Design teams – a participatory path to socially transformative innovation?

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Abstract

This study investigates how a design team with researchers and participants from different parts and levels of an organisation may function as a participatory method for socially transformative innovation. The experiences gained by a design team in one of Sweden's major forestry companies are examined through a participatory, single case study approach, in which researchers and employees jointly developed new insights and ideas. The results reveal that the design team functioned well in terms of channelling the participants' expertise and experiences into innovative ideas, but less well as regards aligning the latter with the company's regular management procedures, thus reducing the function of the design team to an abstract symbol of organisational 'modernity', rather than an effective instrument for social transformation.

Introduction

The increased societal and industrial complexity caused by phenomena such as globalisation, digitalisation and democratisation makes it more and more unsuitable to

manage innovation processes by only a few individuals with specialised expertise – e.g. engineers – as in the traditional innovation mode among industrial companies (Emilson et al., 2011; Hillgren, 2013; Manzini and Rizzo, 2011). A growing trend is therefore to engage a wider range of employees, users, consumers, citizens and other stakeholders in the development of products, services and other solutions better suited to meeting societal challenges and needs (Chesbrough, et al. 2006; Manzini and Staszowski, 2013; von Hippel, 2006). Various terms have been used to label this inclusive approach, for example: participatory innovation, user-driven innovation, employee-driven innovation, social innovation, open innovation and collaborative design (Ehn, 1988; Buur and Matthews, 2008; Emilson et al., 2011; Hillgren, 2013; Manzini and Rizzo, 2011; Moulaert et al., 2013; Wikberg Nilsson, 2012). Various formats have been employed for such processes, e.g. design teams, living labs, design labs and science shops (ibid).

The participatory trend is perceivable in Scandinavian industrial contexts, where large companies in natural resource-based industries, such as forestry and mining, mobilise a wide range of stakeholders in their struggle to find new ways to secure their labour supply, since their persistently male-dominated workforce is estimated to be too narrow for present and future demands (Brandth and Haugen, 2005; Lidestav and Sjölander, 2007; Lindberg et al., 2016). One of the major forestry companies in Sweden decided to tackle these challenges by organising a design team with employees from different parts and levels of the organisation. The task of the design team was to develop innovative ideas for improved gender equality in the company. The experiences gained from this process are used in this article as a springboard to investigate how design teams may function as a participatory method for socially transformative innovation. This serves to expand the understanding of design teams from constellations of professional experts who mainly design new physical products, to broader constellations of stakeholders who develop new social solutions as well (cf. Bazley et al., 2012; Dykes et al., 2009; Manzini and Staszowski, 2013; Sanders and Stappers, 2008; Valkenburg, 1998; Wikberg Nilsson, 2012). It also serves to align the fields of design teams and socially transformative innovation with an improved understanding of complex mechanisms for social inclusion and exclusion in participatory innovation processes.

Theoretical framework

Socially transformative innovation processes have been increasingly called for in society, and have been examined in research during the last decade, in order better to support and understand new solutions to societal challenges such as unemployment, segregation, immigration, ill-health, and demographic change (Haxeltine et al., 2017; Howaldt et al., 2018; Moulaert et al., 2013; Westley et al., 2017). Several studies scrutinise the transformative mechanisms in such processes, including simultaneous changes on individual, organisational and societal levels, in order to progress from social

exclusion to social inclusion (ibid). Another essential mechanism is the involvement of relevant stakeholders from various groups, organisations and sectors, in order to identify insufficiently addressed needs of social improvement, and to develop effective and legitimate solutions to those needs. Participatory approaches are therefore pivotal in socially transformative innovation processes – actively engaging employees, users, consumers, citizens and other stakeholders in the development of new products, services, methods, strategies, organisational forms and societal structures. (Chesbrough et al., 2006; Emilson et al., 2011; Manzini and Staszowski, 2013; von Hippel, 2006).

Studies reveal that this participatory trend is partially rooted in the Nordic tradition of workplace democracy and employee involvement during the 1970s (Aagaard Nielsen and Svensson, 2006; Ehn, 1988; Gunnarsson et al., 2015; Hillgren, 2013; Sanders and Stappers, 2008; Sejer Iversen, 2012). Various terms have since been adopted to pinpoint such approaches, e.g. participatory innovation, user-driven innovation, employee-driven innovation, social innovation, open innovation and collaborative design (Ehn, 1988; Buur and Matthews, 2008; Emilson et al., 2011; Hillgren, 2013; Manzini and Rizzo, 2011; Moulaert et al., 2013; Wikberg Nilsson, 2012). A widened perspective has also been noted *within* some of these concepts, exemplified by Hillgren's (2013, 76) statement that participatory design has moved 'from a strong focus on "work place" controversies related to information technology to become increasingly engaged in public spheres and everyday life, where design activities are rather heterogeneous, partly open, engaging users and other stakeholders across organisational and community borders'.

