro (individual) and macro (social) levels. Andersen (2017, 95 ff) used ethnographic research in combination with Bourdieu's theory and Actor-Network-Theory (Latour, 2005) to analyse how current unsustainable practices in the textile and fashion industry are reproduced and how processes of reformation and change towards sustainable practices take place. In consideration of the interconnected nature of sustainability, she states that by bridging the macro and micro levels of analysis Bourdieu's theory provides a strong starting point for analysing both micro and macro aspects of SOI practice in the fashion industry (ibid, 113).

Since organizational and employee values influence how employees interpret organizational practices (Schneider et al., 1996, 9), values can mediate the adoption of SOI practices in organizations. Bertels et al. (2010) reviewed effective practices for embedding sustainability in organizational cultures and found that a consideration of values is essential to implementing several of those practices. Examples include: incorporating sustainability values into the organization's mission, vision, and values statements, expressing recognition towards employees who enact the organization's sustainability values; enacting sustainability values by senior managers to model employees' behaviour; recruiting candidates aligned with the firm's sustainability values; promoting employees with sustainability values into higher positions; framing sustainability in ways that reflect the organization's values; and developing new sustainable products in line with the organization's espoused values.

Innovation methods refer to widely established, reproduceable procedures to facilitate innovation and according practices. The IMPACT project aims to integrate and elaborate upon existing knowledge in order to provide actionable facilitation tools and methods on how to involve all relevant stakeholders in a sustainability-oriented innovation process. It also aims to provide methods that facilitate SOI by enabling collaborative review and redefinition of cultural routines, implicit values and hidden assumptions. To achieve this, the IMPACT project adopts the theoretical perspective of values-based innovation management, which reframes or adapts existing methods (e.g. normative scenarios, or values-based business modelling c.f. Breuer & Lüdeke-Freund 2017a, 176ff), or creates and applies dedicated, new methods (such as the IBM Values Jam; Yaun 2006). Through the use of such methods the values and needs of relevant stakeholders can be identified and consequently established as a foundation for values-based innovation activities.

Culture and innovation culture: There is broad agreement that in order for organizations to become more sustainable they need to adopt and embed an enabling culture (e.g. Engert et al., 2016; Globocnik et al., 2020; Baumgartner, 2014; Linnenluecke & Griffiths, 2010; Islam et al., 2019). Since values are considered as one of the constitutive layers of organizational culture, along with assumptions and artifacts (Schein, 2010), the establishment of SOI cultures depends largely on the appropriate consideration, formulation, adoption and enactment of sustainability values by organizational members.

According to Schein (2015, 9) "[d]efining values and norms, turning these into shared rules for behavior, is de facto creating and managing culture". However, although an enabling culture is easily appreciated as a requirement for adopting sustainability-oriented innovation in organizations, executives often fail to change culture as they approach the development of innovation capabilities, through structural and institutional interventions rather than addressing cultural variables such as values (Gedvilaitė & Pădurariu, 2014, 9).

Innovation cultures can be defined as social environments that enable staff members to develop ideas and implement innovations (Meyer, 2014, 8). One way to establish innovation cultures, can be to identify their constitutive elements and facilitate the assimilation of relevant elements in a given organization (Dombrowski et al., 2007, 191). For example, Dombrowski et al. (ibid) distinguish eight elements of organizational innovative culture: innovative mission and vision statements, democratic communication, safe spaces, flexibility, collaboration, boundary spanning, incentives and leadership. However, studies that attempt to identify the elements constitutive of SOI cultures are still missing and future research is required to address this gap.

Systematic case study approach: While case studies that review good practices, barriers, methods and values in the context of SOI have been reported, the existing knowledge in the domain remains unsystematised. Therefore, the IMPACT project concentrates on generating new and systematizing existing knowledge about the above-mentioned concepts through the analysis of cases and examples found in the literature as well as sourced from partner companies involved in the project. This multiple-case study approach (Yin, 2014) allows to analyse and compare the investigated phenomena within each setting and across settings, contributing to high robustness and reliability of results (Baxter & Jack, 2008, 550).

3 Research Design

IMPACT applies a coherent methodology with a comprehensive set of sequential activities to meet the needs and challenges for SOI business practices and education. Partners and stakeholders engage in collaborative research, co-create and build up a validated toolbox of methods and materials for facilitators, trainers and teachers. IMPACT then turns the classical learning cycle to "see one, do one, teach one" into a collaborative, practice-based, co-creative and sustainability-oriented process. The workflow proceeds from exploration and understanding, to facilitation and education with an iterative refinement of intermediary results (see fig. 1).

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Figure 1 Sequence of research activities to investigate barriers, practices, methods and exemplary cases for building values-based innovation cultures

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We start with understanding the current situation through expert interviews and contextual inquiry. Then, we design and validate interventions and facilitation methods to address the identified challenges. Mainstreaming SOI education, we develop new educational methods. For quality assurance of project outcomes, IMPACT consistently adopts knowledge exchange and co-creation among consortium partners and a wide range of stakeholders from the associated expert panel and key influencers.

Expected results include aggregated cases, a repository of facilitation and educational methods and insights and guidelines how to develop a mature working culture dedicated to values of corporate sustainability within an innovation maturity framework.

1. Cases of **good practices** – examples for enhancing corporate sustainability through cultural development (e.g. contributing to the SGDs) including internal practices, external stakeholder integration, strategic elaboration and implementation of sustainable business model patterns, and impact management.
2. **Facilitation methods** to involve internal and external stakeholders in innovation-related activities, but also in the collaborative review and redefinition of cultural routines, implicit values, and hidden assumptions; facilitation also involves tools and re-model sustainable business and to collect, aggregate and provide information and knowledge to improve sustainability performance.
3. Methods for **teaching and coaching** sustainable innovation and entrepreneurship promote active debate of sustainability-related facts, challenges, and solutions.

