

# The centrality of social-tech entrepreneurship in an inclusive growth agenda

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## Introduction, parameters, and objectives

The outbreak of the COVID-19 pandemic in early 2020, growing social and territorial inequalities, and the acceleration of climate change are only a few of the disruptive events that characterize recent decades. Scholars continue to debate whether these dramatic phenomena should be seen as game-changers that have triggered new socio-economic paths or accelerators of well-established socio-economic trends. Regardless, our societies entered the ‘next normal’, and, as [Sneader and Singhal \(2020\)](#) put it, ‘in this unprecedented new reality, we will witness a dramatic restructuring of the economic and social order in which business and society have traditionally operated’.

Given this common understanding, it is reasonable to expect thorough reflection on which actors, under which conditions, could contribute to exploring viable paths for the ‘next normal’.

This chapter seeks to advance a grounded argument for a general rethinking of social entrepreneurship, its role in the global long-term recovery strategy, and its utility for shaping a new, inclusive EU growth agenda. Alongside this more argumentative effort, the reflections presented will also shed light on some of the most relevant aspects to consider in advancing the proposed rethinking to ensure its comprehensiveness and consistency, and, ultimately, the full deployment of its potential.

Social entrepreneurship is a key part of the social economy. However, defining social entrepreneurship is complicated because the concept is systemic and contested, with indistinct boundaries (Nogales-Muriel & Nyssens, this volume), and the epistemological and ideological perspectives of the authors trying to define it affect the nature of social entrepreneurship. Moreover, social entrepreneurship has a context and location-based identity: the form of a social enterprise depends upon its regulative, welfare, policy, competition, and cultural context ([Defourny & Nyssens, 2017](#)).

Johnson (2000) defines social entrepreneurship ‘as an emerging and innovative approach for dealing with societal needs’ (p. 1), providing a broad characterization that nonetheless emphasizes social entrepreneurship’s intrinsic ‘directionality’ towards solving needs, problems, and challenges. This broad conceptualization is also coherent with the common ‘result-oriented’ approach to the topic in the Anglo-sphere. Meanwhile, Austin et al. (2006) define social entrepreneurship as ‘social value-creating activity that occurs within or across the non-profit, business, or government sectors’ (p. 2), focusing on the socially positive outcomes that are generated by social entrepreneurship rather than on the specific organizational attributes of social enterprises, mainly the specific legal organizational forms that are adopted. Within these results-oriented conceptualizations, several authors have stressed that social entrepreneurship must be accountable for the societal outcomes and impacts that it generates (Rawhouser et al., 2019; Van Rijn et al., 2021), employing impact evaluation methodologies to prove these impacts.

Conversely, numerous scholars have identified social entrepreneurship by not only its intentional and accountable creation of social value but also the adoption of an ‘entrepreneurial approach’ or an ‘entrepreneurial method’ and spirit (Certo & Miller, 2008; Dees, 2007; Peredo & McLean, 2006; Sarasvathy & Venkataraman, 2011; Sinkovics et al., 2014), which concretely distinguishes social enterprises from charity organizations. These scholars stress social entrepreneurship’s orientation towards social value creation and entrepreneurial nature and consider it inherently market-driven. Specifically, Bacq and Jansen (2011, p. 388) define social entrepreneurship as the organizational ‘process of identifying, evaluating and exploiting opportunities aimed at social value creation employing commercial, market-based activities and of the use of a wide range of resources’.

Simultaneously, Achleitner et al. (2013) underscore the risk of market-based contexts excessively diluting the social value creation mission of social entrepreneurship, stressing that the term ‘social entrepreneurship’ should generally refer to ‘untapped’ markets that are inherently linked to wicked problems, precluding or impeding the entry of purely commercial forms of entrepreneurship. Social entrepreneurship organizations can be identified by their capacity to assume an additional degree of risk compared to the risk that is deemed reasonable for an organization that is motivated solely by market returns. In other words, social enterprises operate to satisfy needs and contexts that other commercial market entrepreneurs exclude.

The connections between resolving ‘wicked’ societal problems, generating social value, and the entrepreneurial and market orientation have led scholars to adopt a Schumpeterian perspective on social entrepreneurship (see Chell et al., 2010; Tapsell & Woods, 2010). Swedberg (2006) defines social entrepreneurship as ‘a form of dynamic behaviour in one of the non-economic areas of society’ (p. 33). Social entrepreneurship organizations have been characterized as candidate innovators due to their capacity to organize resources for novel solutions to societal and economic challenges (Chell et al., 2010; Tapsell & Woods, 2010; Ghazinoory et al., 2020).

By organizing scarce resources, social entrepreneurial organizations can innovate frugally (Mishra, 2021), offering economic affordability and low complexity: they provide accessible solutions in contexts where institutional voids persist. Moreover, social entrepreneurship has been recognized as representing an entrepreneurial opportunity locus for inclusive innovation that offers re-distributional effects to include marginalized groups in innovation processes (Tello-Rozas, 2016; George et al., 2012).

