

Research Article

Bridging Social Innovation in Education and Organisational Learning

Conectando la Innovación Social en la Educación con el Aprendizaje Organizativo

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Abstract: This article combines two research approaches so far not connected but mutually reinforcing each other: social innovation and organisational education. On the one hand, theoretical and practical development of social innovation in education is a growing research area. On the other hand, organisational education, through its outlined Research Memorandum Organizational Education, is strengthening research of organisations and learning processes, especially on learning in, by and between organisations. To unfold the potential of social innovation in education, new cooperation and governance structures are needed to integrate all the relevant stakeholders to solve educational demands and mismatches. This is a prerequisite for making the formal education system more receptive to social innovations. The organisational education approach is focusing on a yet neglected part of the social innovation process: the change of organisations by mutual learning processes within an innovation ecosystem bringing together stakeholders from education and research, economy, policy, and civil society. The article shows the connections between both approaches by drawing on examples in practice from different applied research projects.

Keywords: social innovation; social innovation in education; organisational education; networks; new skills alliances; education and training.

Resumen: Este artículo combina dos enfoques de investigación hasta ahora no conectados, pero que se complementan mutuamente: la innovación social y la educación organizacional. Por un lado, el desarrollo teórico y práctico de la innovación social en la educación es un área de investigación en crecimiento. Por otro lado, la educación organizacional, a través de su Memorandum de Investigación sobre Educación Organizativa, está robusteciendo la investigación sobre las organizaciones y los procesos de aprendizaje, especialmente sobre el aprendizaje en, de y entre las organizaciones. Para desplegar el potencial de la innovación social en la educación, se necesitan nuevas estructuras de cooperación y gobernanza que integren a todas las partes interesadas para resolver las demandas y desajustes educativos. Este es un requisito previo para que el sistema educativo formal sea más receptivo a las innovaciones sociales. El enfoque de la educación organizacional se centra en una parte aún descuidada del proceso de innovación social: el cambio en las organizaciones mediante procesos de aprendizaje dentro de un ecosistema de innovación que reúne a las partes interesadas del ámbito de la educación, la investigación, la economía, la política y la sociedad civil. El artículo muestra las conexiones entre ambos enfoques a partir de ejemplos prácticos basados en diferentes proyectos de investigación aplicada.

Palabras clave: innovación social; innovación social en la educación; educación organizacional; redes; nuevas alianzas de competencias; educación y formación.

1. Bridging Organisational Education and Social Innovation in Education

The study of social innovation aims to understand how new social practices are configured (Howaldt & Schwarz, 2010) and how change of social practices manifests itself in different dynamics, institutions and contexts. Recent research has examined how social innovations contribute to social change (Howaldt et al., 2015; Maldonado-Mariscal, 2020). Key dimensions identified for social innovations address (1) societal challenges and social demands, (2) concepts and understanding, (3) resources, capabilities and constraints, (4) governance, networks, actors, and (5) process dynamics.

Schröder and Kuschmierz (2017, p. 2) allocated these five dimensions to the policy field of education and used them as parameters for the description of social innovation initiatives and social innovation processes: (1) by referring to societal challenges and social demands on the regional local level (e.g. reducing educational disadvantages), (2) describing concepts and understanding by types of social innovations in education, (3) taking advantage of given capabilities and overcoming constraints, (4) establishing new networking and governance structures (e.g. for lifelong learning); and (5) collaborating innovation processes of mutual learning.

Organizational education investigates learning processes in three different dimensions: the internal processes of an organisation, the institutions created by the organisations, and finally, the networks created between the different organisations. Therefore, we can say that organisation education is mostly interested in learning processes in, by and between organisations (Schröder et al., 2020, p. 3).

Observing recent advances in research on social innovation and organisational education, the main link between both lies in changing institutions and networks and developing new social practices: "A key aspect is research into networks and alliances, together with the emergence of new societal, cultural, economic and political practices." (Göhlich et al., 2018, p. 208).

Against this backdrop, the main connection between both approaches relies on the implications for organisations and the related education and learning perspective. Special interest of organisational education is given to organisational learning and creativity of institutions (Weber & Peters, 2019). Therefore, as a central dimension of organisational education, we will concentrate in the following on learning in, by and between organisations, and on new organisational structures for social innovation in the field of education.

1.1. Organisational Education: Learning In, By and Between Organisations

The Research Memorandum Organizational Education (Göhlich et al., 2018) is focusing on six research topics which are to a great extent compatible with the key dimensions of Social Innovation. In the following Table 1, we present the key dimensions of both fields.