We focus on **four thematic areas**: 1) internally focused organizational development, 2) external stakeholder integration, 3) sustainable business design and 4) impact management.

1. **Internal development**: Establishing sustainability goals as organizational objectives and daily practise relies on active contributions of employees. Companies are experimenting with different formats to raising awareness, sensitizing, promoting creativity and enabling new work based on shared values within the workforce.
2. **External stakeholder involvement**: Just like sustainability considerations themselves, external stakeholders and their different values do not just establish boundary conditions, but also engage as drivers and enablers for innovation and entrepreneurship. Appropriate practices are required to integrate stakeholders a constitutive moment of cultural development.
3. **Sustainable business modelling**: Even though first collections of sustainable business model patterns (Lüdeke-Freund et al., 2018) and tools (Breuer et al., 2018) been documented, their utilization for sustainability-oriented business model development and cultural alignment is an ongoing challenge for organizations.
4. **Impact assessment and reporting:** Learning from one another, project partner should improve their ability to manage values of different stakeholder and to create a positive impact through innovation. This includes establishing organization specific impact management practices and measures to project, evaluate and demonstrate commitment to normative (sustainability) goals in line with established reporting standards.

The initial exploration starts with a literature review and expert interviews to better understand, what is already known, what needs further differentiation or validation, which available theoretical concepts can help to explain some of the empirical findings, and what is not yet covered – research gaps with the potential to generate new insights to look for in the ethnographic study.

Literature Review

We conduct a systematic literature review to understand the state of the art of sustainable innovation and sustainability-oriented innovation literature from a values-oriented lens. The search strategy started with a background search to explore the literature and define the keywords. The key words and search string were developed and refined in collaboration with five independent researchers belonging to the IMPACT project. Given the ample nature of the topic that involves different knowledge areas we concentrate our search in the Web of Science data base. The final string of the search was TS=values AND TS=(sustainable-innovation OR sustainability-oriented-innovation AND TS=(culture OR practices OR methods OR challenges OR education OR barriers OR design OR engineering OR development OR value-sensitive-design OR sustainable-design OR footprint OR circular-economy OR materials OR waste OR entrepreneurship).

The initial number of articles retrieved were 224. Five researchers independently screened the subset of the articles on the title and abstract for appropriateness based on inclusion and exclusion criteria (geography, language, and business context applicability). After several rounds we eliminated the articles where the researchers fully agreed on the exclusion criteria.

A total of 58 papers was selected to analyse in depth. In line with Rycroft-Malone et al. (2012) we started by extracting the data and clustering it into evidence tables according to the initial objectives for reviewing the literature. Therefore, we extracted the values, barriers, challenges and practices related to values-based innovation strategies found in the literature. We noted the empirical or conceptual nature of the papers as well as the methods, theories, and limitations involved. Each researcher ranked the papers according to a quality rate.

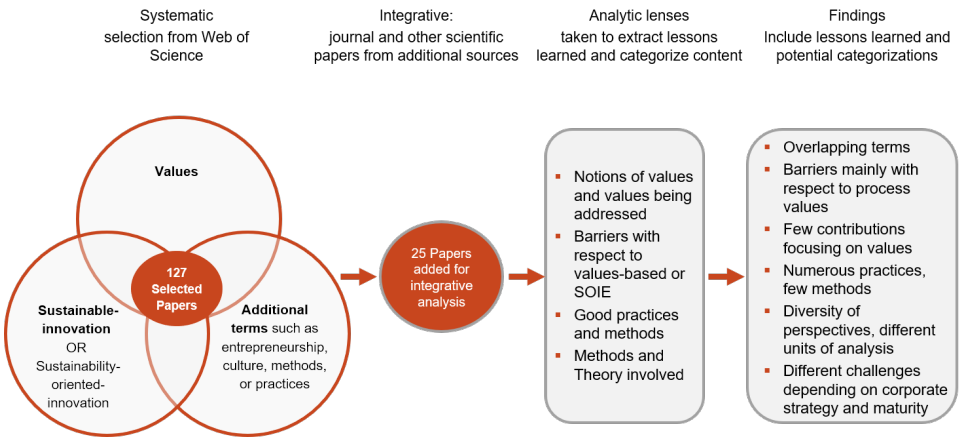

Figure 2 Literature review approach

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The literature on sustainable and in particular on values-based innovation is relatively young and we observe a wide variety of complementary perspectives in the body of research. A holistic and common framework of analysis is still missing from the literature. Five key areas of research dominated the publications: Business Models, Stakeholders management, Cultural and Industry factors as well as Technical and Processes related papers. Some preliminary highlights of the literature review are described below.

In the first place, authors recognized the significant overlap of different constructs in the literature such as: sustainability-oriented innovation, sustainable innovation, responsible innovation, environmental innovation and social innovation leading to different nomological networks and units of analysis.

Second, values are rarely explicitly researched as drivers or inhibitors of innovation (examples include Rindova & Martins 2018; Breuer & Lüdeke-Freund 2017a), and works on responsible innovation (e.g. Lubberink et al. 2017) have identified this as a research gap. Instead, they are usually implicitly considered by the barriers and practices described in the sustainability-oriented innovation processes found in the case studies. For example, a common barrier declared for values-based innovation is the resistance to change where the underlying values behind this barrier might refer to risk-avoidance, short term focus or lack of trust (Brones et al., 2020).