This discussion also reveals the description of social entrepreneurship as an entrepreneurial actor that shares, de facto, all of the attributes of responsible innovation (as identified by Stilgoe et al., 2013), an observation also made by Lubberink et al. (2018) and Lubberink et al. (2019). Thereby, responsible innovation builds strongly on the element of good and participatory governance (Voegtlin & Scherer, 2017; see Hueske, Willems, & Hockerts, this volume, on participation in social entrepreneurship). Social entrepreneurship organizations thus create 'socio-ethical value' by engaging stakeholders in their innovative activities and unleashing bottom-up systemic change via innovation.

Ultimately, we see that social entrepreneurship has been defined according to many attributes and characterizations. Although we recognize that each approach is inherently valid, we propose a novel characterization incorporating three main concurrent elements to re-draft the boundaries of what social entrepreneurship can do:

1. **Directionality:** Social entrepreneurship collects entrepreneurial forms that intentionally offer solutions to wicked societal challenges, directing their core business efforts towards services and products to either soften the social costs and consequences of inequalities or overcome structural barriers, thus solving some of the most pressing social issues affecting the population in a given context or worldwide.
2. **Societal accountability:** Social entrepreneurship features a reflexive element. Social entrepreneurship organizations directly engage with their beneficiaries to offer products and services. Through this direct engagement and the development of appropriate systems for measuring social impact, these organizations are held accountable for their social value.
3. **A Schumpeterian-market orientation:** Social entrepreneurial organizations demonstrate a natural market orientation based on their capacity for the innovative recombination of resources in disadvantaged contexts. Through this capacity, social enterprises also introduce market mechanisms into 'untapped' markets in which purely commercial forms of entrepreneurship do not operate. They creatively innovate, permitting them to be framed as socially Schumpeterian innovative actors.

Within our definition, we explore how social entrepreneurship can play a role in the context of greater societal transformations and how social entrepreneurs can use technology in new ways to enable inclusive growth.

## Field convergence and the role of technology

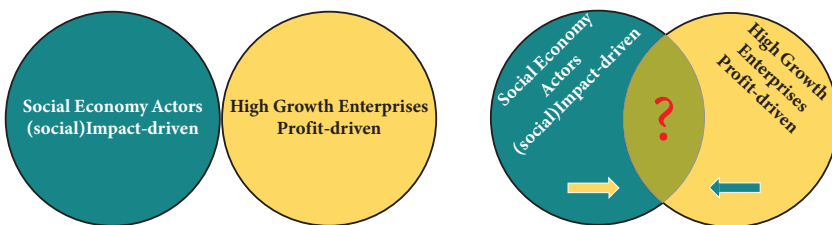
We recognize that social entrepreneurship is going through a deep transformation. This started well before the pandemic crisis under the pressure of different forces, including emerging societal challenges, shifting consumer preferences towards sustainability-oriented products and services, political advocacy in favour of more inclusive societies, the crisis of traditional welfare systems, and new technological opportunities (Desa & Kotha, 2006a; Ismail et al., 2012; Desa & Basu, 2013; Arena et al., 2018, Scilitoe et al., 2020). Altogether, these pressures are pushing social entrepreneurship towards an evolution that will involve both novel and existing entrepreneurial forms.

Consumer attention to sustainability is encouraging substantial mainstream entrepreneurship to develop advanced corporate social responsibility practices and to accelerate the creation of ‘a fourth sector’ (Friis, 2009; Rubio-Mozos et al., 2019) rather than the more traditional and established third sector. This fourth sector seeks to encompass the social economy and social entrepreneurship by merging market and profit objectives to respond to environmental and societal needs.

Considering the broader picture, a general convergence of purely commercial entities, on one hand, and purpose-driven actors such as social enterprises, on the other, must be acknowledged.

For instance, some high-growth (innovative) enterprises show increasing attention to social and environmental challenges, sometimes integrating advanced mechanisms of social responsibility in their core functioning, undertaking elaborate social accounting exercises, and even stretching their business models to maximize intentional positive externalities (Markman et al., 2019; Rajesh et al., 2022). Simultaneously, as mentioned above, some social enterprises are evolving into very interesting organizational hybrids, intentionally pursuing profit and measurable social impact objectives (Figure 12.1) and often characterized by a consistent degree of knowledge or technology intensity and a tendency to drift from labour-intensive to capital-intensive entrepreneurial models (Calderini et al., 2021; Arena et al., 2018).

The underlying awareness driving this convergence is that the complexity and the interrelated character of societal challenges require collective effort from private and public actors to be solved. Neither the market nor the state can respond to them



**Figure 12.1** Convergence between evolving impact-driven social economy actors and high-growth profit-driven enterprises

alone. This recalls the development of novel and experimental partnerships involving social enterprises and civil society more directly (Mazzucato, 2021; Venturi & Zandonai, 2022). Moreover, the recent acceleration in organizations' digitalization processes (Meige & Schmitt, 2015) calls into question the capacity of the entire social economy to 'entrepreneurially' exploit this technological availability. It specifically addresses social enterprises' capacity to combine technologies into unique social business models that offer novel responses to societal challenges (Scilitoe et al., 2020). Such technological evolution is impossible without the availability of sufficient capital to enable enterprises to adopt technological innovations within their social business models.