Looking at the Research Memorandum Organisational Education (Göhlich et al., 2018) the research objectives are covering most of the social innovation dimensions, especially understanding learning and organisational change. Organisational education is mostly interested in learning processes within organisations, by the organisations, and between the different organisations. One of the most interesting aspects of research in organisational education for sociology is the formation of networks or collectives (Gamoran et al., 2000). Both the individual and collective characteristics of organisations allow for a better understanding of educational contexts. Similarly, a key research question of organisational pedagogy is about the development of hybrid organisations or hybrid stakeholder constellations (Schröder et al., 2020, p.3; Weber & Peters 2019).

Additionally, the "participative, processual, aestheticizing and creation-oriented research approaches" (Göhlich et al., 2018, pp. 207-211) of Organisational Education are very much in line with bottom-up and co-creation concepts of most of the grassroots social innovation initiatives.

Table 1. Key dimensions of Organisational Education and Social Innovation.

Organisational Education	Social Innovation
1. Organisational learning structures and processes	Processes
2. The protagonists of organisational learning	Actors
3. General framework conditions of organisational learning	Capabilities and constraints
4. Institutionalized support for organisational learning	Governance and networks
5. Organisational learning in specific fields of practice	Practice fields, societal challenges, social demands
6. Institutionalization, professionalization and internationalization of organisational education	Social practices, mechanisms of diffusion

Source: Own elaboration based on Göhlich et al. (2018) and Schröder & Krüger (2019).

1.2. Social Innovation in Education

Despite a growing body of research on social innovation worldwide (Ayob et al., 2016; Howaldt et al., 2014), there is not yet a consensus on a definition for social innovation in general (Howaldt et al., 2016; Howaldt et al., 2018; Edwards-Schachter & Wallace 2017; Rude & Lurtz 2012; Pol & Ville, 2009; van der Have & Rubalcaba, 2016) and such consensus is missing as well in the field of education. Concerning social innovation in education it has to be stressed that even the term “social innovation” is not reflected in the policy field education; although a lot of social innovation initiatives are existing, they are not labeled as social innovations (Schröder, Krüger & Kuschmierz, 2017). However, analysis of innovative initiatives in education underlined the definition and key elements of the social innovation concept for educational innovations.

In the context in which social innovation in education happens, new actors emerge as innovators and give place to new collaborations between communities, schools, government, and non-governmental organisations (Maldonado-Mariscal et al., 2018). Also, new networks between companies, educational institutions, and different stakeholders emerge at the local, national and international level; building in this way challenge-related ecosystems of innovation where relevant stakeholder groups are involved and have different roles and responsibilities (Schröder & Krüger, 2019).

Key elements of social innovation are new social practices (Howaldt & Schwarz, 2010; Butzin et al., 2014a, 2014b), which are identified within “the creation of new institutions, new ways of organisation, new social relations and re-location of power; combination of factors, processes or institutions in order to give place to new forms for better solutions, and to foster social change” (Maldonado-Mariscal, 2017, p. 39).

We will show this by (1) the impact of grassroots initiatives on existing structures and organisations of the education system, and (2) social innovation at workplace: the need for combining Industry 4.0 with qualification and learning (Work/Qualification 4.0) by New Skills Alliances (comprising technological, organisational and social impact).

2. Concepts and Examples of Social Innovation in Education

Social innovations in education refer to recent educational challenges and demands leading to different innovation processes and practices, governance, networks and actor constellations. New types of partnerships, introducing new roles for actors and building ecosystems, require appropriate coordination and governance strategies combining different levels and, over time, indicate new institutionalized practices. This will be illustrated by the results of the SI-DRIVE project (www.si-drive.eu/) and selected examples of the policy field education: Exchanging Education for Habitation and HESSENCAMPUS (new regional structures for lifelong learning).

Referring to the mainly technology-led discussion of Industry 4.0 there are also social innovations in and for skills adjustments, illustrating different learning processes within, by and between companies (economic and educational organisations), creating new processes for adjusting skills to new demands at the workplace proactively. Taking this up and focusing on cooperation and learning between organizations, networks are created and new organisational governance structures for (vocational) education and training emerge; illustrated by new sectoral Skills Alliances: The European Steel Skills Alliance (ESSA www.estep.eu/essa) and the Skills Alliance for Industrial Symbiosis (SPIRE-SAIS www.spire2030.eu/sais).