Teams with combined expertise and experience are gaining ground as a participatory format, especially in industrial and work-related settings (Manzini and Rizzo, 2011; Sanders and Stappers, 2008; Wikberg Nilsson, 2012). Such diverse teamwork constellations are expected to engender more socially, organisationally and/or technologically innovative solutions, matching the increased industrial and societal complexity caused by such phenomena as globalisation, digitalisation and democratisation (Emilson et al., 2011; Hillgren, 2013; Manzini and Rizzo, 2011). This is in contrast to the classical approach of industrial, technological innovation, which engages only a few individuals with similar expertise – often in engineering. In this article, teamwork settings, labelled design teams, are particularly in focus. Previous studies of design teams have mainly referred to teams of professional designers, architects and/or engineers who jointly design new products, buildings and technologies (Bazley et al., 2012; Dykes et al., 2009; Manzini and Staszowski, 2013; Valkenburg, 1998).

Some studies have, however, highlighted these changes as joint innovation processes with a more diverse range of participants and aims (Binder and Hellström, 2005; Sanders and Stappers, 2008; Wikberg Nilsson, 2012). Studies reveal a sliding scale between traditional design teams, involving only professional designers, and more

diverse design teams, engaging a wider range of both professionals and laymen (Bazley et al., 2012; Dykes et al., 2009; Manzini and Rizzo, 2011; Sanders and Stappers, 2008; Wikberg Nilsson, 2012). Regardless of their specific composition, the main function of more diverse design teams has been described as being 'to create hands-on design activities that encourage participation and open engagement in a workshop-like setting' in co-creation processes (Hughes and Scupelli, 2013, 129).

The perceived values of more diverse design teams include the idea that 'those affected by a design should have a say in the design process' (Hillgren, 2013, 76), that 'diversity of thoughts at the beginning of a product development project often leads to innovations' (Kleinsmann and Valkenburg, 2008, 372), and that the 'future challenges and modes of knowledge creation, exchange and work' require increased team and network skills among designers (Baerten, 2013, 47). Such diversity might, however, hamper the design team process, if the differences among the participants produce 'unnecessary iterative loops, reducing the quality of the final product since not all problems are effectively addressed' (Kleinsmann and Valkenburg, 2008, 371). Previous research therefore underlines the importance of creating a shared understanding among the team members (Valkenburg and Dorst, 1998).

Design team processes have been conceptualised as 'agonistic spaces', allowing a 'polyphony of conflicting voices which, despite their opposition, respect each other and are united by passionate engagement' (Hillgren, 2013, 76). This has proved effective for developing a wide range of new services, products and project ideas, but less effective in managing and packaging the results 'so that they would have enough impact to challenge the dominant hegemony' (ibid, 81). The key to sustainability is perceived to be a combination of facilitating and triggering creative communities, at the same time as connecting them to 'other more established top-down actors' (ibid, 85). Inspired by Schön's theory on reflective practice, Valkenburg and Dorst (1998) distinguish four essential actions in design team processes: naming, framing, moving and reflecting. Naming implies the identification of relevant factors in the situation, framing implies the articulation of a problem in a certain way, moving implies practical efforts to develop solutions, and reflecting implies the continuous evaluation of the actions.

By studying two design teams composed of design students, Valkenburg and Dorst (1998) identify the action of framing as of particular importance for design teams, since it creates a joint understanding of the design task and its possible solutions. In order to attain a practical result, in their study, the time spent on framing appears as less relevant than the focus of the framing, implying that the most profitable procedure is to combine a focus on the design solution with a focus on the design task (i.e. the problem). The framing action appears in the study as a prerequisite for moving, since it provides a shared goal of the activity that helps focus the teams' efforts to form a solution. In the study, moving comprised 'choosing ideas, generating ideas, considering arguments, integrating parts, evaluating ideas, building models, detailing

parts, consulting on interfaces, drawing the design, and evaluating the design' (ibid, 267). In the action of naming, one of the design teams studied tended to get stuck in discussions about what relevant factors to acknowledge, 'dividing their attention over all aspects of the design task and interrupting each other whenever they got deeper into one subject' (ibid, 266), thus holding up more concrete moves such as choosing and drawing. Reflection emerges in the study as 'a conscious and rational action' (ibid, 254), serving to reframe the problem, to enhance new moves or to attend to new issues.