This is why the evolution in social entrepreneurship entails hybridizing missions and objectives (Battilana & Lee, 2014; Doherty et al., 2014), managerial structure, financialization, and growing technological intensity.

While this fascinating convergence begs further exploration, the latter aspect is within the remit of this chapter, as it is likely to represent a breakthrough in the future evolution of social innovation and entrepreneurship.

In turn, novel technological and knowledge intensity will probably play key roles in the other transforming areas of social business models, that is, in the evolution of managerial practices and stronger financialization.

Nowadays, the commoditization of technologies, particularly in the digital and software domain, makes a difference. With the expression 'commoditization of technology' (Meige & Schmitt, 2015; Forbes & Schaefer, 2017) we refer to the decreasing adoption costs and increasing ease of use and user-friendliness that characterize the rapid recent development in low- and medium-tech applications that might be relevant for social innovation and social entrepreneurship, such as do-it-yourself manufactures that can be easily reproduced and 'commodified' by 3D printers (Petersen et al., 2017).

In this chapter, we discuss four reasons why, in light of recent technological developments, the relationship between social entrepreneurship and technology should be revisited and why we need a new generation of technology and innovation studies dedicated to social entrepreneurial organizations, reconsidering appropriately designed technology transfer practices and policies (see Table 12.1).

By discussing these four reasons, we aim to provide a systemic understanding of the technological development of social entrepreneurship. 'Systemic' refers to a lens

**Table 12.1** The four systemic reasons for the centrality of socialtech entrepreneurship

|                 |  |
|-----------------|--|
| <b>Reason 1</b> | Technology adoption and the capacity for increased resilience and responsiveness to grand challenges             |
| <b>Reason 2</b> | The endogenous transformation and hybridization enabled by technological intensiveness in social business models |
| <b>Reason 3</b> | The capacity to improve the societal legitimacy of innovation and technology, mitigating unintended consequences |
| <b>Reason 4</b> | The relevance of social tech entrepreneurship within a concrete inclusive growth policy agenda                   |

enabling us to analyse the evolution in organizational and social entrepreneurial models in constant relation to much broader socio-economic and policy scenario transformations. We contend that a systemic, in-depth view of the technological evolution in social entrepreneurship may reveal potential co-evolutions (Geels, 2014) in other institutions, organizations, policies, and growth models that are enabled by the nature of the transformation of social entrepreneurship.

## **Reason 1: Technology adoption in social entrepreneurship, resilience, and responses to grand challenges**

The first systemic reason for the centrality of social-tech entrepreneurship is related to the adaptation of social entrepreneurship models and their technological development to the complexity of contemporary societal challenges. The pandemic has revealed the huge potential of different forms of social entrepreneurship to address social problems (La Piana, 2020), as well as some fragilities and limitations in delivering robust, resilient, large-scale solutions.<sup>1</sup>

We can claim that during the pandemic, social enterprises have experienced two divergent, extreme situations: they have been directly exposed to the crisis on the frontlines, experiencing high costs, responsibilities, and risks. They have, in parallel, been pushed to react and innovate to meet the emergency. Parts of the social economy appear to have been more resilient to the crisis than other organizations (Chaves-Avila & Soler, this volume), while other parts were paralysed and unable to perform normal activities and deliver their usual services<sup>2</sup> due to the nature of their activities. Both situations have generated unique consequences. Many social enterprises have seen their social business models, operations, financial stability, and social innovative models severely compromised and, sometimes, shattered.

It is, therefore, legitimate to ask whether the earlier adoption of digital technologies coupled with a more structured financial situation would have offered more resilience and, specifically, permitted social entrepreneurs to deliver more scalable, robust, structural solutions to dramatic emerging problems.

### **Technology as a response to crises**

In the depths of the COVID-19 crisis, many social enterprises' adoption of digital platforms enabled coupling creativity with greater and faster responsiveness to emerging needs (La Piana, 2020). Moreover, digital platforms allowed the

<sup>1</sup> See also: 'Social entrepreneurs are first responders to the COVID-19 crisis. This is why they need support', World Economic Forum, <https://www.weforum.org/agenda/2020/09/social-entrepreneurs-are-first-responders-to-the-covid-19-crisis/>

<sup>2</sup> On the Italian case, see, among others: 'Terzo settore a rischio, aiutateci ad aiutare', *Quotidiano Sanità*, [www.quotidianosanita.it](http://www.quotidianosanita.it); 'Coronavirus—Aggiornamenti e disposizioni per il Terzo Settore', *Forum Terzo Settore*.