2.1. Exploring the ground for Social Innovations in Education

The most extensive examples of social innovation in education can be seen in the framework of the large-scale global project Social Innovation - Driving Force of Social Change (SI-DRIVE)¹, which was funded by the European Union (EU) from 2014 till 2017. The project represents relevant research on social innovation due to its global nature but also because of its theoretical and empirical research. Within the overall mapping of 1,005 cases of social innovation initiatives in different policy fields (leading to the Atlas of Social Innovation (www.socialinnovationatlas.net; Howaldt et al. 2018 and 2019) first insights in Social Innovation in Education were examined, collecting and analysing 211 social innovation initiatives and cases in this field. With these cases, social innovation in education became visible because of their advanced phase of implementation, responding to (local) social demands with the following main topics (practice fields): (a) reduction of educational disadvantages, (b) new learning arrangements, (c) digital inclusion, (d) improvement of the quality of education system, and (e) strategic partnership between education and economy (Schröder & Kuschmierz, 2017, p. 5).

Between the different key dimensions (listed in chapter 1) one of the main elements of social innovation within SI-DRIVE concerns governance. In order to understand relevant ways of social innovation governance, we need to better understand networks, different cooperation forms and communication channels (Schröder & Kuschmierz, 2017, p. 114).

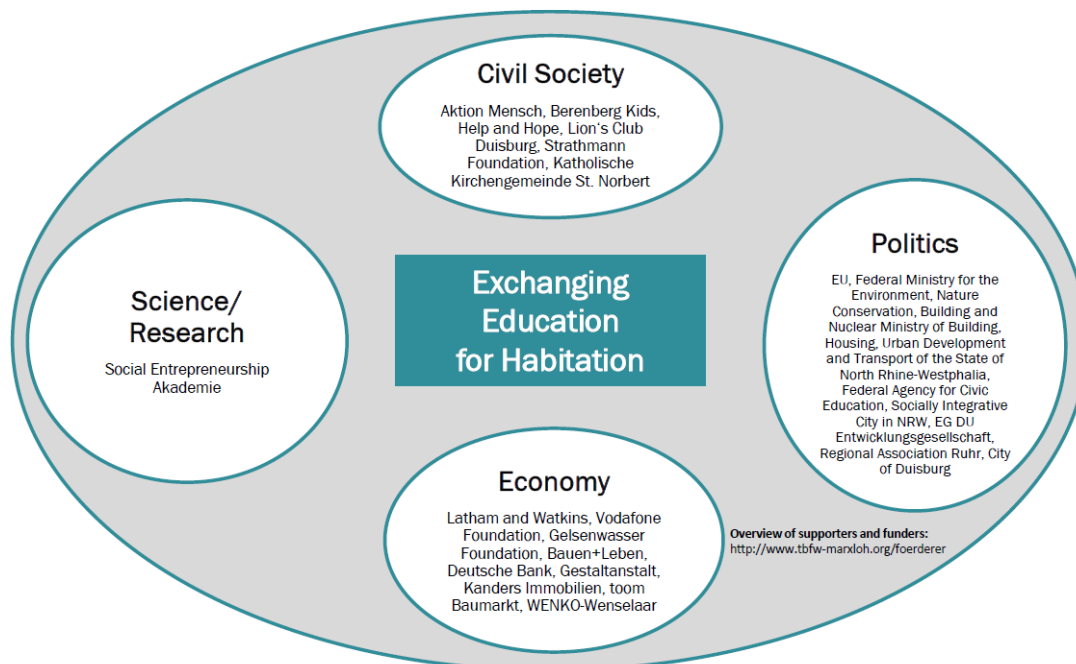
An example of social innovation giving us insights on these aspects is an initiative that worked towards a reduction of educational disadvantages by developing a strategic partnership between civil society, educational institutions and social enterprises in Germany: Exchanging Education for Habitation (Tausche Bildung für Wohnen –TBfW)² (Schröder & Kuschmierz, 2017, pp. 17-18). This initiative started in 2011 improving social and educational integration of children with a precarious living background. Exchanging Education for Habitation is a registered association providing free housing for young education mentors (students) in a disadvantaged district (Duisburg-Marxloh). The initiative is based on exchange principles (barter economy), where children from economic and social disadvantaged neighborhoods are taught and coached by students who get a flat in the district without paying rent in exchange. By exchanging rent-free living space for education activities, a win-win-win situation for children, teaching students and the disadvantaged neighborhood is given (by also modernizing run-down houses), all in all leading to an improvement of the living situation in the district in the long-term.

The partnership of this initiative includes mainly local actors: schools, youth centers, social centers, churches, cultural and pedagogical centers, and charity organisations. A non-profit foundation supported this initiative through a start-up consultancy service, because the initiative won a competition of social enterprises working on education. Additionally, university-based entrepreneurship centers supported this initiative through consultancy in the design phase of this project (ibid).