Research design

This study is designed as a single case study, with a participatory research approach, which is deemed fruitful when exploring new complex topics with multiple dimensions, as is the case of socially transformative innovation (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015; Yin, 2009). The case is constituted by a design team process in one of the major forestry companies in Sweden, considered suitable as it intended to mobilise a variety of employees and competences to improve gender equality. The process was jointly planned and managed by the company, researchers and consultants, as part of an R&D project carried out from 2013 to 2015. The project aimed at developing new knowledge and tools for improved gender equality in male-dominated forestry companies, through a participatory process involving academia, industry and society. The project was coordinated by a university and financed by Sweden's innovation agency VINNOVA. In the design team, researchers from the university acted as experts and dialogue partners, based on their expertise in gender, organisation and innovation. A consultant with similar expertise acted as process leader, guiding the participants through various themes and tasks, at six workshops. Eleven employees from various divisions and levels of the company participated in the design team process. New insights and ideas were thereby jointly formed by the employees, the researchers and the consultant, in line with a participatory research approach (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015). In the same vein, this article has been jointly authored by the researchers and the consultant.

The data collection for this study encompassed participatory observations, qualitative interviews, an on-site evaluation and an anonymous survey. Participatory observations were performed by two of the researchers at six design team workshops, lasting five hours each. The workshops were documented in field notes and photos of whiteboard notes and post-it notes. The participatory part of the observations included short lectures and continuous reflections on discussed topics. The observational part encompassed written documentation of the participants' expressed thoughts and ideas in field notes, collected post-it notes and photos of whiteboard notes. The on-site evaluation took place at the last workshop, at which one of the involved researchers asked all of the participants to comment on their perceived benefits of participating in the design team, the potential practical use of their insights from the process, their personal contribution to the design team process, as well as additional comments. All

this was documented in field notes. The anonymous survey was distributed digitally shortly after the final workshop. Participants were asked about their motives for participating, their experience of the process, their opinion of the results and the potential use of the design team concept in their company. Seven of the eleven participants answered the questionnaire, constituting a response rate of 64%. The qualitative interviews were carried out with five participants – representing the spread of gender, experience and competences in the team – a few months after the last workshop. Each interview lasted for one hour, and was recorded and transcribed.

The collected data was sorted chronologically in line with the different phases of the design team process, comprising of the generation of the initial idea, followed by prioritisation, refinement and dissemination. The main benefit of this classification was to pinpoint the cumulative character of the process, including how ideas were jointly formulated and reformulated step by step by the participants, in order to attain the aim - the innovative promotion of gender equality in the company. The data was further sorted into three main themes – organisation, process and results – which were then used as a basis for a theoretically and practically informed analysis of the role of the design team to function as a participatory method for socially transformative innovation.

The design team process

Similar to other large companies in natural resource-based industries in Sweden, the forestry company studied here is experiencing increased recruitment difficulties, due to limited interest among youths, women and urban men in choosing education and employment in these industries, which are generally perceived as old-fashioned, physically demanding and geographically remote (Brandth and Haugen, 2005; Lidestav and Sjölander, 1997; Lindberg et al., 2016). To attract these groups, they particularly try to diversify the persistently male-dominated workforce and macho-masculine identities and ideals in their workplace cultures. As part of this, they aspire to appear more 'modern', by better reflecting the social, organisational and technological transformations that have taken place during the past few decades in male-dominated industries, and which have fundamentally changed working conditions and skill requirements (cf. Abrahamsson et al., 2014; Kuhn et al., 2002; Lidestav and Sjölander, 1997; Lindberg et al., 2016).