Interestingly, two different perspectives are adopted for the analysis of the values in the innovation process: a normative approach (von Schomberg, 2013) versus a procedural approach (Stilgoe et al., 2013). The normative approach or entity model of values assumes values as ‘nouns’, therefore values ‘are there’, pre-given, relatively stable, ready for reflection. The procedural or practice-based approach instead, assumes that values are evaluative devices, and therefore tied to doing, dynamic and context specific being reinterpreted as conflict arise. The second approach proposes four dimensions to help reinterpret the meaning of the organizational values such as anticipation, reflexivity, inclusion and responsiveness. These different approaches, while not mutually exclusive, have significant implications for the research design of the studies and their outcomes since the practice-based approach would not set much confidence asking stakeholders directly about their values as it is expected different interpretations. Therefore, practice-based approach studies and builds on valuation in action (Boenink and Kudina, 2020, p. 461)

Third, different levels of unit of analysis are adopted, such as the company perspective versus the company function perspective (e.g. procurement), external versus internal stakeholder engagement as well as diverse contextual factors (industry, geography, function in the organization or type of firm).

Fourth, it appears that the barriers and practices described in the literature might be dependent on the company sustainable business model (i.e. the level of commitment to the sustainability impact) or in the firm’s maturity level with respect to managing innovation and organizational values.

The heterogeneity of these approaches makes it difficult to conclude the best universal practices and recommendations for organizations to achieve the desired values-based approach to innovating. Therefore, we will propose a taxonomy of common challenges found and a set of recommended alternatives to research and best practices that will help organizations and educators to more effectively implement a values-based innovation approach.

Expert Interviews

Semi-structured expert interviews will be conducted with entrepreneurs and employees in different functions, hierarchy levels, and relations to innovation management. The objective of these interviews is to learn about values and innovation culture in the respective organization, about innovation barriers and good practices, and their impact on economic, social, and environmental outcomes,

50 semi structured interviews will be conducted among the industrial partners of the consortium belonging to different industries (i.e. energy, technical inspection, a multinational conglomerate and a cleantech cluster). The objective will be to understand what organizational values are perceived, how broadly are they shared and how do these values foster or prevent sustainable innovation output to happen. We will analysis in depth concrete situations where difficulties have been experienced by the participants in order to understand how broadly shared is the sustainability culture within the organization. Finally, we will compare the normative values of the organizations with the tacit values emerging from the interviews to understand the existing gaps and barriers. By cross researching different functions and industries, we will gain knowledge arising from different contexts. We will complement these insights with 40 additional external interviews to complement and or/confirm the internal findings.

Ethnography

In line with Andersen's (2017) study of SOI practice in the fashion industry, IMPACT adopts an ethnographic methodology as a suitable approach to analyse both the micro (individual) and macro (social) aspects of SOI. The ethnographic methodology as such focusses on cultural phenomenon, here on organizational innovation culture. As in the other research activities we will zoom in from innovation to cultures, to cultures based on values that are heading for a positive sustainability impact. Several empirical questions will be addressed in the ethnographic research based on the overarching research question: "How do respondents co-create an innovation culture based on personal and organization values to achieve sustainable business impact?"

Interpretation of ethnographic data refers to "providing an explanation of the meaning of research results that is grounded in the experience of researchers and research participants, embedded in empirical evidence, and informed by the theories offered by relevant disciplines" (LeCompte & Schensul, 2012, 16). Since we are taking the viewpoint of the industrial partners and respondents in the empirical part, the particular values depend on them. As long as they see a relation to sustainability-concerns it depends on them weather they adopt / pursue responsibility as a value, or safety, or well-being, or resource efficiency, or industrial principles of circular economy or equity and justice. By interpreting respondents' self-reports and behaviours researchers will not only identify recurring patterns of work-related habits, rituals, practices, needs and perceived barriers, but will look beneath the surface to inquire about the respondents' explicit and implicitly held values that underlie such dispositions. The interpretation of data will also allow to identify how respondents' values are differentiated and arranged within their ordered systems of priorities and what are persistent tensions between the participants' values and the different factors that prevent them from acting according to those values (Breuer & Lüdeke-Freund, 2017a, 191).

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Documentation of case profiles from the ethnographic research will contribute to a database with concrete examples and best practices for enhancing corporate sustainability through cultural development. This database will include internal practices, external stakeholder integration, strategic elaboration and implementation of sustainable business model patterns, and impact management

Co-Creation

Prior research has shown that values can provide a solid foundation for initiating and strengthening collaboration, cooperation and co-creation among diverse stakeholders. Values that are shared among stakeholders or that can be related in the context of overarching values within the stakeholders' "ordered systems of priorities", as which values have been defined in social psychology (Schwartz, 2012), help to establish a common ground for aligning efforts and pursuing shared goals (Breuer & Lüdeke-Freund, 2019). Moreover, since values underlie both personal and organizational identities (Hitlin & Piliavin, 2004, Ravasi & Schultz 2006), their potentials can be harnessed to trigger and enhance collaborative value creation and capture for sustainability (Oksam et al., 2020). For example, building a common identity among stakeholders (e.g. through redefinition of normative statements such as visions and missions) is seen as an essential prerequisite for effective flow of knowledge across innovation partners (Dhanaraj & Parkhe, 2006, 662).

Building on this understanding of values as enablers of stakeholder collaboration, the IMPACT project uses co-creation workshops (Grönroos & Voima, 2013) to address selected barriers to values-based innovation and establish according innovation cultures within the industrial partner organizations. As a result, we expect to produce a "Sustainable Innovation Practices Toolkit" (SUIT I), containing values-based co-creation methodologies, that can unveil how internal and external stakeholders can be effectively involved, first, and then effectively trained. This compendium will include facilitation tools to diagnose and model sustainable business and to collect, aggregate and provide information and knowledge to improve sustainability performance. Overall, the toolkit aspires at routing people toward a professional metamorphosis, making them sustainable oriented innovators, whatever are their tasks, by means of a new mindset, skills and practical tools. The aforementioned co-creation process will be a key factor in delivering a product truly customized onto the target basin, hopefully guaranteeing a high success rate in building a new generation of SOI professionals.