¹ SI-DRIVE (Social Innovation: Driving Force of Social Change). This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 612870. <https://www.si-drive.eu/>

² Tausche Bildung für Wohnen –TBfW. <https://tauschebildung.org/>

Figure 1. Social Innovation Ecosystem, an example of Exchanging Education for Habitation.



Source: Tausche Bildung für Wohnen e.V./Exchanging Education for Habitation, taken from Schröder & Krüger (2019).

Another example on social innovation education is the initiative HESSENCAMPUS (<https://www.hessencampus.de>). Based on the hypothesis that successful Lifelong Learning has to go beyond existing institutional education and training structures up to new overarching and comprehensive lifelong learning structures and systems, a paradigm shift from an institutional or organisational perspective to an unrestricted learner or learning process perspective was transferred into practice. This includes that adult learning is different from children's learning: Adult learning needs to go from pedagogy to an "andragogy"-based approach (see Knowles' andragogical theory in Knowles 1973) with adult specific education and training didactics and methods.

The initiative started from the assumption that the implementation of Lifelong Learning needs not only a system-related approach but a "social innovation" process, in which relevant stakeholders, institutions and policy makers as well as the inhabitants of the region and its related localities are involved.

HESSENCAMPUS therefore shifted from an institutional to a strict learner's and learning process perspective, establishing new overall and comprehensive structural principles of the education system. It was organised as an overarching regional-local social innovation process for the following objectives:

- improving, changing, and creating new social practices concerning social roles, relations, norms and regulations,
- going beyond existing borders and pure networking,
- following the aim of a strict user focus instead of the traditional institutional focus.

HESSENCAMPUS (HC) was initiated by the Ministry of Culture in the German federal state of Hessen in 2006 in order to further develop adult education through a binding cooperation of mainly public educational institutions in a new and innovative regional-local partnership and structure ("HESSENCAMPUS") referring to different local framework conditions. More than 200 actors (79 schools, mostly adult and vocational schools; 51 training institutions; 25 employer associations and employment agencies; 13 regional or local administration departments, and

others) developed more than 100 different operational fields, products and solutions leading to 21 different regional governance structures and topics.

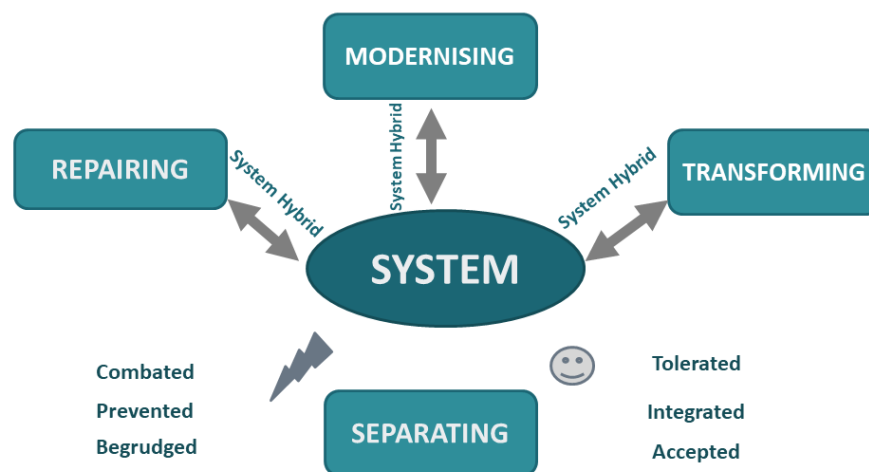
Based on public responsibility for education of the Land Hessen (Germany), development and co-creation in partnership was providing a common ground and a cautiously formulated framework of development aims and procedures. With such a social innovation process, existing structures and responsibilities were changed leading to organisational education and learning and system changes in correspondence to the regional-local demands and overarching cross-regional support and legislation structures. Tensions appeared, because of the need of structural changes concerning the own organisation. Learning in, by and between the organisations became a day-to-day management and governance task.

Within a process of collective creation (Crozier & Friedberg, 1993) this social innovation process finds its challenges and success within binding structures going beyond pure networking accepted by all the involved actors with increased demands for the organisational model and the management of this improved networking (for further information see Schröder, 2012).

The two examples demonstrate organisational education and learning on the local (TBfW) and the regional-local cooperation level (HC). They illustrate not only the capacity of local or regional actors to innovate where social needs are present, but also the learning in, by and between organisations, leading more or less to new educational structures.

