

A multi-channel interactive learning model of social innovation

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ABSTRACT

We develop a new model of social innovation (SI) inspired by the multi-channel interactive learning model of business innovation. As opposed to the linear models of innovation, this model does not identify ‘stages’ of business innovation. Rather, it stresses that innovation is an interactive process, in which collaboration among various partners are crucial, as they possess different types of knowledge, all indispensable for successful innovation activities.

Having considered numerous definitions of SI, first we propose a new one, then adapt the multi-channel interactive learning model to SI. To do so, we identify the major actors in an SI process, their activities, interactions, modes of (co-)producing, disseminating and utilising knowledge. We also consider the micro and macro environment of a given SI.

We illustrate the analytical relevance of the proposed model by considering three real-life cases. The model can assist SI policy-makers, policy analysts, as well as practitioners when devising, implementing or assessing SI.

JEL codes: O35, O30, J71, G21, L31, O18

Keywords: Definitions and models of social innovation, Business innovation studies, Multi-channel interactive learning, Microcredit industry, Roma minority, Social housing

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A társadalmi innováció többszörös, interaktív tanulási modellje

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ÖSSZEFOGLALÓ

A tanulmányban a társadalmi innovációk új modelljére teszünk javaslatot, az üzleti innováció többszörös, interaktív tanulási modelljéből kiindulva. Az innováció lineáris modelljeitől eltérően ez a modell nem arra törekszik, hogy szakaszokra bontsa az innovációs folyamatokat. Az innovációs szereplők közötti együttműködést állítja a középpontba, mert a szereplők között megoszlának azok a tudáselemek, amelyek mind nélkülözhetetlenek a sikeres innovációs tevékenységekhez.

Áttekintjük a társadalmi innováció (TI) eltérő definícióit és modelljeit, és egy általános, új definíciót, illetve modellt javasolunk. A modell legfontosabb elemei a TI szereplői, tevékenységük és együttműködésük típusai, a TI során létrehozott, illetve hasznosított tudás fajtái, valamint a TI mikro és makro környezete.

Három tényleges társadalmi innováció áttekintésével bemutatjuk, hogy az új modell eredményesen használható eltérő TI folyamatok elemzésére, illetve újak tervezésére. A legfontosabb eredményeket elméleti és szakpolitikai következtések formájában foglaljuk össze, és a kutatás folytatására is javaslatot teszünk.

JEL: O35, O30, J71, G21, L31, O18

Kulcsszavak: A társadalmi innováció definíciói és modelljei, Üzleti innováció, Többszörös, interaktív tanulás, Mikrohitelzés, Roma kisebbség, Szociális lakhatás

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1 INTRODUCTION

Business and social innovations have been analysed by a growing number of researchers for a long time. Yet, these two communities apparently still prefer to stay in their own fiefdoms, without putting their feet on the grass of the neighbours. More interactions between these two ‘tribes’ are likely to be highly beneficial, leading to mutual learning in the form of better understanding of innovation and diffusion processes, their drivers, the role of various actors, the interactions – co-operation and competition – among these actors, the sources and types of knowledge generated, diffused and exploited, the economic, societal and environmental impacts of innovations, the structures and operations of innovation policy governance sub-systems, the decision-preparatory and decision-making methods used, the stakeholders involved in these processes, the impacts of innovation policies on innovation processes and performance. In sum, considerable results could be achieved in theorising about, and measuring of, innovation processes, in terms of policy and other practical implications.

Moreover, social innovation (SI) has become a widely used buzzword in recent years. It is portrayed as a solution – almost a panacea – to many different types of societal and environmental problems. We can also perceive this development as a strong impetus to clarify its meaning, the actors involved in SI processes, their objectives, activities and interactions, as well as SI processes, their outcomes and impacts – and thus advance the measurement of SI –, and derive apt policy implications.

Most scholars studying social innovation tend to juxtapose social and technological innovations. In this paper we offer a different distinction, based on the primary objective of innovation activities. In case the primary objective is improving the performance of a firm (e.g. increasing its productivity, profits, and/or market share) we can speak of business innovation, as opposed to other innovation activities of which primary objective is tackling a societal problem, that is, when actors are engaged in social innovation.¹ Thus, it is important to distinguish the objective of innovation and its ‘nature’ or ‘subject’, that is, what is being changed as a result of certain innovation activities. From a different angle, both technological changes (new products and production processes) and non-technological ones (new organisational and managerial solutions, marketing and financial methods, entering new markets, changing existing social networks and structures, the ‘rules of the game’, etc.) can serve either business or societal objectives – just as their combinations.

In other words, we should take into account not only technological innovations when discussing business innovations, but organisational and marketing innovations as well. Thorough empirical analyses of business innovations also show that technological innovations are introduced rarely – if at all – without organisational innovations. Quite often marketing innovations are also required, and finding – or even creating – new markets is also crucial in some cases, in particular when radically new innovations are introduced. Moreover, non-technological innovations are vital for the successful introduction of the technological ones. (Pavitt, 1999; Tidd *et al.*, 1997)

Of course, in real life we also observe ‘hybrid’ types of innovations, that is, applying a business logic, and thus using business organisational forms, methods and approaches when trying to tackle societal problems. Examples can include goods and services provided on a market basis by a firm, but – on purpose – employing people suffering from various types of disadvantages, or firms aimed at serving the needs of disadvantaged people or addressing other societal challenges. These can be termed social enterprises – but in this paper we address ‘hybrid’ innovations only to a limited extent.

Public sector organisations also aspire to improve their operations and performance by introducing innovations. In many cases these innovations have significant societal impacts

¹ Following a slightly different argument, business and social innovations are also distinguished e.g. by Pol and Ville (2009).

and/or even explicitly needed for social innovations, *per se*. Yet, in this paper we only touch upon certain types of public sector innovations when we consider the policy implications of our analysis focussing on SI in a narrower sense.

We compiled an extensive list of major issues above as relevant research questions and objectives. Yet, we set more modest objectives in this paper. First, we consider several definitions of social innovation by recalling the standard definition of business innovations, developed jointly by the Eurostat and the OECD, highlighting some of the major features of this definition. On this basis we develop our definition of social innovations, to be used throughout this paper (section 2). Then, in section 3, we offer a new model of social innovation by relying on the multi-channel interactive learning model of business innovation developed by Caraça *et al.* (2009). We illustrate the relevance of this proposed new model by three real-life cases. Finally, we conclude by drawing theoretical conclusions and deriving implications for SI policy-makers and practitioners.

2 DEFINITIONS OF BUSINESS AND SOCIAL INNOVATION

2.1 The harmonised Eurostat-OECD definition of business innovations

Business innovation – conducted by companies with the aim of improving performance, and thus increasing profits – has been a key issue for researchers, policy analysts, and policy-makers for decades. Although many policy-makers, journalists, natural scientists and other opinion leaders tend to think of innovation as a ground-breaking technological idea, the modern literature on business innovations is based on a different understanding. First, innovation is not an idea, but a solution introduced to the market. Second, not only path-breaking new solutions are defined as innovations; these new solutions are distinguished by their degree of novelty: a solution can be new (i) to the firm introducing it, (ii) to a given market (that is, not only to the firm introducing it, but to a given country or region), and (iii) to the world.

Technological (product, service, and process) innovations, organisational and marketing innovations are defined by the Oslo Manual (OECD, 2005), aimed at providing guidelines to interpret and measure innovations introduced by businesses. Interestingly, market innovations, that is, entering into, or creating, new markets to purchase inputs or sell outputs (not to be confused with marketing innovations) are not mentioned by the Oslo Manual (although these are parts of the classic description of innovation by Schumpeter, and important ones, indeed). Perhaps it would be almost impossible to measure these crucial innovations.

Further, financial innovations are not mentioned, either, in the Oslo Manual as a separate category. Certain types of financial innovations can be interpreted as service innovations (e.g. new financial ‘products’), while others (e.g. e- and m-banking) as new business practices, that is, organisational innovations using the definitions presented in the Oslo Manual.

2.2 The plethora of SI definitions

Certain authors claim that social innovation has a long history. For example, Godin (2012) considers social innovations from the first third of the 19th century to the present. He is using radically different meanings of social innovation over time: socialism, social reform, and alternatives to ‘established’ solutions to social needs. This rather broad interpretation of SI might be interesting from a historical perspective, showing how diverse is the use of this term by various authors in different periods. Yet, it might also cause some confusions.

Drucker (1957: 23) also posits that “In respect to social innovation it goes back almost two hundred years. The Northwest Ordinance of 1787, which innovated the pattern of settlement and government for the empty North American Continent, was an early example.” He stresses that social innovation is different from reform and revolution: “Unlike reform it does not aim at curing a defect; it aims at creating something new. Unlike revolution it does not

aim at subverting values, beliefs and institutions; it aims at using traditional values, beliefs and habits for new achievements, or to attain old goals in new, better ways that will change habits or beliefs” (Drucker, 1957: 45). Using modern terminology, various types of public sector innovations, e.g. educational methods and hospital administrations, together with organisational innovations leading to productivity gains, as well as marketing practices are all under the ‘umbrella’ of social innovation. Again, this ‘umbrella notion’ is so broad that it can be easily misleading and confusing.

A very large number of SI definitions were proposed in the last few decades: for example, 76 definitions are reviewed in Edwards-Schachter *et al.* (2012), 252 definitions, published between 1955 and May 2014, are identified in Edwards-Schachter and Wallace (2017), while 12 “archetypal definitions” are considered in Benneworth and Cunha (2015). Clearly, we cannot offer an overview of this plethora of SI definitions, let alone a thorough analysis of them. It can be claimed, however, that these definitions – as opposed to our approach – juxtapose social vs. technological innovations. It is characteristic that the most ambitious attempt to analyse SI definitions is set out “to better draw the frontier lines between SI and ‘classical’ technological innovation and other innovation types” (Edwards-Schachter and Wallace, 2017: 65).