aggregation of the supply and demand for services and goods and unleashed novel, resilient forms of ‘platform-based mutualism’ and ‘cooperative social welfare’ (Miedes Ugarte et al., 2020). This was, for instance, true for welfare platforms activated by the Italian co-operative group CGM<sup>3</sup> (Martinelli et al., 2019). Coop-Circuits is another relevant case: it is a French booking and order management ‘co-operative platform’ developed under a free licence that allows the purchase and sale of artisanal, local, organic, and ethical products through short circuits. While traditional delivery players were quickly saturated during COVID-19, CoopCircuits enabled the rapid bottom-up emergence of local food distribution points on short circuits. With this tool, producers and networks of neighbours could set up tailor-made short-circuit supply solutions within specific territories.

Moreover, as Gagliardi et al. (2020) highlighted, the application of distributed ledger technologies, such as blockchain technologies, had the potential to improve the governance and accountability of social enterprises during the pandemic by facilitating participation and making the consultation of members and beneficiaries more secure and traceable.

The COVID-19 crisis emphasized the relevance of telemedicine and e-care systems. Many social enterprises are involved in healthcare and social assistance (Gagliardi et al., 2020). These enterprises typically operate in proximity to people in need, but they are increasingly asked to operate in ‘decentralized areas’ or remotely as well; this encompasses the rediscovered ‘proximity potential’ of the adoption of novel technologies in care-oriented social business models (Blasioli & Hassini, 2021).

Overall, as Venturi and Zandonai (2022) outlined, many original experiences emerged during the pandemic in the social entrepreneurial field. In addition to the proliferation of platforms, there were the novel interactions between fab-labs and social service providers, such as the ISINNOVA case of 3D-printed life-saving valves in Milan (Corsini et al., 2021) or novel partnerships between app developers and social enterprises such as the ‘Del+Del’ app developed by the Italian TICE co-operative to fight the isolation of elderly citizens.<sup>4</sup>

Together, these trends reveal the systemic potential of interaction between social entrepreneurship and patterns of technological development. This potential is not limited to the pandemic context but accelerates an existing trend in responsiveness to societal challenges.

## Longer-term consequences

The value of merging technology with social entrepreneurial action is not restricted to the crisis context. As an example of the growth of impact-oriented, platform-based social enterprises, the Italian enterprise HumusJob has utility beyond the COVID-19

<sup>3</sup> See: ‘Nasce biellawelfare: la prima piattaforma per i servizi a domicilio ai tempi del Coronavirus’, Gruppo Cooperativo CGM.

<sup>4</sup> See: ‘Coop. Tice: dalla Fondazione Tim 100mila euro una app contro la solitudine degli anziani’, [www.legacoopemiliaovest.it](http://www.legacoopemiliaovest.it).

crisis. HumusJob is a successful start-up and digital platform that supports the agricultural industry in disadvantaged areas of Italy, enabling the hiring of labourers on a fair contractual basis via platform technology and a certification mechanism to address the illegal recruitment of migrants.

Thus, we recognize that a stronger, technology-intensive form of social entrepreneurship, possibly a different entrepreneurial genre altogether, is essential not only for prompt responses to urgent, demanding societal problems but more generally to represent the kind of organization that is best suited to lead in the creation of a new model of growth entailed by the complexity and persistence of contemporary societal challenges.

However, today, we have a limited understanding of the nature of the technology adoption process in social enterprises and social economy organizations more generally: we understand technology transfer practices and processes in this field even less (Vila Seoane et al., 2013; Gerli et al., 2020).

This calls for further studies about the intertwining of social entrepreneurship's identity and resources and its capacity to adopt certain emerging and innovative technologies. This capacity is likely a function of the specific knowledge that social enterprises possess and the complementarity of novel technologies with that prior embedded knowledge (Cattani, 2005; Nooteboom et al., 2007).

Technology adoption by social entrepreneurship organizations is not solely a matter of organizational capabilities, resources, and knowledge, but also one of interorganizational relationships and ecosystems. As Gerli et al. (2021) claimed, the specific nature of social entrepreneurship is suited to drive an overall rethinking of the ecosystemic models aimed at the technological development of every kind of entrepreneurship.

The relevance of cognitive rather than physical proximity in enabling the technological advancement of social entrepreneurship and the open and demand-oriented nature of the innovations that social enterprises pursue (Gerli et al., 2021; Venturi & Zandonai, 2022) calls for an overall evolution of current models of innovation ecosystems towards more open, user-driven configurations.

For example, clusters—a widespread, ecosystemic innovation policy and conceptual tool (European Commission, 2021)—may be encouraged to evolve towards living lab configurations by applying the lessons of social entrepreneurship. New living lab models are more open, flexible, and user-oriented, as well as co-creative, in nature than traditional cluster models (Carros et al., 2020). Clusters may be reimaged as tools to aggregate localized and place-based societal needs rather than concentrated supportive services.