Some of the analysed case studies in the framework of SI-DRIVE are local initiatives within the formal system of education. Other initiatives are part of the non-formal education system, but they represent initiatives by actors that identified social, educational, and economic needs and create partnerships with different institutions to attend these needs. As elaborated by Rabadijeva et al. 2018, the education system is affected by social innovation initiatives through modernizing, repairing, and transforming the system and therefore its organisation, (see Figure 2). Even separated and “standing outside” innovations have an impact on the system and its organisation by showing additional solutions for solving educational demands.

Figure 2. Typology of Social Innovations in the Field of Education.



Source: Rabadijeva et al. (2018, p. 86).

2.2. Sectoral Skills Alliances Development as Educational Social Innovation Processes (ESSA and SPIRE-SAIS)

To solve education and training related challenges due to recent technological developments (green and digital transformation) there are several approaches on the company, the sectoral and European level. On the European level, sectoral, network and workplace related solutions are favored. E.g. the European Workplace Innovation Network (EUWIN,

<https://workplaceinnovation.eu/euwin/>) promotes “the concept of workplace innovation throughout Europe as a way of enhancing capacity for product, service and process innovation, increasing business competitiveness and creating better working lives for our citizens”. The European Commission renewed the already existing New Skills Agenda in 2020 and set up a “sectoral Blueprint” Program under the funding scheme of ERASMUS+ (recently comprising more than 20 sectors). Our international projects ESSA³ and SPIRE-SAIS⁴ are part of this program, funded by the European Commission. They are part of the European New Skills Agenda and aim at establishing alliances of stakeholders: ESSA in the steel sector and SPIRE-SAIS for Industrial Symbiosis embedding eight energy-intensive sectors of SPIRE⁵ across Europe, in order to detect and tackle changes in skill requirements proactively. This includes defining new training and curricula requirements and new ways of short-term implementation in companies and VET systems. They will result in a Blueprint of a coherent upskilling scheme and efficient management of knowledge. The other main objective of these projects is to identify and recommend political support measures by integrating stakeholders and policy makers of the EU and national level into the learning process of the project. Also, there is the objective of raising the attractiveness of the industries for recruitment and retention of employees and to install Key Performance Indicators (KPIs) to monitor success and adjustment needs of the skill strategy continuously.

Concepted as a social innovation process the cooperation between the different stakeholders requires different learning processes within the participating organisations, between them and between different levels of organisations and political institutions. The social innovation process combining technological and social innovation (Kohlgrüber et al., 2019; Kohlgrüber & Schröder, 2019; Howaldt, 2019) relies on the involvement of representatives of relevant stakeholders from companies, training providers, associations and social partners, to policy makers. Identifying industry related skill gaps resulting from the digital and green transformations, the new strategies and alliances are looking for a proactive adjustment of and reducing the mismatches with new training arrangements and offers with support of the different national VET systems.

To establish a sustainable coherent and concerted European skills strategy and alliance the ESSA Blueprint plans to set-up (a) a European Steel Technology and Skills Foresight Observatory (ESSA ETF) (demand side), and (b) a European Online Training Ecosystem (ESSA OTS) as well as Regional Skills and Training Ecosystems (ESSA RTS) (supply side) (Schröder 2020).

After inaugurating European governance and leadership structures, a rollout of the European Steel Skills Alliances to the EU Member States is planned, especially focusing on a number of European steel regions (ESSA) and regional Hubs for Circularity (SPIRE-SAIS), combining European Online Training Ecosystems with Regional Training Ecosystems, involving the main stakeholders of the region (see Schröder, 2020).

The described social innovation process based on the cooperation of a huge number of stakeholders that form a diverse and heterogeneous partnership means that there are a number of challenges for this process to be successful. The perspectives of the different stakeholders, their knowledge and opinions, their different interests and ideas have to be understood and then, in the process, aligned and harmonised in order to be able to develop and act according to a common strategy. There are not only stakeholders from different domains such as education, policy, private economy and associations but also different levels of organisational hierarchies and policy frameworks, meaning that there are European, national and regional organisations

³ Blueprint “New Skills Agenda Steel”: Industry-driven sustainable European Steel Skills Agenda and Strategy (ESSA) - Erasmus+ Programme Key Action 2 - Cooperation for innovation and the exchange of good practices - Project Number: 600886-EPP-1-2018-1-DE-EPPKA2-SSA-B <https://www.estep.eu/essa>