Education

Education has a major role in equipping both students and professionals with the necessary knowledge, skills and attitudes to effectively manage SOIs. However, education in innovation and entrepreneurship has traditionally emphasized topics such as creativity and strategic implementation rather than management for sustainability (Hsu & Pivec, 2021). In turn, values and their importance for sustainability education have formed a separate field of research (e.g. Lewis et al., 2008; Smyth, 1996; Frey 2016), which may offer valuable but still latent implications for teachers and coaches of innovation. Some recent publications have acknowledged this potential and contributed to bridging the gap in our understanding of the relationships between values, sustainability and entrepreneurial education.

The didactic approach and educational materials of the IMPACT project address this gap and aim to develop students' competencies, defined as knowledge, skills, and attitudes for SOI. This will build upon the concept of ESD (Education for Sustainable Development) and further develop it by focusing on values-based innovation. Applying this approach to a wide array of disciplines requires from trainers and facilitators professional development of competencies framework (Strachan, 2018): (1) dispositions related to the view of education, (2) personal and professional attitudes, (3) skills for professional practice and (4) core knowledge and understanding. Lans et al. (2014; Strachan 2018) include seven key competences in their competence framework for sustainable entrepreneurship, including system thinking, embracing diversity and interdisciplinarity, foresighted thinking, and strategic management. They also refer to a responsible action and interpersonal competence to engage for sustainability, and to the normative competence as an "ability to collectively map, specify, apply, reconcile, and negotiate sustainability values, principles, goals, and targets" (Wiek et al. 2011, 209). This capacity is based on normative knowledge and methods (e.g. multi-criteria assessment and visioning), and enables a collective assessment of present and future system states as well as the creation of sustainability visions (ibid.). The *values-based innovation curriculum* builds on these preparatory works to include a competence of enabling values-based cooperation, overcoming innovation barriers and acquiring practices and methods to serve different stakeholders' values.

Knowledge alliances such as the IMPACT project "have proven to be innovative and rich settings for developing ESD-based curricula in collaboration with stakeholders from outside the university" (Cincera et al., 2018). For ESD curriculum development it is recommended to promote a culture of dialogue, share team members' goals and facilitate the group dynamics in order to develop a supportive group context, as well as the on-going learning experiences to facilitate group learning. In line with these recommendations our teaching approach will use participatory methods like case studies and exercises to apply selected methods to real challenges (documented from the project or current challenges from industry collaboration). This may lead to applying entrepreneurial challenge-based learning and learning by discourse (Lindner, 2018).

As further methods for teaching and coaching values-based innovation, we will repurpose educational methods and develop new techniques for active debate and learning of sustainability-related facts, challenges and solutions (summed up in a second toolkit SUIT II). Replicable half-day modules on "Sustainable Innovation Practices" will be developed to provide action-oriented (e.g. gamified) methods and introduce and disseminate good practices as part of Continuous Professional Development course for trainers & facilitators and as an elective module for students.

Short term benefits for higher education institutions include university-industry cooperation, co-creating new learner-centered methods and real-problem-based materials together with companies' partners e.g. from manufacturing, inspection, energy, and cluster. Long term benefits include advancing SOI education with validated materials and methods, and a certified Sustainable Innovation Practices module.

4 Values-based innovation maturity and overview of according barriers, practices, methods and exemplary cases

In order to understand the innovation barriers, practices and methods within the context of values-based and cultural challenges and potential improvements of an organization, we introduce a values-based innovation management framework. Findings from the literature review are mapped onto the five maturity levels of this framework.

A Values-Based Innovation Maturity Framework

Oftentimes, the particular values an organization prioritizes for its innovation activities, relate to its sustainability-related innovation strategy. Adams et al. (2016) suggest three different levels of SOI strategy depending on the proactivity and commitment of the firms with sustainable innovation: Operational Optimization, Organizational Transformation and System Building. It can be expected that different values will drive the innovation of the firms under each category, and each value might provoke specific barriers. For example, companies engaged in Operational Optimization might pursue resource efficiency and productivity while organizations following the System Building strategy may focus on values such as circularity, disruptive change, transparency and empowerment. A complementary, and in some respect more fundamental perspective emerges if we attend to the culture enabling or obstructing each of these strategies.

Although an enabling culture is recognized as being essential for adopting SOI in organizations (e.g. Engert et al., 2016; Globocnik et al., 2020; Baumgartner, 2014; Linnenluecke & Griffiths, 2010; Islam et al., 2019), researchers and practitioners often focus on structural and institutional interventions rather than addressing cultural variables such as values (Gedvilaitė & Pădurariu, 2014, 9). Due to meagre understanding about which elements constitute values-based innovation cultures, appropriate means for assessing and facilitating their development are missing. Enhancing this understanding through theoretical insights grounded in empirical data allows for the development of proven frameworks that can be used to foster SOI. For example, maturity models that explain the role of values in developing SOI cultures can allow companies to identify which barriers are most deterring on each level of cultural development and which best practices and methods can help to overcome barrier and increase maturity.

"Maturity models can be considered as a structured collection of elements in which certain aspects of the capability maturity in an organization are described" (Lak & Rezaeenour, 2018, 195). They indicate potential improvements and serve as tools for conceptualizing and measuring the maturity of an organization or a process with respect to a certain target state (Schumacher et al., 2016, 162). For example, Enkel et al. (2011) developed a maturity framework for measuring and benchmarking excellence in open innovation with the five levels of arbitrary, repeatable, defined, managed and optimizing, and according internal and partnering practices. Cagnin et al. (2005, 4f) have suggested a maturity model for business sustainability, which "is founded on the evolution of values rooted in universal principles" and aims to achieve "a common strategy and/or strategies alignment across the sustainability net, founded on values". Barrett (2006, 2017) proposed an organizational values framework, based on a seven-level model that progresses through the fulfilment of various needs in order to reach the adoption of service to humanity and the planet as a key organizational concern. According to Barrett, the degree of alignment between personal values, current organizational values and desired organizational values

provides a basis for adopting sustainability culture and achieving sustainable business impact. Klapper et al. (2020) provide empirical support for Barrett's model but their single case study also suggests further cross-case analysis to allow generalisations. Thus, we are still missing an empirically grounded maturity model for values-based and SOI cultures.