Starting up the design team studied here was intended to further advance the company's decade-long efforts to promote gender equality. The team was deliberately composed of persons with various occupations, competences, locations, ages and genders in order to attain a team with a high creative potential. It included, for example, the top R&D manager, the top HR manager, the sustainability coordinator, middle managers, communication specialists and a machine operator. The composition of the team was decided on by the company's HR department, based on their previous experiences of organising temporary work teams for specific tasks. Participation

in the design team was voluntary, and an invitation to participate was sent out to the selected employees by the HR department. According to the interviews and the survey, the primary motives for participating were: curiosity to be involved in testing an 'exciting new method' for improved gender equality; a desire for a more varied work situation with interesting discussions; an opportunity to learn more about challenges and solutions for gender equality; to contribute with practical experience; and to contribute to a 'serious and anchored' gender equality process in the company.

The design team process took place at six workshops arranged regularly throughout the two-year long project period. At these workshops, various creative methods were applied to identify challenges and develop potential solutions, inspired by methods from participatory design, gender equality and educational theory. At the first workshop, the results from a pre-study of gender-related structures in the company were presented by the researchers. This formed the basis for a creative process, in which the participants, the researchers and the consultant jointly pinpointed gender-related challenges in the company, as well as obstacles to and opportunities for improvements, by means of individual brainstorming on post-it notes. Through joint categorisation of the post-it notes on the whiteboard, eight main themes were distinguished: recruitment, management, ignorance, fixity, women, macho, innovativeness and sustainability.

At the second workshop, three of the themes – management, macho and innovativeness – were singled out as the most promising in terms of improving gender equality in the company. The participants were split into smaller groups – in which the researchers and consultant also took part – that step-wise formulated a visionary state for each theme, a worst-case scenario if the visions were not realised and the best-case scenario if they were, as well as crucial steps to realise the visions. In the management theme, the elements pinpointed were: the allocation of sufficient resources; the formulation of effective arguments; and the communication of practical examples. In the macho theme, the elements pinpointed were: measures based on employee survey results; the replacement of conservative managers; and the recruitment of women as sales managers and business development managers. In the innovativeness theme, the elements picked out were: the advocacy of top and middle managers; the allocation of sufficient recourses; and broader skills requirements in recruitment processes.

The third workshop opened with a short lecture by the researchers on previous findings regarding macho masculinity in industrial organisations, as a springboard for a creative process about how to engage the male majority of the company in gender equality issues. Through a joint dialogue, the participants, the researchers and the consultant pinpointed the informal requirements for being accepted by peers and managers as a 'proper' employee of the company as crucial to change, including expectations on how to dress, what to chat about in the coffee room, what personal hobbies to pursue, etc. Potential for improved gender equality was perceived in changes of perceptions and approaches among the male majority of the workforce, the competence development of all employees in gender equality issues, the integration of gender equality

issues in regular management and career programmes, and recruitment processes that value differences instead of similarities in regard to the existing workforce.

The fourth workshop opened with an overview of the company's previous gender equality interventions – presented by the researchers – as a basis for the further development of these efforts and for identifying hitherto unaddressed issues. The participants, the researchers and the consultant jointly assessed the level of success in each intervention, as well as ways to improve the less successful ones. Two insufficiently addressed challenges were then singled out: the company's overarching goal of attaining a workforce mix of 30% women and 70% men by 2020, as well as organisational congruency across divisions and levels in the company's gender equality efforts. Each challenge was further processed in smaller groups, outlining relevant stakeholders, initial measures, required resources and potential obstacles, as well as enhancing arguments.

At the fifth workshop, a list with 40 ideas accumulated during the preceding workshops was presented by the researchers, as a basis for prioritisation and translation into practical proposals for future gender equality efforts in the company. Based on academic input from the researchers about general and social innovativeness, the design team first estimated the innovativeness of each idea and sorted them into three categories: new to the company, new to the gender equality area, and not new to either of these. The ideas thus categorised were then jointly evaluated in terms of their social innovativeness, i.e., their perceived potential to transform gender-related structures in the company. Three ideas were then singled out as the most innovative: 1) An organisational culture and structure of courage and ability to try out innovative interventions for gender equality; 2) An approach to long-term investments in gender equality with sufficient resources, legitimacy and expertise; 3) Internal and external promotion of the company's proven ability to offer enjoyable and rewarding work tasks, workplaces and career paths for both women and men. The ideas were further specified at the sixth workshop and then interlinked in a comprehensive concept for a gender equal forestry company. Due to commercial confidentiality, this concept cannot be disclosed here.