⁴ Blueprint Skills Alliance for Industrial Symbiosis: A Cross-Sectoral Blueprint for a Sustainable Process Industry” (SPIRE-SAIS) - Erasmus+ Programme Key Action 2 - Cooperation for innovation and exchange of good - Project Number: 612429-EPP-1-2019-1-DE-EPPKA2-SSA-B <https://www.spire2030.eu/sais>

⁵ SPIRE Sustainable Process Industry through Resource and Energy Efficiency is a public-private partnership under the EU Horizon 2020 program <https://www.spire2030.eu/>

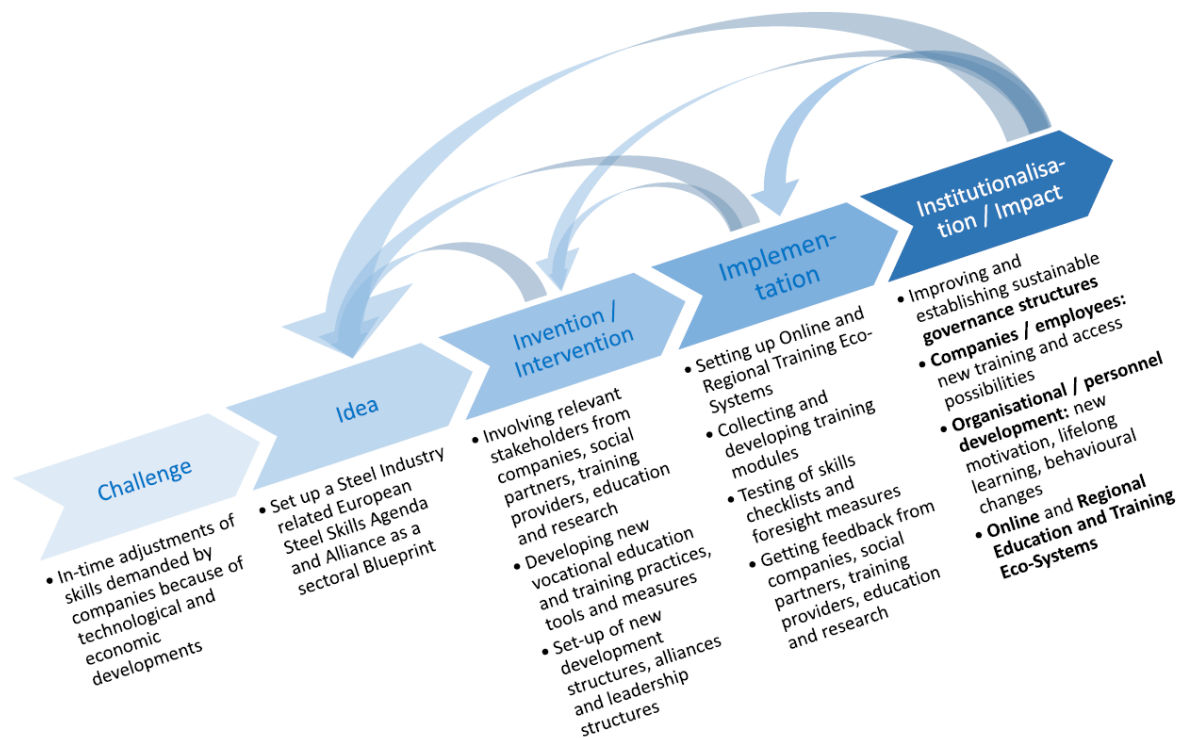
involved who themselves act in European, national or regional policy frameworks and fields of action. When the different stakeholders collaborate, they need to understand each other and learn from each other to a certain extent in order to discuss their goals and lines of action within the project. Various aspects such as working cultures, VET systems, and legal frameworks need to be considered when working together on such kind of social innovations.

Not only the different organisations and levels of organisation have to be reflected, but also the different aspects of the social innovation process. Setting up the development of the Blueprint as an industry driven social innovation process means that technological, organisational and social aspects and impacts were considered right from the beginning of the process in an interrelated way. It also means that the workers, trainees and responsible managers of the companies have to be included in the development process, integrating their know-how and ensuring their view on both demands and solutions (see Schröder, 2020).

The social innovation process sets “ground for a continuous improvement process embedding technological innovations and their impact on the skills needs of the workforce leading to a proactive adjustment process” (Schröder, 2020, p. 21). By establishing new social practices that help to better adjust skill supply to skill demand and which facilitate direct and useful ways of communication between the partners and involved stakeholders, the process of social innovation does not stop with the end of the project. The new practices are shaped during the project in a process of mutual learning and co-creative strategy development will continue in the newly formed networks, structures and institutions.