The following framework for values-based innovation maturity builds on these insights from the discussions on organizational maturity for (open) innovation, sustainability, and values, and synthesizes lessons learned from cases of values-based innovation management (Breuer & Lüdeke-Freund 2017a), and numerous consulting projects with private companies and public organizations. It focusses on the management of stakeholder values within the innovation culture of the organization and its innovation activities. Its levels proceed from limited or comprehensive stakeholder integration and an implicit to explicit and systemic or reflexive consideration of values:

1. *Implicit*: Organization values in general and with respect to innovation and entrepreneurial initiatives remain implicit.

The need to review those implicit values raises from external demand, or from internal respectively developmental challenges. External parties may require to conduct for instance an ISO 9001 certification that requires clarifying basic policies and thereby triggers reflection of values, purpose and / or mission. Internal challenges can result from the need to improve alignment between the founders or shareholders or during a generation change in a family business. It can also result from the need to consolidate the core business after a period of rapid growth and diversification, or the need for reorientation following a crisis.

2. *Defined*: Organization values are defined on a global level. They are known, understood and (to some extend) shared by the employees.

Defined values provide a basic framing for business and innovation activities, but run danger of turning into empty stamps once the initial euphoria of their definition is passed. The need to further differentiate them often emerges in the context of strategic decisions weather to invest in a new line of innovation activities, or weather to involve new partners in innovation projects. Reviewing underlying assumptions and values (shared or not among the project managers) in the context of business modelling and especially defining customer value propositions can motivate to move to the next level.

3. *Differentiated*: Values are defined globally involving different stakeholders, but also with respect to individual innovation projects.

New insights from innovation projects, or new stakeholders entering and affecting the process might call for a more dynamic handling of global and project specific values.

4. *Managed*: Values are actively managed (e.g. using measurable indicators and stakeholder feedback) and used as a heuristic (e.g. for ideation) or evaluation criteria for innovation projects. They are actively adapted in response to new insights (e.g. on unintended consequences of innovation outcomes).

The impulse to move from a formal management to an even more pervasive and also informal pursuit of values in daily practices throughout all levels of the organization can result from ambitious goals (such as moving beyond organizational transformation to system building according to Adams et al. 2016) and growing knowledge and sensitivity of collaborators in pursuit of values-based objectives.

5. *Reflexive*: Actively managing values of different stakeholders is an integral part of daily decision making across (innovation-related) functions and a constitutive moment of organizational culture and learning; the "associative networks" (Feather 1996) that values represent, are continuously reflected and refined, translated into action, and thereby ensure a positive impact on values-based (and sustainability-oriented) objectives.

So far, these five levels serve as a preliminary framework to be further elaborated through the expert interviews and ethnographic studies within the IMPACT project. Seeking the most suitable way to differentiate findings from the literature review according to different organizational (cultural) realities, it already allowed to associate the findings from the literature onto a consistent map comprised of the five levels (fig. 3).

Barriers, good practices, methods and cases from the literature

Figure 3 shows values-based innovation barriers, practices, methods and cases from the literature review mapped onto the five levels of the maturity framework. It provides a dense overview of typical innovations barriers organizations maybe facing on each level, and points to suitable practices and methods to overcome the barriers and manage innovation based on values for each level. Each entry is briefly described in the list below.

Overarching barriers

1. Knowledge acquisition (Tura, 2019) is a barrier to sustainable innovation as there exist challenges in the utilization of the sustainability knowledge at all stages of the knowledge management.
2. Lack of resources (Todeschini, 2020) may inhibit the right integration of stakeholders in the development of the sustainable innovation.

Barriers

3. Bocken et al. (2020, 8) refer to a shortened temporal orientation of corporations due to expectations of immediate profits from investments and quarterly financial reporting practices.
4. Low congruence of values (i.e. alignment between organizational values and employees' personal values) has been linked to lower likelihood of an organization to respond to environmental issues (Bansal, 2003) and develop a sustainability-oriented organizational culture (Klapper et al., 2020).
5. Resistance to change (Guldmann & Huulgaard, 2020) hinders a fundamental shift in corporate culture, policies and market engagement required for sustainable innovation.
6. Systemness and radicalness (Boons & Lüdeke-Freund, 2013): SOI is often characterized by systemness and radicalness. Generally, this kind of innovation goes beyond regular product and process innovations, and is future-oriented. Both radicalness and systemness raise important barriers for firms that want to envision sustainable innovations, in the sense that they have to engage with the larger system of which they are a part rather than dealing with the subsystems over which they have full control.