The open, societal need-oriented nature of social entrepreneurship can enable an evolution in the conceptualization of technology and innovation diffusion models as well (Sahin, 2006), evolving from a linear market-oriented approach towards a generalization paradigm (Wigboldus et al., 2016). The generalization perspective entails a greater and more multifaceted view of the routes and combinations of market and non-market dynamics leading to the societal diffusion of innovations, which can be technical, organizational, or societal. Two experimental examples that fit into such



a perspective are the Get-It-Twice and ‘Polisocial’ projects launched by the largest Italian technical university, Politecnico di Milano, to diffuse and transfer research, knowledge, and technologies through active citizenship, civil society organizations, and territorial networks of social enterprises.<sup>5</sup> Such projects reveal that novel models of technology and innovation diffusion embed both institutionalized technology transfer processes and more informal, participatory, and citizenship-oriented models of innovation diffusion from universities and research centres to society (Goranson, 2017). These models ask technology and knowledge transfer organizations to develop new capabilities to fulfil the novel roles that are open to social-minded actors and present novel experimental research agendas.

## **Reason 2: The endogenous transformation enabled by technology and hybridity**

The second reason for social-tech centrality is related to technology’s role as an agent of endogenous transformation in social entrepreneurial models.

Technology and its adoption might change the model of social entrepreneurship and engender an evolution of social entrepreneurial business models towards more radically hybrid archetypes that do not limit profit production *ex ante* but do not represent profit as the organization’s final objective. Social-tech ventures are a good example of this business model evolution. They are start-ups that use technology to develop new products and services that fulfil a social aim (Desa & Kotha, 2006a; Kamariah et al., 2012), for example, by offering loans and financial advice to the ‘unbankables’ through big data analysis and monitoring or by using a platform to make donors’ and investors’ payments conditional on verified societal impacts via blockchain-based infrastructure. However, their distinctive feature, compared to more mainstream high-tech start-ups, is that these ventures specifically aim to ‘develop and deploy technology driven solutions to address social needs in a financially sustainable manner’ (Desa & Kotha, 2006b, p. 159).

## **New tech-based business and governance models**

A clear example of this evolution may refer to social enterprises that used to involve people with autism in standardized and often low-skilled recreational and professionalization activities in the form of social co-operatives or charitable organizations. These enterprises may evolve towards a model where, via appropriate programming software, people with autism can become involved in technology and knowledge-intensive activities. These activities can also be less standardized and more personalized, remunerative, and focused on the specific character of each person’s autism. This wordy description suits the case of the social business Specialisterne,

<sup>5</sup> See <https://www.som.polimi.it/get-it-twice-la-call-per-innovare-i-sistemi-di-welfare-e-sanita-lombardi/> and <https://www.yukionlus.org/project/gift-politecnico-milano/?lang=en>, respectively.

an organization that is currently active in twenty-three countries and focuses on the high-skilled job placement and training of people on the autism spectrum.

Overall, two elements should be highlighted to underline the centrality of technology in shaping this fundamental transformation from low- and no-tech social entrepreneurship to social-tech ventures. The first is the shift from labour intensity to higher capital intensity that is the obvious consequence of technology adoption. The shift towards capital-intensive models motivates an emergent appetite for capital and financial resources and opens up relevant managerial and governance issues (Arena et al., 2018). Technology adoption creates novel managerial issues, requiring novel resources and capabilities that range from human resources to the complexity of intellectual property management.

Additionally, at the governance level, the technology-induced appetite for capital will bring in new investors with expectations of financial returns alongside social impact objectives. The appearance of this type of investor and stakeholder is likely to perturb the equilibrium between social and economic objectives and introduces new potential sources of mission drift. We therefore argue that the adoption of technology exposes social enterprises to higher risks of mission drift that are worthy of empirical investigation.

## Technology as a means for scaling

Meanwhile, a second crucial transformation related to technology adoption is linked to the scaling-up potential of technology and its relationship with social business model sustainability.

Social enterprises typically have thin economic sustainability margins, when they exist at all (Santos et al., 2015). Technology usually enables scaling up and may improve organizations' operational efficiency. Larger volumes of activity and the related scale economies, together with efficiency gains, may reduce unit costs (Scilitoe et al., 2020).

Although we can debate whether the efficiency gains that technology enables should be entirely internalized by social enterprises and not shared with their beneficiaries, when the thin sustainability margins that characterize social enterprises are multiplied by larger volumes, a more robust and economically sustainable social business model can result.

Thus, technology adoption may enable the scaling of societal impacts and improve the financial sustainability of social business models.

In the field of health and social services, technology can enable greater personalization of interventions without decoupling from scaling those interventions (which are often pursued by social co-operatives). For example, the adoption of Carebidet technology, an automatic toileting system, offers dignity and independence for people with reduced mobility. At the same time, it increases the customizability, diversification, and 'in-depth' scaling of caregiving in relation to the patient. The automatic toilet system allows caregivers to concentrate their working time on the more relational and non-standardized aspects of care work. Also, the adoption of

such technology pushes caregivers' social co-operatives towards stronger capital intensiveness to permit technological investment.