We present a few SI definitions to highlight some major methodological shortcomings. The first selected definition is coined by Heiskala (2007: 74) as „changes in the cultural, normative or regulative structures (or classes) of society that *enhance* its collective power resources and *improve* its economic and social performance”. (emphasis added)

The second one is proposed by The Young Foundation (2012: 18): „Social innovations are new solutions (products, services, models, markets, processes etc.) that simultaneously meet a social need – *more effectively than existing ones* – and lead to new or *improved* capabilities and relationships [or collaborations²] and *better use of* assets and resources.” (emphasis added)

A third one is given by Moulaert *et al.* (2013: 16): „(...) acceptable *progressive solutions* for a whole range of problems of exclusion, deprivation, alienation, lack of wellbeing and also to those *actions that contribute positively* to significant human progress and development. (...) Socially innovative change means the *improvement of* social relations – micro relations between individuals and people, but also macro relations between classes and other social groups.” (emphasis added)

Finally, for Rehfeld *et al.* (2015: 6) “Social Innovation refers to novel combinations of ideas and distinct forms of collaboration that transcend established institutional contexts *with the effect of empowering* and *(re)engaging* vulnerable groups either in the process of social innovation or as a result of it.” (emphasis added)

The first major shortcoming of the above definitions is that a positive impact is stressed as a crucial feature in all of them, highlighted by us using italics. Innovations – be they business, social or “hybrid” innovations – usually have different types of impacts – social, economic, and environmental –, affecting various actors in different ways. These impacts can only be assessed by thorough analyses of actual innovations, in a given context, from a certain angle, that is, applying a relevant set of evaluation criteria and methods. A definition of any type of innovation, therefore must not include any positive (or negative) impact.

The way, in which Lundvall (2007) uses the term ‘function’ in relation to national systems of innovation³ might be applied to refine the definition of social innovation: instead of assuming (stating) a positive impact in the definition itself, that could be stated as a function (the main

² This element is added to another version of the definition, available at <http://siresearch.eu/blog/defining-social-innovation>.

³ „If I were to assign a function to the national system of innovation I would be more specific than defining it as just ‘pursuing innovation’ and propose that the function is to contribute to economic performance on the basis of processes of creation and diffusion of knowledge. This corresponds to the normative focus of those who pioneered the NSI-concept.” (Lundvall, 2007: 15)

objective) of social innovation. Among the numerous definitions of SI there is one with this type of additional explanation: “Taking its cue from Schumpeter’s basic definition of innovation, social innovation is seen as a new combination of social practices in certain areas of action or social contexts. What distinguishes social innovations from other manifestations of social change is that they are *driven by certain actors in an intentional targeted manner with the goal of* better satisfying or answering needs and problems than is possible on the basis of established practices.” (Howaldt and Hochgerner, 2018: 19, emphasis added) It should be noted, however, that SI is confined (restricted) to social practices in this definition, that is, neglecting the diversity of SI activities and processes.

Yet, for many observers, journalists, and lay persons innovation has a positive connotation. We further elaborate on this issue in the next sub-section, recalling that innovations might actually have negative impacts.

2.3 Diverse impacts of innovations

The four definitions of social innovation considered above explicitly state that social innovation leads to improvement in one way or another. The main thread in the literature on business innovation is somewhat similar: innovations are supposed to lead to improvement in properties of goods, productivity and performance of firms, health conditions of people, use of inputs and so forth. Ultimately, all these changes amount to an increase in the wealth of nations. It should be added, however, that business innovations, characterised as ‘creative destruction’, have a destructive element as well: incumbent firms – producers of existing goods and providers of available services – need to adjust by abandoning some of their previous activities, giving up certain markets, shedding labour, reorganising their processes, changing management and other practices, etc. It is a crucial feature of market economies that firms are driven out of business by more efficient competitors. The net impact is still assumed to be positive, given the advent and subsequent rise of the new entrants.

Having searched the EBSCO and Google Scholar databases, Sveiby *et al.* (2009) found a mere 26 articles, published in peer-reviewed journals, that analyse undesirable consequences of innovation, that is, around 1 per 1000 article with ‘innovation’ or ‘new product development’ in its title. The authors also stress that given their search methods, certain discourses – or major issues – are not presented in the 26 articles identified and analysed by them: e.g. environmental consequences, side effects of medicines, or failed product introductions. These are substantial concerns, no doubt. They conclude that undesirable consequences of innovation are (i) analysed in other discourses than the ones on innovation; (ii) constructed with [grasped and explicated by] other terminologies; and (iii) from other perspectives than innovation research. Usually, undesirable consequences are considered e.g. in biology, medicine, environmental studies and sustainable development, using theoretical frameworks relying on sociology, STS (science, technology and society), ethics or other domains (*ibid*: 14). This is an important observation from the point of view of analysing social innovations: besides innovation studies, other fields of enquiries can be at least as important.

The initial, still widely held, optimistic assumption concerning business innovations has been questioned in some instances, and not only because of the financial innovations causing the 2008 global crisis. Lock-in in inferior technological trajectories had already been analysed in the 1980s (Arthur, 1989; David, 1985) and since then other types of lock-ins have been identified (see e.g. Malerba, 2009 for further details). The negative health and environmental consequences of widespread motorisation were also well-known at that time. (Barker, 1987; cited in Pol and Ville, 2009) Further, a special issue of *Technology Analysis & Strategic Management* addressed two major questions: „Innovation – But For Whose Benefit, For What Purpose?” (Hull and Kaghan, 2000).

More recently, building on Calvano (2007), Soete (2013) explores the drivers, mechanisms and consequences of ‘destructive creation’ that benefits the few at the expense of the many. Examples include innovations driven by the idea of „planned obsolescence purposely limiting the life-span of particular consumer goods” (*ibid*: 138), e.g. fashion goods, restrictive

aftermarket practices reducing the value of existing products (by limiting backward compatibility of software packages, ceasing to supply spare parts for the previous models of machinery and electronic equipment, as well as limiting their ‘reparability’ in other ways). In brief, ‘destructive creation’ hampers prolonged use of consumer goods and drive customers to continuously ‘upgrade’ their gadgets. ‘Forcing’ ever more new products onto the markets eventually leads to unsustainable consumption growth patterns and environmental degradation.

Probably by now the most widely known cases of destructive innovations are those financial ones that have been introduced in the name of ‘dispersing the risk’, but in essence allowing a few, well-informed and well-positioned actors to realise substantial profits while putting a huge burden on society as a whole. (*ibid*: 141–142)

‘Hybrid’ innovations, that is, business innovations combined with a social goal, might also lead to undesirable impacts. A case in point is the introduction of the multiple-fuel stove, developed by large multinationals for poor people living in rural areas or slums in developing countries. This type of stove burns cow dung and biomass, although these fuels are not only extremely inefficient, but also dangerous to use, given the smoke inhaled from indoor fire. No wonder, Soete (2013) is rather critical towards these types of innovations: „This is where BoP [bottom of the pyramid] innovation takes on (...) a new meaning in line with its creative destruction nature.” (*ibid*: 139) He stresses the importance of „grassroot innovations” to reverse these processes by introducing functional solutions to satisfy the needs of ‘BoP’ users, taking into account their framework conditions (extremely low disposable income, poor physical infrastructure conditions [energy, water, transport, communications networks, etc.]), as well as the idea of ‘cradle to cradle’ innovations, based on the idea of local re-use of inputs. Although it is not mentioned by the author, reparability is also a key notion to make these innovations affordable, limit their harmful impacts on the environment, and create job opportunities.

Returning to social innovation, it may also have a ‘dark side’ (Nicholls *et al.*, 2015: 5–6). Clearly, no society is homogenous, not even those social groups that are marginalised and disempowered: their members still have their own values and views, and thus might perceive a certain change process and its effects in different ways. Moreover, a particular measure/solution that improves the situation of some groups can, in fact, affect other groups negatively – and not because they perceive in that way, but as an actual (‘neutrally measurable’) impact.

In Section 4 we present in more details two examples of the ‘dark side’ of social innovation: inadequate interventions can even further aggravate the position of marginalised groups, namely poor people in several continents and the socially excluded Roma in Hungary.

2.4 Unit of analysis and degree of novelty

It is not our intention to assess which of the above SI definitions is more adequate than the other one(s) – that would obviously depend on a particular research question and the subject of analysis, and thus there is no definite, firm answer to such a question. Probably that would be an overambitious attempt, given the diversity of activities currently labelled as social innovation: „(...) the range and variety of action that constitutes social innovation today defies simple categorisation.” (Nicholls *et al.*, 2015: 1)⁴

An elementary methodological observation, however, is still in order: *the unit of analysis (observation) is different in the above definitions*. In other words, these definitions seem to be applicable (relevant) for different analytical tasks.

⁴ The same study makes an attempt to introduce a more systematic way to consider the various definitions of social innovation offered by various authors by distinguishing two approaches: definitions focussing on new (a) social processes or (b) social outputs and outcomes (Nicholls *et al.*, 2015: 2).

When analysing actual SI cases, e.g. in the CrESSI, Creating Economic Space for Social Innovation project (Nicholls and Ziegler (eds), 2019), the unit of analysis has been a particular innovation project. The CrESSI definition of SI⁵ indicates that this change can occur at different socio-structural levels. What is not specified clearly enough in this definition whether it is relevant for (i) a single social innovation project, (ii) a ‘bunch’ of social innovation projects occurring concurrently – or even in a co-ordinated way – at different socio-structural levels, or (iii) both types (both units/ levels of analysis). Taking the first interpretation, it should be added that in real life a single social innovation project actually might be a ‘bundle’ of technological, business model, organisational and marketing innovations, aimed at tackling a certain societal challenge.

The definition by Moulart *et al.* (2013) seems to cover both single social innovation projects and a ‘bunch’ of social innovation projects occurring concurrently. Finally, the definition by Heiskala (2007) is only concerned with the changes in macro-level structures, i.e. not with a single social innovation project.

Nicholls *et al.* (2015: 3–4) introduced the notion of „levels of social innovation”. The first level is *incremental*, that is, exactly the same term as the one used in the analysis of the degree of novelty of business innovations. In essence, however, it covers both incremental and radical change (see sub-section 3.2) at the level of goods (products and services) that „address social need more effectively or efficiently” (*ibid.*: 3).