After the final workshop, the design team was dissolved – as it was a temporary constellation during the joint R&D project only – and the comprehensive concept and the list of ideas were delivered to the top management and other crucial stakeholders in the company by design team participants from the HR and R&D departments. The reception was, however, vague and did not result in any immediate decisions or initiatives. Some of the recipients stated that the concept and ideas were 'too unspecific'. Several of the design team participants also articulated concerns over 'a lack of concrete results' from the process. Some had previously expressed their frustration over the unpredictable path from imaginative brainstorming sessions to concrete measures, sometimes stalling the creative process by raising issues of practical limitations early on in the process. Others appreciated the chance to think freely about challenges and solutions, without having to consider restrictions in budget, time, mandate, etc., in contrast to their regular work tasks.

The survey and interviews reveal that, in general, the participants found the design team process a rewarding experience both for themselves and the company. They claim to have obtained increased insight into gender-related challenges in various parts of the company and a broadened perspective on what gender equality might imply in relation to forestry in general and the company in particular. They further appreciated the deep involvement and creative working climate in the design team, across professional and divisional boundaries, as well the opportunity to actively contribute to organisational development. Several of the participants stated that they intended to use the acquired knowledge and conceptualised ideas in their everyday work, and some had already implemented smaller changes during the ongoing process. Several would also recommend the company to use the design team format again with other constellations, for the same or other purposes.

Participatory transformation or symbolic conservation?

The trend of engaging stakeholders in innovation processes in order to meet complex societal and organisational challenges is reflected in the way the design team studied here involved researchers, a consultant and a variety of employees from a major forestry company, in order to develop innovative solutions to improve gender equality (cf. Chesbrough et al., 2006; Emilson et al., 2011; Manzini and Staszowski, 2013; von Hippel, 2006). The applied participatory approach, enhancing the joint generation of insights and ideas by researchers and stakeholders, helps expand the traditional understanding of design teams as constellations of professional experts that mainly design new physical products, to encompass broader constellations of stakeholders who also develop new social solutions (cf. Aagaard Nielsen and Svensson, 2006; Bazley et al., 2012; Dykes et al., 2009; Gunnarsson et al., 2015; Manzini and Staszowski, 2013; Sanders and Stappers, 2008; Valkenburg, 1998; Wikberg Nilsson, 2012).

The function of the design team studied here - as a participatory method for socially transformative innovation - might be understood in the light of the previously delineated actions in the design team processes (Valkenburg and Dorst, 1998):

- Naming – i.e. the design team's identification of relevant factors in the process to acknowledge and address, through collective and individual brainstorming informed by academic input.
- Framing – i.e. the joint articulation of gender-related challenges in the company, based on personal experiences, organisational records and academic knowledge.
- Moving – i.e. the design team's practical efforts to generate ideas and solutions, through an iterative process of brainstorming, selection, refinement and packaging.
- Reflecting – i.e. the continuous scrutiny of the design team's insights and ideas, based on their perceived potential to innovatively transform gender-related structures in the company.

The four actions help elucidate the transition from social exclusion to social inclusion highlighted in previous studies on socially transformative innovation, by pinpointing key mechanisms in the design team's progress from identifying and analysing factors and challenges to elaborating solutions with a potential to change complex dynamics (cf. Haxeltine et al., 2017; Howaldt et al., 2018; Moulaert et al., 2013; Westley et al., 2017). In accordance with the participatory research approach, the naming and framing were based on a mix of personal experiences, organisational records and academic knowledge (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015). As preceding studies had provided the most extensive insights into the organisational and industrial challenges and mechanisms of gender equality, the participants were limited to discussing and reacting to these. And as framing is of particular importance for creating a joint understanding of the issue addressed by design teams, this might have hampered the potential to achieve socially transformative innovation (cf. Valkenburg and Dorst, 1998).

This hampering effect was, however, partly counteracted by the action of reflecting, opening up opportunities to reframe the issue and acknowledge additional factors and mechanisms (cf. Valkenburg and Dorst, 1998). The creative methods applied in the process allowed for extensive and continuous brainstorming, based on the participants' personal experiences and competences. This was appreciated by some participants as an opportunity to think freely, beyond practical restrictions and regular work tasks, while others were frustrated by the unpredictable path from imaginative brainstorming to concrete measures. The academic input on criteria for innovativeness, provided by the researchers, might have further reinforced the opportunities of participants to reframe the factors and challenges originally identified, which is what the applied participatory research approach aspires to do (cf. Aagaard Nielsen and Svensson, 2006; Gunnarsson et al., 2015).