The intertwining of technology, e-services, and the social economy can also inspire more technology-intensive 'community-centred' models of care. As discussed, within these models, technology does not substitute for the relational and participatory components characterizing the services offered by the social economy. Rather, technology replaces the most replicable parts of social and care work, enabling scaling alongside more personalized human-based work.

## Technology drives hybridization

Thus, by combining the new tech-induced need for capital and tech-enabled economic sustainability and investment readiness, the appetite for and appeal of financial capital are simultaneously created, as shown in the exponential growth of specialized investors operating in the impact-finance segment (GIIN, 2020EVPA, 2020).

This latter consideration suggests that new social tech entrepreneurship can play a crucial role in a hybrid, impact-oriented value chain, bridging the demand for innovative solutions to social problems with impact investors who are willing to provide specialized financial resources to social entrepreneurs that can deliver innovative solutions to such problems.

The academic debate has not yet theorized how social and economic value creation are intertwined and coupled with the more intensive use of technologies in social entrepreneurial organizations that share specific values and identities (Toschi & Grassi, 2021). The literature has identified the hybrid organizing and twofold social-commercial purpose of social entrepreneurs as sources of managerial tensions, ethical challenges, and potential mission drift (Battilana & Dorado, 2010; Smith et al., 2013; André & Pache, 2016). This tendency may be reinforced by the 'appetite of capital' characterizing more technology-intensive models (Arenas et al., 2018). Conversely, another stance has recently emerged arguing that the managerial challenges raised by social enterprises' hybrid nature are not a problem but rather can be turned into opportunities to innovate and change (Mongelli, Rullani, Ramus, & Rimal, 2019; Shepherd, Williams, & Zhao, 2019). This may occur even more thanks to the availability of innovative technologies because technologies can catalyse the mobilized financial capital towards opportunities for innovating the responses to societal needs by preserving the social impact-oriented intentionality of impact investment (Bengo et al., 2021).

A relevant further line of research concerns investigating the relationship between the different levels of hybridity characterizing different social entrepreneurial models and their interplay with the adoption of technological innovations. We wonder if and how technologies represent a key factor in shaping the synergy between social and economic value creation in hybrids.

Finally, the tech-enabled scalability potential of social enterprises and their new, structurally systemic role leads us to our third systemic argument.

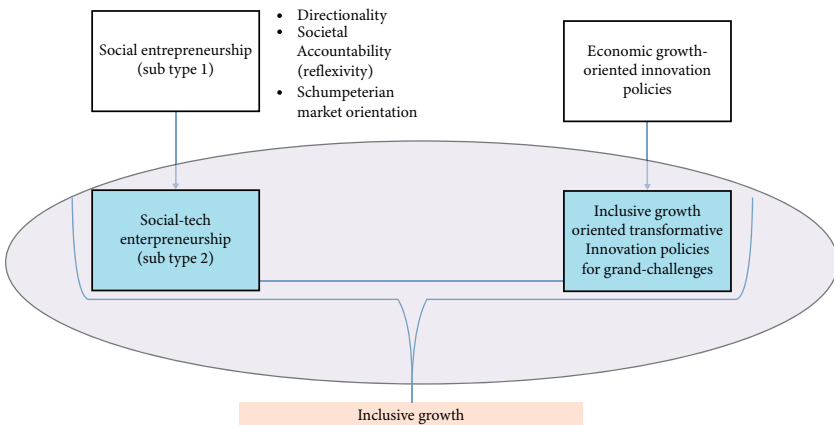
### Reason 3: Social tech entrepreneurship, transformations in innovation policies, and the societal legitimacy of innovation

The third reason for social-tech centrality is related to the potential role of social entrepreneurship not only to provide better solutions to social problems but also to mitigate the unintended effects of patterns of technological innovation and maximize their positive effects on society and individuals.

Recognizing the systemic potential of social-tech entrepreneurship in the context of the evolution of mission-oriented innovation policies towards the broader approach of transformative innovation for grand challenges reveals novel perspectives and research agendas.

Figure 12.2 synthetically describes the theorized coevolutionary dynamic between the technological evolution of social entrepreneurship organizations and the transformative characterization of innovation policies towards a holistic, grand challenges-oriented perspective. This perspective is obtained by addressing technologically evolving social enterprises with appropriate innovation policies. The coevolutionary perspective explains the shift from a traditional innovation-fuelled economic growth model to a transformative innovation-fuelled inclusive growth model.