The process in ESSA so far is described in the Mid-term report of the ESSA project, giving a more concrete insight into the process of social innovation: “Starting with the challenge of adjusting skills needs because of new technological and economic development, the idea of a sectoral Blueprint offered by the European Erasmus+ program was taken up, leading to the intervention of setting up a first European Steel Skills Agenda and Alliance (Blueprint) with the interested stakeholders from companies, training providers, and social partners (steel associations and unions), testing the developed Blueprint during an implementation phase, and setting the claims for institutionalisation and impact right from the beginning. Already in the planning of the project iterative and cyclical feedback loops were designed, ensuring upgrading of the interventions and implementation of the Blueprint during the course of the project and beyond.” (Schröder, 2020, p.21). Additionally, the project agreed on process-oriented Key Performance Indicators (KPI) (such as stakeholders’ involvement and endorsement of the Blueprint) and built in feedback loops that require cooperation at different stages of the project, helping to align common “ideas, objectives, intervention, implementation strategies and the institutionalisation procedures and structures as well as the impact.” (Schröder, 2020), (see Figure 3).

While the process of social innovation in the SPIRE-SAIS project is planned similarly, one challenge lies in the cross-sectoral depiction of the process. In addition to the different domains and organisational levels of organisations interacting with each other, in SPIRE-SAIS eight different industry sectors seek to join forces in order to better detect skill gaps and adjust skill provision for Industrial Symbiosis. The establishment of systems of Industrial Symbiosis requires the collaboration of these respective sectors in a social innovation process being particularly complex. SPIRE-SAIS has the potential to create new social practices which solve the problem of skill gaps currently complicating and hindering the establishment of Industrial Symbiosis by leading to new networks, structures, governance and institutions enabling the rise of Industrial Symbiosis in Europe.

Figure 3. Blueprint development as a social innovation process.

Source: Schröder (2020, p. 22).

3. Organisational Education as Inherent Part of Social Innovation

The examples above show that organisational change and learning is pushed by social innovation initiatives and processes to modernize, repair and transform organisational challenges and system failures. Social innovation initiatives, as shown in the examples of SI-DRIVE and the sectoral Skills Alliances like ESSA and SPIRE-SAIS, are platforms for learning in, by and between organisations within a social innovation process engaging relevant stakeholders. These stakeholders reflect and learn within and beyond their own organisations, give input of their own organisations, learn by inputs from other organisations and the organisations together co-create common solutions, exchanging knowledge and learning between organisations.

3.1. Collaborative Networks and Organisational Learning as Social Innovations in Education

Looking at recent advances in research on social innovation and organisational education, we can identify relevant interaction points within the SI-DRIVE examples TBfW and HC, such as continuous learning and knowledge exchange of organisations. New collaborative work structures appear, where networks of organisations develop new strategies of solving problems and new strategies of collective learning, as well as new institutional settings in order to improve performance and (re-)distributed responsibilities among actors.

SI-DRIVE provides some examples of innovation in education, especially where new forms of governance are built and the change in institutions is a consequence of a sum of smaller and progressive innovations through new ways of collaboration and interaction between actors and emerging networks. This means that the role of the actors and stakeholders is re-invented, e.g. by the empowerment of the local actors to solve social demands and societal challenges in its local appearance. This process of giving an important role to each stakeholder in a social innovation process helps to build ecosystems, solving problems with divided actions and responsibilities, combining different accesses and competences ("the sum is more than its single parts", actors are mutually pushing each other). This means that a demand-adequate and mutually aligned

coordination strategy needs to be implemented at the local, regional, and national level (Schröder, Krüger & Kuschmierz, 2017). Additionally, innovation in education is present in new learning arrangements, where actors agree on new settings and new roles. These kinds of arrangements create different and actor and topic specific environments of collaboration and networking, supporting bottom-up initiatives and learning through empowerment and capacity building. And, if successful they lead to new (institutionalized) practices of change (Schröder & Kuschmierz, 2017).

3.2. Sectoral Blueprints as Organisational Learning and Education

In the Skills Alliances, the representatives of the participating organisations (namely companies, training providers, associations, trade unions, research organisations, regional administrations) learn while conducting the foreseen research and development activities during the project, thus learning in, by and between organisations. This knowledge is the background to analyze or organize the detection of changes in tasks, work organisation, job roles, structures of communication in other organisations and thus initiate a process of learning in the organisations.

One of the key elements of the Alliances is the establishment and fostering of exchange and networks between a whole range of stakeholders of the involved European sectors. During meetings, during the research and structural development as well as through the common elaboration of new tools, upskilling-schemes, and governance structures, the network and participants from different organisations learn from each other and provide a platform for the learning between organisations. This can happen in all constellations of the participating organisations and is explicitly part of the project.