The second level, called *institutional innovation*, concerns activities that aim to „harness or retool existing social and economic structures to generate new social value and outcomes” (*ibid.*: 3), or „reconfigure existing market structures and patterns” (*ibid.*: 4). To avoid a possible misunderstanding, it is worth recalling that certain economics schools, notably institutional economics and evolutionary economics of innovation, as well as sociology make a distinction between organisations and institutions, the latter ones being the ‘rules of the game’. (Beckert, 2009, 2010; Edquist and Johnson, 1997; North, 1990)⁶ Using that vocabulary, ‘institutional innovation’ actually refers to structural changes. It cannot be excluded, however, that a more detailed explication of ‘institutional innovation’ would state that certain structural changes (e.g. the emergence of new actors in a given societal or socio-economic setting) are likely to lead to some changes in the ‘rules of the game’, too, and thus a more precise notion to denote these social innovations would be ‘structural and institutional innovations’.

Taking the third level, „*disruptive* social innovation aims at systems change”. (*ibid.*: 3) That includes changes in power relations, social hierarchies, and cognitive frames, and could be initiated by various actors, such as members of social movements, political parties, coalitions of individuals with strong common interests (united by a specific issue) or policy entrepreneurs in state structures with a reform agenda. It seems to be an overarching term with a rather ‘wide arch’, but could be a good starting point for more detailed empirical analyses. For instance, by analysing real-life cases, it might be possible to elaborate a more refined version of this notion, distinguishing different types of changes in a given system, that is, introducing a more fine-grained granularity. The literature on business innovations also suggests that disruptive innovations can occur at various levels, not only at the level of socio-economic systems. In other words, it is easier to understand ‘disruptive’ as an adjective denoting the degree of novelty rather than indicating the level (subject) of change.

To disentangle different (relevant) units of analysis when studying social innovation, it might be useful to consider various notions introduced in the literature on business innovations with the intention to identify several levels of change. That issue is closely related to the degree of novelty, to be discussed in the remainder of this sub-section.

⁵ „The development and delivery of new ideas (products, services, models, markets, processes) at different socio-structural levels that intentionally seek to improve human capabilities, social relations, and the processes, in which these solutions are carried out.”

⁶ This paper is certainly not aimed at attempting an impossible task, namely considering how various authors use these two terms and why they do so.

A standard question in innovation surveys relates to the degree of novelty. A given innovation can be new to the firm, to the market (in a given country or region) or to the world. For pragmatic reasons, the Community Innovation Survey (CIS) uses only the first two categories: it would be too difficult for the respondents to judge – and subsequently too difficult for experts to check – if a given innovation is new to the market in a given country (region) or to the world. Of course, in rare cases, e.g. when the first digital camera, mobile phone or tablet is introduced, it is easier to establish that a certain product is new to the world, but even in these exceptional cases there could be some difficulties to establish which product variation (by which company) has been introduced first – and successfully.

This issue is closely related to the classification of (business) innovations. In qualitative analyses the following categories can be used. New *goods* (that is, products or services) might represent an *incremental* or a *radical* change (innovation).⁷

In real-life cases the borders are often blurred between incremental and radical change, e.g. the ‘bottom-of-pyramid’ markets⁸ seem to ‘sit’ on the border. This example also shows that technological changes (the development and production of modified or brand-new products that these customers can afford) are only viable when the business model and several aspects of management and marketing methods (perception of a large group of previously ‘unserved’ people as a new ‘market segment’, adaptation of pricing, marketing and sales methods to these new opportunities, etc.) are changed at the same time and aligned with each other.

Some of the considerations related to business innovations might be useful when analysing social innovations in a qualitative way. Yet, compared to technological innovations, it is likely to be even more difficult to establish the degree of novelty of a given social innovation: is it new to a certain community (at a local or neighbourhood level), to a country or to the world? Actually, the degree of novelty seems to be of lesser importance in these cases: usually intellectual property rights are not an issue for social innovators. Of course, social status (image and self-image) – being inventive and obtaining recognition for that – might play a role: it could give some impetus to initiate a certain social innovation project or contribute to it. It is an empirical task to establish the role of prestige (respect and thus higher social status of social innovators) in SI endeavours.

The literature reviewed above offers some elementary guidance for SI analyses: it is crucial to identify the subject (level) of changes introduced by a given social innovation as clearly as possible,⁹ as well as the degree of novelty of these changes. Further, it is rather likely that a real-life SI – especially when it is analysed longitudinally – is actually composed of various types of changes both in terms of subjects (levels) and degree of novelty, and thus it might be instructive to ‘decompose’ it by identifying the distinctive ‘components’, as well as the interconnections between these elements.

To sum up, the literature on business innovation stresses the need to identify the subject (or level) of change and has developed relevant notions to perform detailed analyses. Social innovation researchers, however, define the unit of analysis (level of change) differently, from changes at the micro through meso level to the society as a whole. (This is not to be confused with the degree of novelty.) Both for SI practitioners and policy-makers, it is also of crucial relevance to have a clear objective as to the nature of change is aimed at (e.g. organisational, institutional, and/or technological), at what level.

⁷ Further units (levels) of analysis are innovations at the level of technology systems and techno-economic paradigms. See Havas (2016) for a detailed discussion and illustrations.

⁸ As Prahalad (2005) stressed, it could be a viable strategy to serve the billions of people who are at the bottom of the income pyramid, that is, perceive them as customers at a huge new market.

⁹ Lack of clarity in SI research in this respect has also been noted by Cajaiba-Santana (2014): “Previous works have failed to state clearly their level of analysis and where the social innovation analysed occurs.” (p. 48) He has distinguished social innovations occurring at the levels of intra social group, inter social group, and extra group (that is, at the macro level).

2.5 A proposed definition of social innovation

Based on the above considerations, we propose the following general definition of social innovation: *Social innovations are novel solutions or novel combinations of known solutions, aimed at tackling a societal problem or creating new societal opportunities.*

Societal problems can be identified by a person or a social group affected by the problem, external actors, or jointly. Similarly, potential new societal opportunities can be identified by a social group, which is likely to benefit from this new opportunity, external actors, or jointly. The level of intended changes (that is, the unit of analysis) and the type of intended changes should be determined when an actual SI is analysed. The same goes for the outcomes and impacts of a given SI.

One implication of this definition is the distinction between social change and social innovation. The former can be an intended or unintended result of various processes, while in the case of the latter there is always an intention to achieve certain changes in order to tackle a societal problem or create new societal opportunities.

The most important distinctive features of our proposed definition are as follows:

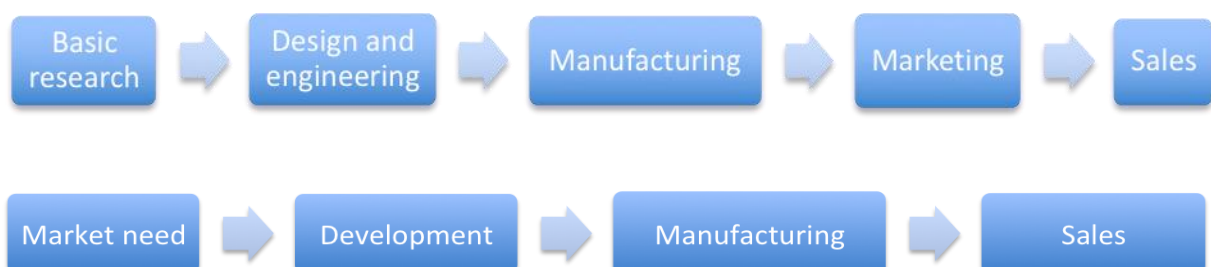
- It contains the intention of social innovators, but does not ‘requests’ that a given social innovation must achieve its objectives. In other words, it can be applied to analyse failed social innovations, partially successful ones, or those with mixed impacts.
- It can be tailored to an actual case, as several important characteristics of an SI process can be added (determined) on a case by case basis, in particular the level and type of intended changes, as well as the main actors, who initiate the SI process.
- It draws the attention of SI policy-makers and practitioners to those SI processes, which intend to create new societal opportunities, i.e. it goes beyond the approach when only attempts to tackle a societal problem are considered.¹⁰

3 MODELS OF INNOVATION

3.1 Linear models of business innovation

Two versions of the so-called linear model of innovation had been dominant for decades both in the literature and the mindset of policy-makers and practitioners in the domain of business innovations: the science-push and the demand-pull (or market-pull) model. Both models describe innovation as a linear process, that is, a sequence of activities, following each other. (Figure 1)

Figure 1: Linear models of business innovations



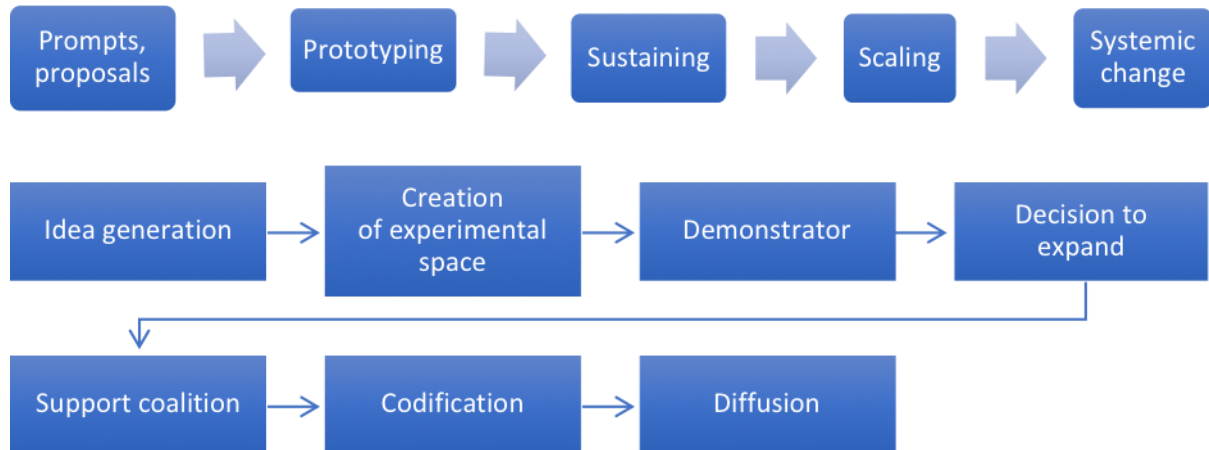
Source: adapted from Dodgson and Rothwell (eds) (1994), Figures 4.3 and 4.4 (p. 41)

¹⁰ In this respect it follows Drucker (1957), as well as those innovation scholars who stress that innovation policies can contribute to creating new opportunities (e.g. new markets), besides tackling systemic failures.