Transformative innovation policies seek to inspire systemic change that is suitable to respond to grand societal and environmental challenges by leveraging a holistic conceptualization of innovative activities (Borràs & Edquist, 2019; Schot & Steinmueller, 2018; Diercks et al., 2019). They blend societal, technological, and market-oriented aspects with proactive orientations towards solving socio-environmental problems (Fagerberg, 2018; Diercks et al., 2019). In addition, these policies display inclusiveness towards demand-side actors (Schot & Steinmueller, 2018; Diercks et al., 2019; Edler & Boon, 2018) and a



**Figure 12.2** The theorized coevolutionary dynamic between social entrepreneurship and innovation policies

component of experimentation and reflexivity towards societal impacts (Schot & Steinmueller, 2016).

Technologically evolving social enterprises may represent appropriate addressee actors for this new generation of innovation policies as they share the main socio-technical attributes that are required by transformative innovation (Calderini et al., 2023). As explained in this chapter social enterprises can have specific marginalized groups as beneficiaries or consumers of innovation and involve marginalized groups and stakeholders in their operations and governance (Bock, 2016; Pinch & Sunley, 2016). Moreover, social enterprises can be geographically inclusive, responding to the social needs of communities and reaching abandoned and marginalized territories (Steiner & Teasdale, 2019). This broad characterization of social and geographic inclusiveness aligns with the trans-local nature of transformative innovations (Loorbach et al., 2020) with place-based origins, scaling geographically and societally (Calderini et al., 2023).

Furthermore, social enterprises are increasingly reflexive organizations that broadly adopt tools for societal and environmental accountability to their stakeholders (Rawhouser et al., 2019). Lastly, transformative social enterprises can build internal and external networks testifying to their capacity to systemically experiment with new collaborations and generate local system changes (Choi, 2015; Choi & Chang, 2019).

During the ongoing technological development of social enterprises (Arena et al., 2018; Monroe-White & Zook, 2018; Turker & Ozmen, 2021), these elements can constitute entrepreneurial building blocks for spreading the knowledge and transferring the benefit of innovations to a vast public, improving the societal legitimacy of science, technology, and innovation in this way.

A good example of the transformative and ‘mitigating’ potential characterization of social tech entrepreneurship is the French co-operative Atelier Paysan. The Atelier is based on the idea “of granting technical and technological sovereignty to farmers working in marginalized areas of the country” (Calderini et al., 2023, p. 4). The social cooperative provides farmers with an open-source resource platform for self-developing “appropriate” farming tools. Appropriate technologies are robust, cost-effective machinery that requires minimal maintenance, rendering it manageable by the specific communities for which it is intended. These technologies reintegrate elements and methodologies from the past into novel contexts, effectively merging conventional “place-based” expertise with novel technological solutions, thereby enhancing appropriateness (Franco et al., 2020).

## **Reason 4: Social-tech entrepreneurship and inclusive growth**

The previous discussion leads us to the fourth reason for social-tech centrality, which is closely linked to the third. It is focused on the potential of social-tech entrepreneurship to counteract inequalities from a Rawlsian perspective and, overall, deploy a more inclusive model of growth in the context of contemporary economies.

Much expectation has been placed over the past twenty years on the ‘knowledge economy’ (Godin, 2006), an economic paradigm that is characterized by the centrality of intangibles, knowledge, and technology, which is directly based on the production, distribution, and use of knowledge and information. Typically, it is characterized by the increasing role of creativity, imagination, and persistent innovation in the value creation process (OECD, 1996). Generally, the knowledge economy has been assumed to be able to spur growth and prosperity equitably and inclusively. Consequently, the prevailing innovation policy approach was moulded isomorphically around myths and legends about Silicon Valley (Irwin et al., 2021; Breznitz, 2021), with limited consideration of the idiosyncratic and specific features and enabling factors that would have made such policy innovations successful in Europe.

As an example of this isomorphic trend, recall the science park and incubator hype; the obsession with venture capital and its support on the supply side instead of concentrating on more relevant demand-side, capacity-building issues; and the obstinate faith in science-dominant models of innovation (Breznitz, 2021). We might add the overestimation of the role of universities in technology transfer, the unreasonable reduction of tech transfer to a mere collection of spin-offs and intellectual property rights management issues, and the inexplicable denial of the role and potential of demand-side policies and their consequent under-exploitation (Corsi et al., 2020; Breznitz, 2021; Flanagan et al., 2022).

In this isomorphic policy context, ever more empirical evidence (Compagnucci & Cusinato, 2014; Rodriguez-Pose, 2018) reveals that the ‘knowledge economy’ in Europe has fallen short of expectations, debatably in terms of absolute growth performance but certainly in terms of the equitable distribution of opportunities. A high density of knowledge and wealth has accumulated in select areas and segments of society. Most geographic areas, communities, and social segments have been left behind or excluded from the knowledge economy. This has resulted in significant discontent—that is, incidentally, one of the sources of the wave of populism, anger, and anti-politics that we are witnessing (Rodriguez-Pose, 2018). This latter is not merely a crucial equity and social justice issue but may impose a glass ceiling on Europe’s growth prospects.

The knowledge-based economy model is leading to the creation of narrow ‘insular vanguards’ (Unger, 2019) that confine and restrict the effects of the knowledge economy.