HESSENCAMPUS shows that under the common framework and governance structure every one of the 21 regions in Hessen developed their own regional structure of lifelong learning, with different actors, topics and activities. In ESSA and SPIRE-SAIS the partnerships are composed of more than 30 consortium and associated partners, covering the industry sectors and allowing a rollout of the European Blueprint to specific and diverse implementations at the member states and industry regions. The transnational and multi-stakeholder composition of the partnership is based on already existing platforms and networking on the European and national level ensuring the European, member states, and for ESSA the steel regions' integration.

Thus, we can interpret the organisational learning between organisations within the alliances to be contextually multi-layered embedded (Göhlich et al., 2018, p. 207). The communication between different levels of policy scope is one of the goals of the projects, trying to create a coherent and aligned European strategy of skill provision for the steel and energy intensive sectors in Europe. The organisational learning in, by and between organisations are at the same time method and goal of the Alliances.

4. Conclusions

In terms of the research topics that the Research Memorandum Organisational Education (Göhlich et al., 2018) proposes, all six of them are interlinked with both social innovation initiatives and examples of alliances discussed above. Some specific relationships are given for the following points:

- Organisational learning structures and processes (topic 1).
- The protagonists of organisational learning (actors giving policy advice in order to change the general framework for organisational learning) (topic 2).
- General framework conditions of organisational learning (capabilities and constraints) (topic 3).
- Specific types of institutionalized support for organisational learning and Organisational Education (topic 4).
- The examples include organisational learning in specific fields of practice (topic 5), namely skills development across the different job profiles of the steel sector in ESSA

(Schröder, 2020) and skill development for employees and managers that deal or will deal with Industrial Symbiosis or Energy Efficiency within the companies and the cross-sectoral cooperation of the different SPIRE sectors. Also relevant job profiles and occupations will be selected and targeted in a more focused way.

- Finally, the described cases are examples for the type of projects mentioned under research topic 6 for Organisational Education “Institutionalization, professionalization and internationalization of organisational Education” (Göhlich et al., 2018, p. 213) where it says: “At the European level, use of the so-called platform strategies of multi-stakeholder research represents a relevant approach. These not only focus on participatory research, but involve design-based research, integration research and development in a form that is extensively interconnected. As a result, organisational education research is becoming increasingly involved in the debate on the responsibility and responsabilization of science and scholarship.” (Göhlich et al., 2018, pp. 213-214).

HC, TBfW, ESSA and SPIRE-SAIS use platform strategies of multi-stakeholder research in a social innovation process-oriented way. The methods of research are participative, processual and creation-oriented and stand aligned to the Research Memorandum Organisational Education (Göhlich et al., 2018, p. 215).

Social innovation research and organisational education have similarities and can learn from each other. The main link between these two lies in research on innovation and change in institutions and networks. Additionally, the distinction made in the Research Memorandum Organisational Education (Göhlich et al., 2018) between organisational learning in, by and between organisations proved helpful to understand the details of the social innovation process of the described initiatives and projects regarding necessary learning processes and steps of the according communication processes.

The examples and its discussion above illustrate in our view, that social innovation and organisational education research have the potential of learning from each other and develop an interlinked understanding on the theoretical and practical level. Within this article, we identified first interaction points between these two research fields: Further research will contribute to the development of theory based empirical research, illustrating the relevance of social innovation for organisational change, education and learning.

More research is needed in this direction, especially to answer research questions such as: How can research on innovation in education be better theorized? To what extent do organisational learning and social innovation in education describe similar aspects of the innovation process? How can organisational research and social innovation develop a better understanding of networks? Does an organisation learn without applying new social practices? How does external learning differ from internal learning in organisations?

Against this backdrop and from a social innovation point of view, the concept of organisational learning in, with and between organisations could be integrated in the research and implementation of social innovations in order to create a better comprehension and connection between the two still separated research fields. The integration of this concept will help to improve theoretical and empirical research on social innovation. Especially through the impact of (mutual and internal) organisational learning processes on the development, implementation and scaling of social innovations. But also by improving specific tools of social innovation research, such as co-creation, cooperation and networking.

This enriches social innovation by emphasising the organisational perspective, while at the same time organisational learning benefits from the contribution of social innovation and its integration into its holistic view. Furthermore, some contributions are evident in the development of learning capacities, skills and commitment of actors in educational practices, which represents one of the key areas of social innovation and the field of social innovation in education.

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