3.2 Linear models of social innovation

The linear model of business innovation has become so much ingrained into the mindset of analysts, that this logic – in a conscious or unconscious way – can be traced in several models of social innovation. Two examples are depicted in Figure 2, while further ones are described – without using the term ‘linear model’ – in Cunha and Benneworth (2015).

Figure 2: Linear models of social innovation



Sources: own compilation, drawing on Mulgan (2006) and Cunha and Benneworth (2013), respectively

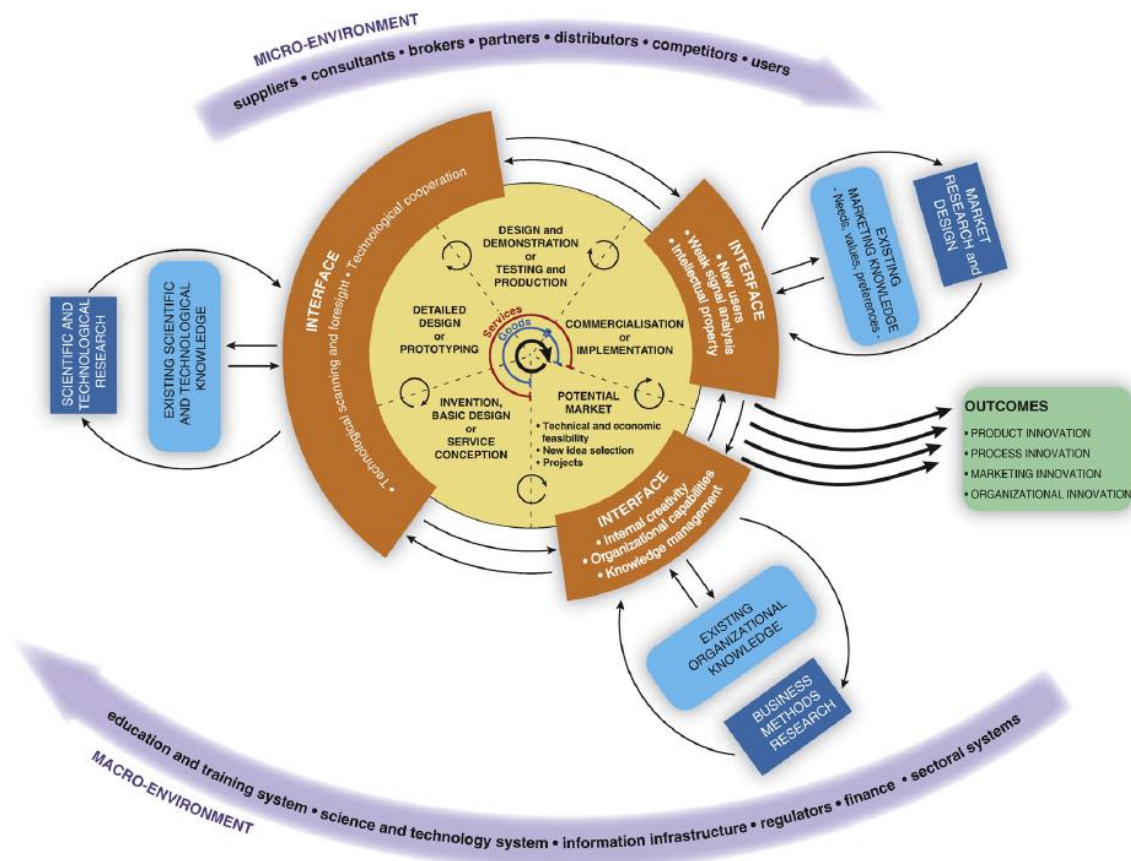
3.3 The multi-channel interactive learning model of business innovation

As opposed to the linear models, the multi-channel interactive learning model of business innovation does not intend to describe innovation processes, it does not identify ‘stages’ or causal links. (Figure 3) Instead, it recognises major actors, the type of knowledge they possess and contribute with to innovation activities, their main types of activities, typical modes of producing, disseminating and utilising knowledge, as well as ways and objectives of co-operation among the major actors, facilitated by various interfaces. In short, this is the micro environment of a given innovation process. Besides that, this model also considers the meso level, that is, the sectoral systems, and the macro environment, composed of the education and training system, the information infrastructure, regulations (and regulators), and the financial system.¹¹

This model, as its name suggests, stresses that innovation is an interactive process, in which feedbacks, iterations and collaboration among various partners are crucial, as these partners possess different types of knowledge, which are all indispensable for a successful innovation activity. Hence, this model can be used as a ‘focussing device’ when analysing an actual business innovation process – not as a description of a ‘typical’ innovation process.

¹¹ The meso level – that is, sectoral systems – is mentioned as part of the macro environment on Figure 3.

Figure 3: The multi-channel interactive learning model of business innovation



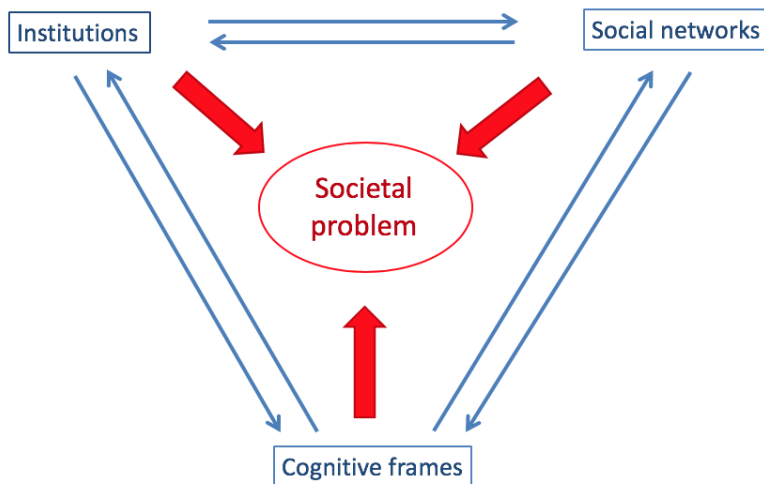
Source: Caraça *et al.* (2009)

3.4 A multi-channel interactive learning model of social innovation

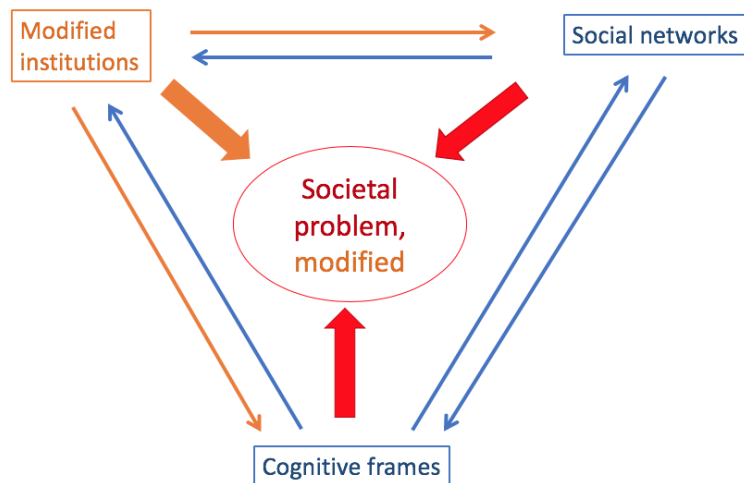
The evolutionary view of innovation posits that innovation is a cumulative, path-dependent, evolutionary process, in which variety generation and selection play major roles. Different types (S&T and practical) and forms of knowledge (codified and tacit) are required for successful innovation. Hence learning capabilities are key to fruitful innovation activities. The required pieces of knowledge are stemming from various sources, possessed by a diverse set of actors. Co-operation among actors – to facilitate knowledge flows, leading to mutual benefits – is, therefore crucial. These observations are highly relevant for analysing SIs, and thus the multi-channel interactive learning model of innovation seems to be the relevant starting point when devising a model of SI processes.

Our intention with a proposed new model of SI is to identify the potential major actors in an SI process, their main types of activities, typical modes of producing, disseminating and utilising knowledge required for social innovation, as well as ways and objectives of co-operation among the major actors, together with the interfaces connecting them.

Generalising the main results of the CrESSI project, we suggest that the reproduction of societal problems, or the possibility to create new societal opportunities are determined by three social forces, that is, institutions (“rules of the game”), networks, and cognitive frames (Molnár and Havas, 2019b; Ziegler *et al.*, 2019). When a societal problem is persistently reproduced, SI practitioners and policy-makers need to take into the interactions of these three social forces: only those social innovations can tackle a societal problem that target all three social forces. (Figure 4) Otherwise, the ‘untouched’ social force(s) is (are) likely to reproduce a given societal problem in a modified form. (Figure 5)

Figure 4: Reproduction of a societal problem: no intervention

Source: own compilation, drawing on Beckert (2010)

Figure 5: Insufficient, failed social innovation

Source: own compilation

A given SI also needs to be sustained, and sufficient funds need to be made available, otherwise the societal problem cannot be tackled, or a new societal opportunity would not be created. These are the typical cases, and causes, of failed, insufficient interventions, using policy language.