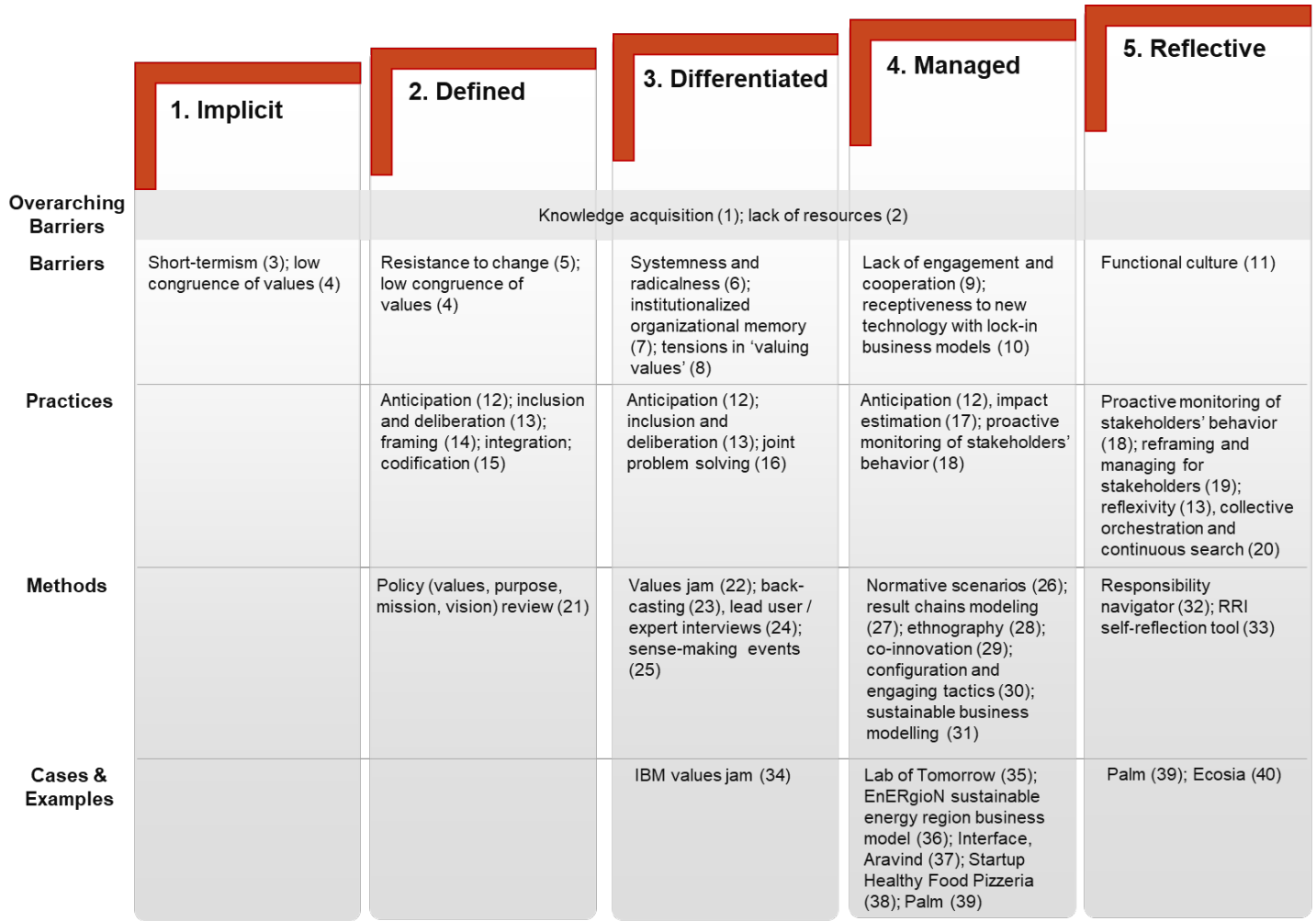

Figure 3 Selected barriers, practices, methods and exemplary cases for building values-based innovation cultures for sustainable business impact from the literature.

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7. Institutionalized organizational memory (Boons et al. 2013): Barriers of the institutionalized organizational memory (consisting of business rules, behavioural norms and success metrics (Johnson, 2010) that evolve and become firmly established once a business model is fully developed) and the external business environment (e.g., characteristics like high capital intensity in concert with incumbents' receptiveness to new technologies and associated business models locking in suppliers and users (Boons & Lüdeke-Freund 2013; with respect to platform business models Wells et al. 2020).
8. Tensions in 'valuing values' (Oskam et al. 2020) appear in three different forms that hinder sustainable innovation to happen in innovation ecosystems: a) the tension of value creation versus value capture, b) the tension of mutual value versus individual value of the different actors of the ecosystems, and the tension of gaining value versus losing value (i.e. whether the actors perceive the division of value captured across the actors as being fair in respect to the individual efforts).
9. Lack of Engagement, cooperation (Brones, 2020; Eikelboom, 2018; Boër, 2013) may result in problems with prioritization issues due to divergent individual and collective interests and concerns or unfavorable organizational structure and culture.
10. Receptiveness to new technology (Boons & Lüdeke-Freund, 2013) and associated business models locking in suppliers and users (Wells 2008; Wells et al. 2020) may lead to rapid substitution of technically functioning devices (just as the latest mobile phone models) cause waste of resources as well as negative social consequences (e.g. labor conditions in mining raw earths).
11. Functional Culture (Daub et al. 2020) may represent a barrier to sustainable innovation as for example, the engineering culture is relatively resistant to sustainability integration and therefore it hinders the necessary cross-functional collaboration and stakeholder integration in the process.

Practices

12. Anticipation (Stilgoe et al 2013) requires systematic thinking about known, likely, plausible and possible implications of potential innovations
13. Lubberink et al. (2017, 4; Stilgoe et al. 2013) reflexivity of one's own assumptions, commitment and activities involves scrutinizing the value systems and beliefs that influence innovation development; Inclusion is concerned with the decisions who to involve, during which stage of an innovation project, whereas deliberation focusses on facilitating discussions in the context of decision making
14. Framing (Bertels et al., 2010) sustainability in ways that reflect the organization's values and in language that aligns with organizational priorities serves to effectively raise awareness about sustainability within the corporate culture.
15. Integrating (Bertels et al., 2010) sustainability values in official mission, vision and values statements and codifying them in corporate policies helps to formalize their adoption in organizational strategies and processes.