By providing a joint understanding of factors and challenges, the actions of naming, framing and reflection formed the prerequisites for the moving, i.e. the design team's efforts to generate possible solutions (cf. Valkenburg and Dorst, 1998). This seems to have been sufficient for the generation of 40 individual ideas – subsumed in a comprehensive concept – for improved gender equality in the company. These were nevertheless perceived as too inconcrete and unspecific by some design team participants, as well as by the recipients in the top management and other company units. The potential of the design team results to bring about socially transformative innovation would thus seem to have been regarded as limited. In the light of previous studies, this might be understood as the limited ability of the design team to package and manage the ideas it generated (cf. Hillgren, 2013). It might also be interpreted as a mismatch to the company's regular managerial procedures and development strategies, due to the format of the design team as a separate, temporary structure in the organisation (cf. ibid). This is similar to conclusions in previous studies of the project format commonly applied in socially transformative innovation processes, despite its restrictions as regards time, scope and mandate (cf. Fred, 2018; Lindholm, 2012).

As suggested by Hillgren (2013), the mismatch might have been counteracted through a more extensive alignment of the design team to the top managerial structures in the company, similar to the multi-level progress identified as pivotal in socially transformative innovation (cf. Haxeltine et al., 2017; Howaldt et al., 2018; Moulaert et al., 2013; Westley et al., 2017). The design team constellation did, however, involve representatives with top management positions in HR and R&D, as well as several middle managers, in order to enhance such alignments. An alternative, or additional, explanation might be the resistance of established organisational structures to far-reaching transformations, which is rather common in gender-related and other norm-challenging innovative processes (cf. Lindberg et al., 2016; Lindholm 2012). The design team might thus have been assessed mainly on its function as an abstract symbol for organisational 'modernity' – acknowledging current social, organisational and technological transformations in society – rather than as a practical method for socially transformative innovation (cf. Abrahamsson et al., 2014; Kuhn et al., 2002; Lidestav and Sjölander, 1997; Lindberg et al., 2016).

Even so, the design team might actually have functioned as an 'agonistic space' in the company, where its combined expertise and experiences formed a deeply involved, creative community with a diversity of ideas and hands-on design activities (cf. Hillgren, 2013; Hughes and Scupelli, 2013; Kleinsmann and Valkenburg, 2008). The mainly rewarding experiences of the participants in terms of the design team format and process, which offered improved insights into gender-related challenges and potentials, and promoted intentions to apply the insights and ideas thus generated to their everyday work, can be seen as signs of socially transformative innovation bottom-up. This resonates with the fundamental aspirations of participatory approaches, which actively engage employees, users, consumers, citizens and other stakeholders in the identification of insufficiently-addressed needs related to social improvement, and in the development of effective and legitimate solutions to those needs (cf. Chesbrough et al., 2006; Emilson et al., 2011; Haxeltine et al., 2017; Howaldt et al., 2018; Manzini and Staszowski, 2013; Moulaert et al., 2013; von Hippel, 2006; Westley et al., 2017).

Conclusions

Harnessing the experiences from one of Sweden's major forestry companies, this study has investigated how design teams may function as a participatory method for socially transformative innovation. The results reveal that the design team functioned as an 'agonistic space' in the company, where the combined expertise and experiences of the participants resulted in improved insights into the issue addressed, an extensive number of innovative ideas and a willingness to apply these in their everyday work. The design team's ability to inspire socially transformative innovation was, however, restricted by the fact that their ideas were perceived as too inconcrete and unspecific by participants, top management and other company stakeholders. This tended to turn

the design team into an abstract symbol of organisational 'modernity', rather than an effective instrument for social transformation. This underlines the importance of a strategic alignment between regular management procedures and separate temporary teams and projects, combined with an individual and organisational dedication to challenge and change established structures.

The results thereby contribute to an expanded understanding of design teams as broader constellations of stakeholders developing new social solutions than traditionally highlighted in design team studies. They also serve to align the fields of design teams and socially transformative innovation within an improved understanding of the complex dynamics involved in social change through innovation. Further studies are required in order to validate and refine the findings in relation to various organisational, industrial and sectorial contexts, which would allow for a more encompassing theoretical and contextual generalisation regarding the function of diverse design teams to achieve socially transformative innovation. The practical implications of the results include useful insights into enhancing and hampering mechanisms, when organising and managing design teams to improve social inclusion in general and gender equality in particular.

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