In the case of a complex and successful SI, the societal problem is alleviated or significantly eased, but most likely new problems emerge in the same time, either as a direct consequence of a given SI (e.g. the relative or absolute position of those social groups that were not among the beneficiaries of this given SI might deteriorate), or given the changes in the social forces, irrespective of the given SI. As for SIs aimed at tackling marginalisation or transformative SIs,¹² a meaningful qualitative indicator of success would be the empowerment effect of a given SI.

¹² “We conceptualise transformative social innovation (TSI) as social innovation that challenges, alters or replaces dominant institutions in the social context (...). In our understanding, such transformative change is an emergent outcome of co-evolutionary interactions between changing paradigms and mental models, political institutions, physical structures and innovative developments on the ground. Transformative change results from a specific interaction between game-changers, narratives of change, system innovation, and social innovation, as distinct but intertwined shades of innovation and change, each of which has a specific potential to challenge, alter and/or replace dominant institutions.” (Avelino *et al.*, 2019: 198)

SIs aimed at creating new societal opportunities might also fail for similar reasons (efforts are not complex and sustained, resources are insufficient). When such an SI is successful, new societal problems might also occur, especially as the relative or absolute position of those social groups that cannot enjoy the advantages offered by the new societal opportunity created by this SI is likely to deteriorate.

Following this way of thinking about the ways and constraints to tackle societal problems, we put these problems into the centre of our multi-channel interactive learning model of social innovation.¹³ This is a major difference compared to the multi-channel interactive learning model of business innovation (MILMoBI), where innovation activities are in the centre.

There are three main reasons for this modification. The *first* one is a trivial one: as stated in the Introduction, there is a fundamental difference between business and social innovations. The former ones are aimed at achieving a business objective, while the latter ones intend to tackle a societal problem or create new societal opportunities. *Second*, given the longer tradition of thorough analyses of business innovation, and thus the emergence of a widely – though not universally – accepted definition of business innovations, it has been possible to identify the key types of innovation activities. Even so, this model only considers activities needed for product and service innovations, and thus activities leading to other important types of business innovations, in particular market, process, organisational, and business model innovations are not listed. Some of these innovations are mentioned among the outcomes, but only among the outcomes, without explicitly considering the activities needed for these types of business innovations. The reason is likely to be the diversity of these other types of business innovations, which require an even wider set of activities. Clearly, it would be a rather demanding task to identify all these activities – or at least the most important ones. This applies *a fortiori* to social innovations. Thus, *third*, we don't attempt to compile a list of activities required for SIs – at least not at this stage of our own work and at the current state-of arts of SI research.^{14 15}

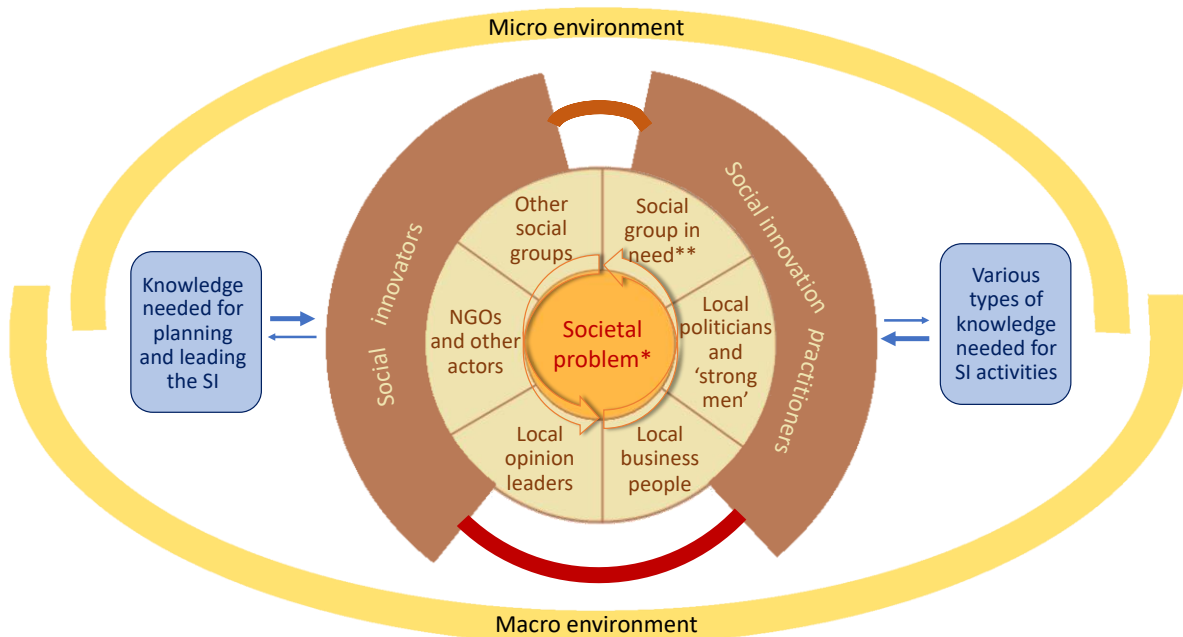
We also need to consider the micro and macro environment of an SI – just as in the MILMoBI –, composed of the education and training system, the cognitive frames on social innovations, the policy governance system for social innovations, the information infrastructure available for social innovators, regulations (and regulators) affecting social innovations, and the funding opportunities for social innovations. (Figure 6)

¹³ Lawrence *et al.* (2014) also put the societal problem into the centre of their “theoretical framework for the study of managing social innovation” (Figure 16.1). They, however, do not consider explicitly either the actors, their activities and interactions, or the types of knowledge (co)-created, used, and disseminated in SI processes as that framework serves a different analytical purpose.

¹⁴ Just to recall an important fact, there is no widely accepted definition of SI yet.

¹⁵ At a rather high level of abstraction, and only for SIs aimed at tackling poverty alleviation, we can compile a preliminary list of necessary activities, more precisely, the goals of a diverse set of activities: activities to (i) build trust among the SI practitioners and the social group affected by the societal problem; (ii) change the relevant institutions, social networks, and cognitive frames of all the crucial actors (on the problem to be tackled, on themselves, on the given SI, ...); (iii) empower the social group affected, e.g. by strengthening their capabilities, fighting learned helplessness; (iv) change the local power structure – and possibly those at higher levels, too.

Figure 6: The multi-channel interactive learning model of social innovation



Source: own compilation, with able technical assistance of Fanni Tóth

Notes: * or new societal opportunity; ** potential beneficiaries of a new societal opportunity

Clearly, both the macro and the micro environment affect a given SI and all its actors, but this is not indicated by arrows in Figure 6 to keep it relatively simple.

The main building blocks of the proposed new model of SI are (i) the actors involved in, or affecting, SI; (ii) the types of interactions among the actors; (iii) the types of knowledge (co-)created, exchanged and utilised for, or during, an SI process; (iv) the institutions governing the interactions among the actors, the flow of knowledge, funds and other resources; (v) the relevant social networks; and (vi) the cognitive frames of the actors.

In more detail, we need to consider the following types of actors when analysing a given SI process:

- the social group in need (affected by the given problem) or a potential beneficiary of a new societal opportunity, and thus ‘targeted’ by, or initiating, a given SI
- other social groups that could be potentially ‘targeted’ by, or initiating, SI
- social innovators: architects and/or leaders of an SI initiative
- other SI practitioners involved, e.g. staff members, volunteers
- local politicians and other decision-makers: ‘strong men’ in general
- non-affected, or only indirectly affected social groups
- local business people
- NGOs
- local opinion leaders, both within and outside the affected social group
- media (both local and national).

Politicians and other decision-makers play a decisive role in setting the formal rules, but also influence the emergence and use of informal rules, at all levels: micro, meso, and macro. Other actors can also influence the relevant institutions.

Cognitive frames are mainly shaped by opinion leaders, but indirectly also by politicians, SI practitioners, and NGOs.

NGOs and local political and business decision-makers are key actors in building, operating and changing social networks, but other types of actors also play their role.

Clearly, all the three social forces interact with each other, e.g. the cognitive frames influence what formal and informal rules are set and how these are applied, as well as how social networks evolve. In turn, social networks have an impact on who are involved in setting the ‘rules of the game’, how these rules are applied, and thus evolving, in practice, as well as on the evolution, propagation and ‘perpetuation’ of cognitive frames.¹⁶

As for the types of possible interactions among the actors, we need to consider the following ones when analysing a given SI process:

- hierarchical vs. reciprocal
- market vs. non-market
- formal vs. informal
- discussing opinions on major societal issues, factors influencing the given societal problem
- knowledge exchange, co-production of knowledge.

For example, politicians and other decision-makers are likely to prefer entering into hierarchical interactions with the actors, while SI practitioners and NGOs typically build and maintain reciprocal interactions. Business people have pecuniary/business interactions with the other actors, whereas social groups, SI practitioners and NGOs keep societal interactions, occasionally with some pecuniary elements. All actors have both formal and informal interactions with the other types of actors, but the “weight” of formal and informal interactions is likely to vary by actors. All actors are involved in knowledge exchange, co-production of knowledge, although play a different role, and contribute with different types of knowledge to these processes.

As already hinted at, these interactions among the key actors influence how the relevant institutions are set and applied, how social networks evolve, as well as how cognitive frames are formed. In turn, these three social forces influence the interactions among the actors.

As for the types of knowledge generated, exchanged and utilised for or during an SI process, we need to consider the following ones when analysing a given SI process:

- codified vs. tacit
- scientific vs. practical
- the content or “substance”: for what purpose, in what type of activity these pieces of knowledge can be utilised, e.g. social, political, economic, technological.¹⁷

The relevant cognitive frames are likely to be different not only by the type of actors, but also by their “subject”. Hence, we need to consider the following types of cognitive frames when analysing a given SI process:

- Cognitive frames of the social group affected by the given problem
 - about themselves
 - about the environment
 - about the (planned, proposed or introduced) social innovation
- Cognitive frames of the environment in which the affected group sits
 - about the affected social group
 - about the (planned, proposed or introduced) social innovation

¹⁶ The interactions among the three social forces are analysed in more detail in sub-section 4.2, when a real-life case is presented.