16. Björklund & Forslund, (2018) emphasize that a critical activity is to acquire knowledge, but also information sharing and joint problem solving with customers and suppliers, since they have significant impact on innovation development capabilities.
17. Brand et al. (2020) stress the need for continuous estimation, assessment and management of result chains to ensure positive impact of business model innovation in development cooperation;
18. Proactive monitoring of stakeholders' behaviour (Barile et al., 2020) (e.g. through simulation software as in the case of Palm, ibid) supports sustainable co-innovation and renewal of corporate values in accordance with market and actors' needs evolution.
19. Freeman (2010, 8) stresses the need for reframing basic business propositions to satisfy even stakeholders with conflicting values, rather than giving into trade-offs
20. Collective Orchestration and Continuous Search (Oskam et al., 2020) are practices implemented when tensions in the ecosystem appear in order to equilibrate back the value configuration in the ecosystem.

Methods

21. Policy review and (re-)definition framing values, purpose, mission, or vision (Breuer & Lüdeke-Freund, 2017) are performed on a normative management level. Values-based normative innovation allows to develop or renew corporate identity (e.g. to promote a sustainability-oriented innovation culture) and constitutes values-based networks and coalitions across multiple organizations.
22. Yaun (2003) describes a 72-hour collaborative online session with IBM employees to redefine company values.
23. Back-casting (Nattrass & Altomare 1999) involves envisaging a desired future state and working backwards from that to discover and implement the necessary intermediate steps to reach that point (Adams et al., 2016, 190).
24. Lead user / expert interviews (Kratzer, 2020; Schmidt-Keilich & Schrader, 2019) is seen as a valuable approach to support sustainable innovations by assimilating the expertise and concerns of both external as well as internal stakeholders.
25. Sense-making events (Barile et al., 2020) with different stakeholders help to strengthen shared values and co-develop ideas for value propositions' renewal
26. Normative scenarios (Kosow & Gaßner, 2008) describe a desired (e.g. values-based) state of affairs and the path to its attainment. In this way they fulfil goal-setting and strategy-developing functions.
27. Results Chain Matrixes (Kessler et al., 2017, 2) help companies to articulate how their activities lead to outputs (i.e. something produced by the activities), which in turn lead to outcomes (i.e. effects on people or issues due to a solution), and ultimately to (sustainable) development impact (e.g. increased trade, increased income, job creation etc.)".

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28. Ethnography (Breuer & Lüdeke-Freund, 2017, 187f) enables the empirical exploration and differentiation of explicit as well as implicit stakeholder values both within and across organizations.
29. Co-innovation (Lee et al., 2012) utilizes collaboration and co-creation with stakeholders "to generate new organizational and shared values".
30. Configuration and engaging tactics allow to connect with untapped customer values in order to enhance the adoption of sustainable technologies. Configuration tactics allow customers to configure their offerings when buying a product while engaging tactics support users with feedback (e.g. monitoring) services while there are using the technology.
31. Sustainable business modelling (Breuer et al, 2018) negotiates and defines normative values, interests and goals related to various sustainability outcomes (ibid, 271).
32. The EU-funded project ResAGorA developed the "Responsibility Navigator" (Lindner et al., 2016; Lubberink et al., 2017) and an associated "Co-construction Method" workshop which contribute to enhancing reflexive processes for responsible innovation by enabling constructive debate, negotiation and learning among various stakeholders.
33. Responsible Research and Innovation (RRI)-Tools (2021) enable advocacy, training, dissemination and implementation of responsible research and innovation under the Horizon 2020 program. A self-reflection tool (ibid; Lubberink et al., 2017) allows users to self-assess their responsible innovation practices and adopt new best practices by considering all relevant stakeholder groups

Cases & Examples

34. IBM conducted several values jams (Yaun, 2003), first in 2003 with 50000 employees contributing with more than 10,000 comments on the corporate intranet. The resulting redefinition of the company's core values led to identification of gaps between current practices and the new set of values and the emergence of several initiatives to support innovation at IBM.
35. The Lab of Tomorrow (Brand et al., 2020) offers an incubation programme to enable businesses actors from developing countries and the EU to collaborate in pursuing the normative goals formulated as the UN's Sustainable Development Goals (SDGs). To ensure that joint ventures bring about positive socio-ecological impact in the targeted region, the Lab of Tomorrow conducts continuous impact assessment.
36. EnERgioN's sustainable energy region business model (Breuer & Lüdeke-Freund, 2017b) exemplifies values-based business modelling based on the deliberation of desirable futures.
37. Interface (Anderson & White, 2009; Stubbs & Cocklin, 2008; Breuer & Lüdeke-Freund, 2017a) and Aravind (Gerkens et al., 2017; Breuer & Lüdeke-Freund, 2017a) developed their sustainable business models based on their founders'

personal values and by back-casting measures from their ambitious vision for the future.

38. Startup Healthy Food Pizzeria (Franceschelli et al. 2018) plant a tree for each pizza sold. The case presents the way in which a food start-up has realized sustainable business model innovation that takes the importance of social and environmental issues into account.
39. Palm (Barile et al., 2020) is an Italian woodworking company that adopts a values-based approach to innovation management to optimize the sustainable design, production and delivery of wooden pallets.
40. The case of Ecosia (Ivanov & Breuer, 2021; Ivanov, 2019) shows how continuous consideration and reflection of core values within strategic decision-making leads to a specification or reordering of the organizational system of priorities. It provides a demonstrative account of how such continuous specification of the core values (in response to internal negotiations and external partner requests) contributes to developing a sustainable business model and realizing the unique potentials of a management approach based on explicit core values.