¹⁷ Learning is also considered in Cajaiba-Santana’s „schematic conceptual model of the social innovation process” under the term of “reflexivity”, but in a less detailed manner. (Cajaiba-Santana, 2014: Fig. 1)

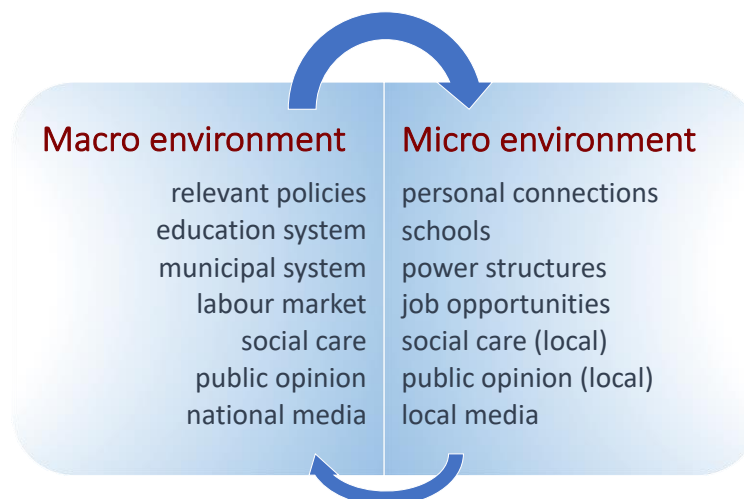
- Cognitive frames of the SI practitioners
 - about the affected social group
 - about the environment in which the affected group sits
 - about themselves.

Institutions, social networks, and cognitive frames of the actors – taking these three factors separately, as well as in their interactions – are decisive in business innovation processes, too. Yet, only the first two of these factors are considered explicitly in the literature on business innovation. Partially, and somewhat indirectly, cognitive frames are also considered, though, when the subjects of analysis are innovation strategies, perception of innovations by actual or potential customers (users), the mindset of policy-makers, or the rationales for policy measures, including regulations.

Two types actors play a distinctive, crucial role: social innovators, that is, the architects and/or leaders of an SI initiative, together with the other SI practitioners act as an Interface and a bridge between a given SI and its micro and macro environment. That is why they are depicted separately in Figure 6, at the ‘periphery’ of the ‘circle’ composed of the other SI actors.

For the sake of simplicity, the major elements of the micro and macro environment of an SI are not detailed in Figure 6, rather, these are listed in Figure 7.

Figure 7: The main elements of the micro and macro environment of a social innovation



Source: own compilation

4 ILLUSTRATIONS: THE RELEVANCE OF THE PROPOSED MODEL

We illustrate the relevance of the proposed multi-channel interactive learning model of social innovation with three cases. The first one is the evolution of the microcredit industry, shaped by interactive learning during its diffusion, adoption, and adaptation. The second one is the Kiútprogram (Way out programme), a Hungarian social microcredit programme aimed at helping marginalised Roma people to become entrepreneurs or self-employed agricultural producers. The third illustration draws on a thorough historical case study on social housing.

4.1 Interactive learning in the microcredit industry

Since 1976, when Muhammad Yunus launched his experiments with small personal loans (Yunus, 1999), microcredit has become a huge and quickly developing industry: in 2018, the

estimated number of microloan holders reached 140 million.¹⁸ Having analysed and assessed the results of a pilot programme, Yunus established the Grameen Bank in 1983, offering small loans to the poor, who had been rejected – or even disregarded – by the commercial banks as their potential customers.

The core of this type of lending activity is a voluntary, self-nominated group of five loan recipients. The standard type of collateral required by traditional commercial banks are replaced by mutual social commitment of the group members. The loan can solely be used to finance income-generating activities, i.e. launching a business. The business idea always comes from the borrower. No preliminary skills development is deemed necessary before starting the business.

Sequential lending and contingent renewal of the loan are the cornerstones of this new business model. The borrowers – even without direct mutual financial liability – act as guarantors for each other, and hence the usual banking collateral is replaced by *social collateral*. “[N]etwork connections between individuals can be used as social collateral to secure informal borrowing (...). The possibility of losing valuable friendships secures informal transactions in the same way that the possibility of losing physical collateral.” (Karlan *et al.*, 2009: 1307–1308)

Inspired by the initial – and somewhat unexpected – success of the Grameen Bank, a significant body of scientific literature has emerged on the subject. To name just two examples, applying the framework of contract theory modelling, Stiglitz (1990) and Varian (1990) demonstrated that peer monitoring can lead to an improvement in borrowers’ welfare. The success has gone beyond the scientific literature, a large number of inspiring stories has been presented also in the mass media about poor people, typically women, who have been able to start a viable business with the help of a microloan, and thus substantially improved the lives of their families.

Enthusiastic supporters considered microcredit as a source of major social transformation, as stressed, for instance in the title of Robinson’s influential book, *The Microfinance Revolution* (Robinson, 2001). This view was so strong that in 2006 the Nobel Peace Prize was awarded jointly to Yunus and the Grameen Bank “for their efforts to create economic and social development from below”.¹⁹ By the 1990s, microfinance had become the most generously funded policy tool for poverty reduction. Huge funds were made available to the microcredit industry by governmental and international development agencies, and other donor organisations in several continents. This change needs to be seen in its context: substantial funds had been re-allocated from other poverty alleviation and development programmes to microlending projects.

The international diffusion of microcredit has generated significant variety, compared to the original model. Different versions have been devised regarding the services provided, the conditions of repayment, the group size, the interest rate, and so on. The respectable repayment results soon led to the recognition that lending to the poor can be profitable, giving rise to large, profit-oriented microcredit financial organisations.

To characterise the evolution of the microcredit industry from the perspective of interactive learning, it is important to identify the main actors, who played an important role in forming and reshaping microlending:

- initial social innovators
- social innovators adopting and adapting the innovation
- business innovators
- governmental actors (deciding on funds and regulation)
- non-profit microlending organisations

¹⁸ http://www.convergences.org/wp-content/uploads/2019/09/Microfinance-Barometer-2019_web-1.pdf

¹⁹ https://www.nobelprize.org/nobel_prizes/peace/laureates/2006/

- profit-oriented microcredit banks and other financial institutions
- international donor and development organisations
- researchers
- media.

The learning interactions between the most important actors, as well as the type of knowledge (co-)created, diffused and exploited by them, are summarised in Table 1.

Table 1: Microcredit industry: Learning among the actors (examples)

Learning from / Learning by	Social innovators	Business innovators	Donor organisations, governments	Researchers
Social innovators	each other's practical experience, adapting the original model	methodological feedback	adaptation to different support and regulatory settings	research results, recommendations
Business innovators	new banking service to the poor	each other's practical experience	adaptation to different regulations	research results, recommendations
Donor organisations, governments	new methods to alleviate poverty	new methods to alleviate poverty	each other's practical experience	research results, recommendations
Researchers	developments in contract theory models, input to econometric analyses	developments in contract theory models, input to econometric analyses	input to comparative analyses	each other's research methods and results

Source: own compilation

Given the global financial and economic crisis of 2008–2009, however, many microlending organisations have collapsed. The first large microfinance meltdown had occurred already in 1999, in Bolivia, but during the global crisis 10 years later, a series of ‘subprime-style’ meltdowns occurred in several countries (Bateman, 2010; Bateman and Chang, 2012; Ghosh, 2013). These failures have sparked a lively debate on the poverty alleviating effects of microcredit. Randomised Control Trial evaluations have shown a consistent pattern of modestly positive, but not transformative poverty reduction effect (Angelucci *et al.*, 2015; Attanasio *et al.*, 2015; Augsburg *et al.*, 2015; Banerjee *et al.*, 2015a; Banerjee *et al.*, 2015b; Crépon *et al.*, 2015; Tarozzi *et al.*, 2015).

Given the fact that microfinance activities have absorbed a significant proportion of resources meant for funding development goals, in particular poverty alleviation, both in terms of finances and human capacities, it is a crucial question if these resources could have been utilised better. The conclusion reached by Bateman and Chang (2012: 13) is sobering: “microfinance actually constitutes a powerful institutional and political barrier to sustainable economic and social development, and so also to poverty reduction”.

These results have gradually led to two significant new recognitions, regarding the allocation of development funds and the nature of microlending activities aimed at alleviating poverty. First, donor organisations have partly turned to other poverty reduction tools and methods. Second, the loan itself is insufficient, a complex intervention is needed to tackle poverty. This can be best illustrated by the evolution of Kútprogram in Hungary, described in the next subsection.

4.2 The Kiútprogram

Our second illustrative case is the Kiútprogram (Way out programme), launched in Hungary in 2009 to decrease the level of prejudice and discrimination against the Roma and improve

their living conditions in the most remote, deprived areas of Hungary. The programme understood and introduced microlending as a device to achieve these aims – and not as a profit-seeking business activity.²⁰

In this sub-section first we recall how the root causes of poverty and marginalisation of Roma people are reproduced by the three social forces described in section 3 and how these three social forces interact. It is followed by a short description of interactive learning among the different actors involved in, and shaping, governing, operating, the Kiútprogram.

4.2.1 The reproduction of marginalisation of Roma people

The marginalisation of the Roma – more generally, of poor people – is persistently reproduced in Hungary and other Central and Eastern European countries. The social grid model, originally developed to analyse the operation of markets (Beckert, 2009, 2010), offers a useful analytical guidance to describe these processes. Without stating explicitly, most of our observations concerning the Roma – with the exception of ethnic discrimination – would also apply to the marginalised (poor, unemployed, undereducated) non-Roma. Ethnic discrimination can turn marginalisation into social exclusion.

Interactions between institutions and social networks

Several institutions have strong impacts on social networks of the Roma in Hungary, of which education, labour market and employment policies are considered here briefly.²¹ Segregated schooling prevents the formation of social ties between children coming from different family backgrounds. It creates a severe disadvantage in the long run as relationships among former schoolmates can be an important source of social ties and a lack of diverse relationships can carry through to adulthood. In turn, lack of social connections with non-Roma – following Granovetter (1973), the missing *weak ties* – significantly reduce the chances of finding a job. The loss of jobs due to the dissolution of unviable state-owned companies has had long-lasting effects: once someone is forced out of the labour market, it is becoming increasingly difficult to re-enter it due the loss of former weak ties.

Insufficient school funding in less developed regions, where the Roma tend to live, leads to poor quality of education, causing a further negative long-term repercussion: poorly educated people are excluded from the labour market, thereby confining their social connections to other marginalised people. Furthermore, the lack of appropriate policies to reduce regional inequalities diminishes the chances of establishing social ties between Roma and non-Roma.

A major employment policy tool in Hungary is the massive and astronomically expensive public works programme, aimed at replacing unemployment benefits. The average number of people participating in these schemes reached 230,000 in 2017 – 5% of the economically active population.²² Participants in public works schemes belong to the same social group, that is, to the unemployed; this specific form of employment, therefore, cannot make up for lost work ties. Instead of integrating the unemployed, among them the Roma, into socially diverse networks, they have become clients in a feudal-style system of relations, where the

²⁰ The main objectives, the means used to provide support to marginalised people, the funding sources and the operation of the Kiútprogram in its different phases are described in detail e.g. in Molnár and Havas (2019a), (2019b).

²¹ Other relevant policies include regulations on social care; the self-government system; the housing market, and social housing; launching and setting up businesses; as well as taxation and social contributions policies. By policies we not only mean policy documents, but policy practices as well because implementation is certainly more important from the point of view of impacts than ideas presented in a document. For instance, segregated education is not part of official policy aims – on the contrary – but in practice the Hungarian government encourages segregated education in various ways, e.g. by defending schools following this practice in court cases, with the minister giving a testimony in support of ‘loving’ segregation. See https://budapestbeacon.com/minister-balog-suggests-officially-segregating-roma-schools/?_sf_s=segregation; and <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+E-2014-010881+0+DOC+XML+V0//EN>

²² <http://kozfoglalkoztataskormany.hu/havi-tajekoztatas-a-kozfoglalkoztatassrol> and http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_qlf002.html

mayor and a few other key figures are the patrons.²³ Moreover, the lack of alternative job opportunities turn the long-term unemployed in the same village into rivals competing for the limited number of posts financed by the public works scheme. This is detrimental to the relationships among Roma, further limiting their social ties.

Inter-community bridges as social ties are crucial in tackling marginalisation: when a marginalised group is segregated from non-marginalised communities, it is practically impossible to alleviate their marginalised status (Csermely *et al.* 2014). The policies described above trigger and maintain mechanisms leading to weak ties of the marginalised Roma in Hungary.

A vicious circle can be observed. The public works system has created a secondary labour market, insulated from the primary labour market,²⁴ with a different set of ‘rules of the game’. Some of these emerge from hierarchical patron-client networks: the patron has an interest in tying the best workers to the system by creating and applying formal and informal rules to hinder their employment in the primary labour market.

Interactions between institutions and cognitive frames

When analysing marginalisation, it is crucial to distinguish two types of cognitive frames: the cognitive frame of the environment about the marginalised group and the cognitive frame of the marginalised people about themselves.

Regulations on establishing and setting up businesses are much more burdensome in Hungary than in most advanced countries.²⁵ These rules are demanding even for educated people, let alone the marginalised Roma with poor education, who would not even attempt to launch a business on their own. Additionally, the rules of the public works and social welfare systems – reinforced by the aforementioned informal rules of the feudal-type hierarchical systems – reduce Roma’s motivations to search for primary labour market jobs. Rules governing the education system also have important bearings on the Roma’s cognitive frames. The curriculum contains hardly any relevant knowledge for solving everyday problems. Hence disadvantaged students, especially the Roma, have hostile feelings about school. Furthermore, there are no elements in the curriculum to enhance positive self-identification for the Roma; teachers are not trained to use pedagogical methods developed for integrated education. Consequently, hostility is strongest in schools where segregation has started but is not yet complete.

The above institutions governing these three important domains – setting up businesses, welfare and workfare, education – lead to *learned helplessness* (Peterson *et al.* 1993), or even self-hatred in some cases. The feeling of ‘no matter what I do, it will get worse in the end’ has become ingrained among most of the marginalised.

A vicious circle can be detected here, too. As described above, several institutions, including education and regional development policies, together with the regulations on creating businesses, play a decisive role in creating unemployment among the Roma and keeping its level persistently high. This leads to false presumptions regarding the causes of unemployment. Many people think that the Roma are lazy: ‘instead of working hard, like us, they want to live on our money by collecting social benefits’. This cognitive frame underpins major changes in social and employment policies: welfare tools, e.g. social transfers to the poor and unemployment benefits, are increasingly being replaced in Hungary by tax holidays, which by definition are only advantageous for those with a certain level of income, and by a workfare-type public works system. These policy changes, induced by the cognitive frame shared by most non-Roma, cause further institutional changes, creating specific rules for the secondary labour market, which, in turn, reproduce marginalisation.

²³ These strongly hierarchical networks resemble the ones described by Eisenstadt and Roniger (1981).

²⁴ On day 180, after leaving a position financed by a public works scheme, a mere 13% of these people had a job on the primary labour market in 2011–2013 (Cseres-Gergely and Molnár 2015).

²⁵ <http://www.doingbusiness.org>

Interactions between social networks and cognitive frames

The lack of positive connections with other social groups has a negative effect on the attitudes of parents with low educational attainment towards their children's education: they are less likely to support their children learning at home or taking up secondary school education compared to parents in better-off, non-marginalised social groups. Lacking social networks leads to feeling 'unneeded', undermines self-esteem and collective self-respect to a large extent, contributing to the formation of learned helplessness. The lack of individual and collective self-esteem destroys the mutual respect and trust within Roma communities, negatively influencing internal networks. The patron-client relations created by the public works schemes (see above) strengthen the acceptance of – or even the perceived need for – paternalism, further increasing dependency.

The absence of inter-community social ties (friendships, accepting the Roma as 'good neighbours', casual communications among Roma and non-Roma) leads to a lack of knowledge about the Roma; a perfect breeding ground for prejudices among non-Roma. Vice versa, prejudices against the Roma hinder the formation of inter-community ties. Prejudices and racism play a big role in the emergence, expansion, and increasing acceptance of far-right networks.

Having considered the interactions between the three possible 'pairs' of the three major social forces, it should be stressed that this type of analysis can only provide a partial picture. In several important processes leading to the reproduction of marginalisation, the interplay among all three social forces is crucial. For example, the persistently high unemployment rate of the Roma and their permanent exclusion from the labour market can be explained by the interactions between institutions and social networks (see above). This situation, in turn, has created and constantly reinforces prejudices against the Roma: 'the Roma do not want to work' (Bernát *et al.* 2013, 2). This cognitive frame leads to changes in social and employment policies – welfare replaced by workfare – and the emergence of new rules governing the secondary labour market, insulated from the primary one.

4.2.2 Interactive learning among the key actors of the Kiútprogram

The major actors of the Kiútprogram include: private funders and *leaders* of the programme, with a variety of business knowledge and experience; advisors, with social science analytical skills; *fieldworkers*, with capability and social capital building experience; the *clients*, usually with low level of educational attainment, no experience in agricultural production, in many cases impeded by learned helplessness and severe mistrust in the institutions (understood here as 'rules of the game') set by, and organisations run by, the local and central state, as well as the members of the 'majority' society; the potential clients; the political leaders of a given village, where the programme operates. These actors have learnt a lot while the Kiútprogram has been implemented, both by relying on external knowledge sources and – to a significant extent – from each other. A thorough description and analysis of these learning processes would require a separate study, and thus only some important elements are highlighted below.

When setting up the Kiútprogram, the *leaders* broadened their knowledge base by commissioning external experts to analyse: the Grameen model; foreign and other Hungarian attempts to fight poverty; marginalisation dynamics and exclusion processes – both their generation and reproduction – with a special attention to the Roma minority in Hungary. During the implementation, learning by doing has also been decisive. Compared to the original model, major changes have been introduced: the practice of social collateral was abandoned; fieldworkers were given an even more important role and responsibilities than originally envisaged for instance in building intercommunity bridges and reducing prejudice when dealing with administrative matters in various offices; trainings – mainly in the form of on-the-job, practical training – proved to be more important than thought of during the planning phase. The founders have also better understood that a loan plays a double role: besides its 'normal' role to facilitate business activities, it is crucial in fighting learned

helplessness. Further, they have learnt about the behaviour of clients, their immediate environment, the norms and culture in those micro societies, and thus the importance of building trust. Without an adequate level of trust, it is simply not possible to help marginalised people in a ‘sustainable’ way. From a different angle, the leaders of the programme have learnt a great deal from external sources of knowledge, from the fieldworkers, from the clients, as well as from each other.

The *fieldworkers* have also learnt a lot about the behaviour of clients, their immediate environment, the norms and culture in those micro societies, and thus the importance of building trust partly directly from the clients, and partly from each other. They have also learnt from the leaders of the programme, in particular about the relevant foreign models and methods to fight marginalisation, the Hungarian regulations, as well as the behaviour of market actors. Further, fieldworkers have noticed that the high ambition of clients is likely to backfire – e.g. they applied too much pesticides to increase yield – and thus together with the external agricultural experts they amended the content of the on-the-job training.

The *clients* have learnt from the fieldworkers and other experts, who have provided business and technological advice for growing cucumbers, devising a basic business plan, obtaining the necessary permissions, dealing with desk officers in various offices, including branch offices of banks. They have also learnt both from the fieldworkers and the leaders of the programme that it is crucial to meet the obligations set in contracts and that the members of the ‘majority’ society can be trusted.

The Kiútprogram has shown that as in business innovation processes, many different types and pieces of knowledge flow between the actors, including codified knowledge in the form of scientific knowledge, as well as tacit knowledge accumulated through own practice. (Table 2) In other words, both S&T and practical knowledge is crucial for a social innovation. The ‘subject matters’ are also wide ranging, spanning from agricultural production methods through knowledge on financial and market issues to understanding the formal and informal rules, as well as the norms of special micro societies. The actors also learn a lot from each other, as well as from their own experience, while performing their role in implementing the programme – this is learning by doing and interacting in its ‘classic’ sense.