5 Discussion and Synthesis

The ongoing review shows that scientific research and literature on values-based and SOI is a growing but not yet well-structured domain, that incorporates relevant contributions from diverse research strands, disciplines and backgrounds. As any emerging and not consolidated knowledge, this literature shows some extent of lexical ambiguity, missing clear and homogenous definitions, terminologies, and deduction of concepts. However, a rather large variety of complementary perspectives is observed (Klewitz & Hansen, 2014). In that sense, it is claimed that within the literature key areas, such as business models, stakeholder management, cultural or industrial and technical factors, can be presumed (cf. Dyck & Silvestre, 2018; Bocken & Geradts, 2020; Slowak & Regenfelder, 2016). To shed lights on this fragmented literature, we have organized the review findings around the concepts of barriers, challenges, practices and methods.

We have thus presented a preliminary framework for values-based innovation maturity that for each barrier and challenge points out a selection of exemplary best practice cases. These are expected to facilitate the development of values-based innovation culture.

In general, literature offers key results in regard to sustainability-oriented and values-based innovation strategies. Increasing attention is paid to the overlapping nature of the topic at hand. In this regard, research lacks in providing uniform terminology when it comes to sustainability-oriented and values-based innovation cultures (Adams et al., 2016; Klewitz & Hansen, 2014). Often, constructs such as sustainability-oriented innovation, sustainable innovation, responsible innovation, or social innovation, to mention a few, are conceptualized and used with similar contexts and meaning. Furthermore, the adoption of different perspectives when it comes to the analysis of values within innovation processes is twofold. First, the normative approach is used in order to analyse how improvements can be measured. Following the research of von Schomberg (2011), the normative analysis is performed by the mechanisms of the market. Second, the procedural approach by Stilgoe

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et al. (2013) combines four dimensions, namely anticipation, reflexivity, inclusion as well as responsiveness, and forms a framework in order to analyse innovation processes. These different approaches, while not mutually exclusive, have significant implications for the research design of the studies and their outcomes. Moreover, it is notable that the unit of analysis is adopted on different levels. In this context, Eikelboom et al. (2018) proposes the importance of the individual role, whereas, Abdi et al. (2018) focuses on the organizational role within the field of organizational cultures and innovation. In addition to this, also an external and internal view on stakeholder engagement can be observed (Bocken & Geradts, 2020; Tura et al. 2019).

This study has implications for theory and practices. First, it contributes to shaping future research (Adams et al., 2016). In particular, it suggests which innovation stages and fields deserve greater attention from scholars. Shedding lights on the different lens through which this domain could be explored, we also claim that future research on this topic should be grounded on multidisciplinary teams and embrace multiple logics, theoretical foundations and perspectives. In respect to practical value, our taxonomy links the SOI barriers and challenges to best practices and suggests inspiring cases and applications. This can support innovators, educators and organizations to implement values-based innovation cultures in a more effective way.

This paper comes also with some limitations, which originate from the fact that the framework is deduced by a literature that is still in its infancy. Most papers are based on conceptual or based on qualitative studies. There is need for more theory-driven empirical research, in particular about quantitative/normative studies that confirm or confute the validity and generalizability of the proposed methods. Thus, the expected findings of the IMPACT project can give specific contributions in respect to this last concern.

The so far developed analysis has also confirmed the need to take into consideration the values and perspectives of different actors, public and private, profit and non-profit, who aim at research or business, participating in SOI processes. Only by means of a harmonization of the different stakeholders' points of view, it'll be possible to overcome the barriers arising first and foremost from a misinterpretation or misuse of the overall SOI processes key concepts, e.g., value/values, responsible/social innovation. Starting from this point, then, a customization of the sustainable innovation mechanisms will be possible, exploiting existing best practices and tools, setting them in the different realities.

6 Outlook

Addressing the great societal challenges, local initiatives and interventions to reduce environmental harm and social upheaval will not suffice. Even the creation of novel products, services and business models to create shared value falls short (Adams et al. 2016) to create the net positive impact that business can contribute to their solution. Instead, this requires building organizational cultures based on values and managing innovation with according practices and methods that combine a sense of direction with foresight and resilient action.

A values-based approach creates resilience in the pursuit of ambitious visions and sustainable development goals. Shared values ensure commitment and persistence to achieve desirable outcomes against the odds of unforeseen barriers and unintended consequences by prompting corrective actions eventually approximate the values-based objectives, while leaving room for interpretation how to do so. For example, in order to

pursue core values like sustainability, integrity and impact, the Green Search Engine Ecosia does not just source green energy and plant trees to overcompensate the CO2 emission caused by its operations, but also triggers continuous impact assessment and management to ensure the social and environmental benefits (e.g. validating the longevity of the trees, and the location and organisation of the plantation). Weighing strategic decisions against the values does not just increase awareness among the team members, but improves a shared understanding of effective means to achieve the desired outcomes.

Even though empirical studies indicate that managing values for innovation leads to superior innovation success (Collins 2001; Van Lee et al., 2005; Bart & Pujari, 2007; Manohar & Pandit, 2014) and superior financial and market performance (Hogan & Coote (2014), this claim still needs further validation, for instance through longitudinal studies. In order to show how maturity of values-based innovation culture contributes to superior performance also in terms of environmental, social and economic value creation, we need to investigate the relationship between values-based innovation culture and the business performance assessed based on objective indicators of financial and sustainability performance of several European firms.

The IMPACT project improves our understanding and knowledge how to create values-based innovation cultures to achieve a net positive impact, to identify the barriers that values-based innovators are facing and to provide them with facilitation methods and educational materials to overcome them – no matter whether they are just starting their journey and defining or differentiating their systems of values, whether they are already quite aware and managing their notions of the desirable, or whether they are already considering their and their stakeholders systems of priorities in each strategic decision, and with each move they take within their ecosystem. Being aware of what each individual and each organization is standing and striving for, being equipped with appropriate knowledge and facilitation methods to drive innovation, each acquires the competences and capabilities to drive required changes to create a desirable future for all.

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