Table 2: Kiútprogram: Learning among the actors (examples)

Learning from \ Learning by	Clients	Fieldworkers	Leaders of the Kiútprogram
Clients	each other’s practical experience, lessons from learning by doing	compliance with regulations, simple financial and business planning, growing cucumbers	trust, the importance of sticking to a contract
Fieldworkers, experts	norms and behaviour of the clients, their immediate social environment, the operation of the programme	each other’s practical experience, lessons from learning by doing	foreign models, methods, regulation in Hungary, business actors’ behaviour
Leaders of the Kiútprogram	norms and behaviour of the clients, their immediate social environment, operation of the programme	norms and behaviour of the clients, their immediate social environment, operation of the programme	each other’s previous knowledge and experience

Source: own compilation

Interactive learning has also occurred between the Kiútprogram and its micro, meso and macro environment, e.g. between the clients, fieldworkers and the mayor in a given village; between the leaders of the Kiútprogram, other social innovators, business people working in the related industries, NGOs, and policy-makers. The local and national media have played

an important role in disseminating some elements of newly produced knowledge in a wider circle, and thus contributing to ease the prejudices against the Roma at least to some extent. (Molnár and Havas, 2019a, 2019b)

To sum up, as in the case of most innovation processes, implementation has been a *trial and error* process: accumulated experience has been analysed continuously and internal rules and methods modified accordingly. Client feedback has been systematically collected and considered. The programme also had to be modified due to changes in external circumstances, especially the regulatory environment. It had to be managed in a flexible way; managers had to constantly learn. Support schemes, however, are usually rather rigid given the strict rules introduced to prevent misuse of public funds; in quite a few cases it is fairly hard to amend a social innovation project, even when necessitated by internal learning and/or changes in the external environment.

4.3 Social housing

Rapid industrialisation had not only altered the sectoral composition of the economy and changed the nature of work in the 19th century, but also caused profound social problems, most notably forcing armies of workers to move to overcrowded, unhealthy lodgings. Simply, cities becoming industrial centres had become quickly overpopulated and the available housing stock could not possibly accommodate masses of people. Poor living conditions also caused severe health problems: infections spread easily and fast among people weakened by malnutrition and often sharing beds not as family members, but as ‘bed lodgers’. These high economic costs had compelled even industrialists to search for a solution. Social housing had been perceived a pressing issue, high on the agenda in many cities. Several models had been devised in an attempt to tackle this societal problem, and none became a widely accepted, ‘standard’ solution. The differences among these models could be observed in the following major features: the type of buildings perceived as an appropriate solution; the corresponding standards for buildings; which social groups could benefit from social housing; who should own and thus incur the maintenance costs of these buildings; how to finance social housing; who should manage these blocks of flats.

This first phase of social housing has been followed by six further ones in Europe, driven by:

- utopian thinking, the rise of philanthropy, and increased industrialisation (mid-nineteenth century to the beginning of WW1)
- municipal commitment (the end of WW1 to the Great Depression in 1929)
- the Great Depression (1929 until WW2)
- mainstreaming social housing (post WW2 until the 1970s)
- Individualisation and social fragmentation (mid-1970s until 2008)
- global financial crisis and migration crisis (2008 onwards).²⁶

Naturally, these further phases could only enrich the diversity observed in the first phase of social housing. Thus, when attempting to illustrate the relevance of the multi-channel interactive learning model of social innovation with the case of social housing, our analysis does not focus on any particular model, it rather draws on stylised facts.

The societal problem to be solved – what is in the centre of our proposed model – is ‘housing poverty’. From a different angle, the main objective of this social innovation is to supply decent, affordable shelter for marginalised citizens.

The core actors, who are affected by, and/or work on tackling, this societal problem include:

- people in need: actual and potential tenants
- municipalities and/or the central state (as solution providers, regulators and/or funders)

²⁶ For a detailed historical case study and analysis on social housing, see Schimpf *et al.* (2019).

- other funders
- more recently, the EU (state aid rules)
- housing associations, co-operatives (in certain models/ countries)
- architects
- activists, NGOs, philosophers (studying moral issues), philanthropes
- business people in several sectors, e.g., building materials, building industry, furniture, household equipment
- community-owned workshops (e.g. carpentry, locksmith, tinsmith, and glass workshops; in certain models/ countries).

Building a large number of flats for social housing – as opposed to building palaces for the aristocrats, villas for well-off business people or just elegant flats for the better-off clients – required many different types of innovations. These innovations, in turn, draw many different types of knowledge, (co-)produced, disseminated and exploited by the above actors during the SI process. The most important types of knowledge and their practical applications (innovations) include:

- better understanding of societal problems, needs, social and economic repercussions
- new ideas of living, functional and healthy buildings and settlements, urban planning
- new regulations, building codes
- new, cheaper, mass-produced building materials, including bricks and so-called pax bricks, new types of glass, iron and concrete as building materials, flooring, tiles, windows, doors, fittings for kitchens, bathrooms and toilets
- new business models for companies producing building materials
- new modes of logistics to ship building materials in large volumes
- new or significantly modified processes and building techniques (e.g. steel casting, iron trellis construction, glass columns), tools, and equipment to build these blocks of flats, as well as the adoption and adaptation of a set of new technologies originally developed for industrial buildings
- new co-operative working methods at the construction sites
- new, more efficient heating technologies
- improved infrastructure (energy, water, roads)
- new organisations for self-help (e.g. guilds founded in Vienna for constructing settlements, apartments, and infrastructure)
- new types of mass-produced furniture, lamps, kitchen ware, carpets, curtains, and so on, to furnish these flats
- setting up new companies to satisfy these new demands
- introducing and following new business models by established companies
- new funding modes. (Havas, 2019)

Table 3: Social housing: Learning among the actors (examples)

Learning from \ Learning by	Regulators, other decision-makers	Architects	Activists, NGOs
Regulators, ...	regulations, models, experience (different cities in the same country, different countries, different periods)	new ideas of living, functional and healthy buildings and settlements, urban planning	needs of tenants, new ideas of living, social values
Architects	regulations (constraints and possibilities), plans, needs of tenants	each other's ideas and experience	needs of tenants, social values, new ideas of living, various models
Activists, NGOs	regulations (constraints and possibilities), plans	new ideas of living, functional and healthy buildings and settlements, urban planning	each other's knowledge and experience, various models and practices, organisational solutions

Source: own compilation, drawing on Schimpf *et al.* (2019)

To sum up, we can witness a virtuous circle of social and business innovations: social housing as a social innovation has co-evolved with a range of technological, organisational, business model, financial, and market innovations – each shaping each other. Social innovators themselves developed some of these innovations, while profit-seeking business actors introduced other ones – hence social and business innovations have co-evolved. From a policy angle, social housing can be understood as a challenge-driven innovation (as opposed to ‘supply-driven’ or ‘science-push’ ones) and, thus, the policies supporting these processes as challenge-driven innovation policies. (Havas, 2019)

5 SUMMARY AND CONCLUSIONS

Having reviewed several definitions of social innovations, we strongly suggest reconsidering the widely used dichotomy of social vs. technological innovation. It is more relevant and fruitful to distinguish between the underlying objectives of a given innovation, that is addressing a societal challenge vs. making profits. Hence, the distinction between social vs. business innovation is the appropriate one.

Moreover, thorough longitudinal case studies of social innovations, e.g. those on social housing and fresh water supply (Schimpf *et al.*, 2019, Schimpf and Ziegler, 2019), clearly indicate that in many cases social innovations can only be successful when supported by various types of business innovations, be they product, process, management, organisation, business model or market innovations. Social innovations, therefore, need to be considered in science, technology, and innovation policy-making processes as well, not only by social innovation policy-makers.

For these reasons we have also proposed a new understanding of social innovation as

- novel solutions or novel combinations of known solutions to tackle societal problems or create new societal opportunities
- an interactive learning process: solutions are devised and introduced by various actors: those who are in need, or can benefit from the new opportunities, “external” SI practitioners, or jointly by these actors
- a co-evolutionary process of
 - social innovation and required or ‘parallel’ (‘supportive’ business innovations
 - various social innovations.

This new understanding of SI would be equally relevant for analysts, practitioners, and policy-makers.

We have also recognised the diversity of actors involved, of the types and sources of knowledge generated, diffused and exploited, as well as of types of interactions among the actors in SI processes. Hence, we have concluded that the multi-channel interactive model of SI is more relevant than the ‘stage’ – or linear – models of SI. We have considered several building blocks of the proposed new model and illustrated the relevance and benefits of using it by characterising three cases through this ‘lens’.

The model can also assist social innovation policy-makers, policy analysts and guide practitioners when devising and implementing social innovations. Most importantly, social innovation – just as business innovation – is a cumulative, path-dependent and interactive process involving different types of actors whose knowledge and accumulated experience are crucial for the successful introduction of new solutions. Implementing – especially diffusing – these new solutions are learning and adjustment processes: accumulating experience of a given SI process – including systematically sought feedbacks from participants – needs to be analysed and reflected upon continuously, most likely leading to modified internal rules and methods. The likely changes in external circumstances, especially the regulatory environment, also require flexibility from SI practitioners.

Social innovation policy-making also needs to be understood as a learning process. The usually rigid support schemes need to be eased to allow for more flexible implementation of SIs without compromising the original, fundamental policy objectives.

Directions for future work include the analysis of further, different types of real-life cases – that is, historical case studies of social innovation, e.g. water supply (Schimpf and Ziegler, 2019), as well as contemporary cases, e.g. consumers’ groups: Maestriperi (2017) – using our proposed definition and model of SI. Then we might need to revise the proposed new definition and model of SI in light of these and other cases and that of an extended literature review. That might also lead a clearer and thus more practical distinction between SI and social enterprise (social entrepreneurship). Finally, it would require a separate study to clarify the relevance of the cognitive frames of various actors when analysing business innovations, especially in their interactions with Institutions, and social networks of the actors.

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