Therefore, inaugurating a new generation not only of directional and transformative but also of place-based, inclusive, innovation-driven development policies that are driven by a more inclusive idea of growth and enable the shift from ‘insular’ to ‘inclusive’ vanguards is crucial.

Finally, in the broad context of the insularity of vanguards, another important element should be considered when outlining future options for innovation-driven growth.

Globally, although research efforts and expenditures are generally increasing, research productivity is falling. This means that ideas are becoming scarcer, as Gutiérrez and Philippon (2019) and Bloom et al. (2020) suggested, and new efficiency

issues are emerging in the exploitation of knowledge and its translation into innovation opportunities.

Even this latter observation questions the sustainability of the science-push innovation model and should lead us to reconsider innovation models that have been developed in contexts and by actors that typically operate in conditions of resource scarcity and coherently address complex trade-offs related to sustainability issues with frugal innovation paradigms (George, 2019). These ‘frugal capacities’ precisely characterize many social enterprises’ approaches to innovation, as already discussed (Tapsell & Woods, 2010; Mishra, 2021).

## Conclusions: Drafting a novel policy agenda for European social entrepreneurship

In summary, we believe that the classical narrative of the venture capital-fuelled, science-intensive, technology-push model of innovation-driven growth must be, if not revisited, at least paralleled by an equally important inclusive innovation agenda to jointly pursue growth and counteract inequalities and environmental crises.

At the very centre of such an inclusive innovation agenda, we believe a new entrepreneurial genre should be included within policies for growth.

This genre merges technological innovation into a model characterized by prioritizing societal needs, inclusiveness, societal accountability, and the capacity to act in untapped markets that purely commercial entrepreneurship has not entered.

This entrepreneurial genre is social-tech entrepreneurship, which is a model of enterprise that belongs to the social economy but has major appeal and influence on mainstream for-profit corporate models. We argue that this new entrepreneurial genre, coupled with appropriate financial tools and leveraging opportunities in the markets for social needs (Bonoli, 2005), may offer Europe a tremendous opportunity to bridge research and innovation policies, social cohesion policies, and financial policies.

This strong political dimension cannot be kept separate but should form part of a unique, integrated political agenda. It is a very attractive policy approach that might allow Europe to inaugurate a dual policy portfolio in which growth and solving societal challenges and inequalities are addressed through the same instruments in an integrated agenda. It could be seen as the way to enact a ‘Twin Transition’:<sup>6</sup> a social and digital transformation.

In light of this prospect, having discussed<sup>7</sup> the four crucial reasons to systemically consider the exchange between technological opportunities and social entrepreneurship, we turn to draw some more political conclusions.

<sup>6</sup> See: ‘The twin green & digital transition: How sustainable digital technologies could enable a carbon-neutral EU by 2050’, [www.europa.eu](http://www.europa.eu).

<sup>7</sup> See: [https://ec.europa.eu/environment/ecoap/about-eco-innovation/policies-matters/green-and-digital-twin-transition-also-spurs-inclusive-eco\\_en](https://ec.europa.eu/environment/ecoap/about-eco-innovation/policies-matters/green-and-digital-twin-transition-also-spurs-inclusive-eco_en)

## Moving from an old model ...

The relationship between research, innovation, and growth has traditionally been a cornerstone of economic development policies, encompassing traditional, direct fiscal incentives and subsidies, support for venture capital in direct and indirect forms, and bridging institutions, such as science parks and incubators. The implicit assumption of these policy mixes is that the stock of knowledge is large and valuable and that there are active, lively, knowledge-intensive industrial sectors that are willing and able to exploit this knowledge for innovative performance.

Unfortunately, this hypothesis has sometimes been revealed as fragile wishful thinking, especially when applied to place-based innovation policies, as discussed in previous sections.

There is an urgent need for radically new models of innovation-driven growth that are more compatible with the actual consistency, heterogeneity, and geography of small and medium-sized enterprises (SMEs) in Europe.

This short chapter suggests that the new generation of social-tech entrepreneurship and the cross-fertilization of social innovation models with technological opportunities is a valuable opportunity to develop new approaches and instruments that will drive the evolution of social, industrial, and innovation policy-making. These are not substitutes but complements to novel transformative and grand challenge-oriented policy mixes.

## ... to a new model

The underlying policy idea is that the value of research and innovation has been traditionally conveyed to society via the industrial system, which has exploited knowledge, translated it into economic value and growth, and, eventually, conveyed it back to society. If industry (or a knowledge-intensive industry) is no longer present in certain areas and segments of Europe, the alternative is to consider social-tech entrepreneurship as a way to convey the untapped value of knowledge directly to society, in the absence of a consistent traditional industrial option leveraging commercial entrepreneurship.

This would imply including social enterprises within the bounds of industrial and innovation policies, as the European Commission has started to do by identifying the 'social and proximity' economy as one of the fourteen industrial ecosystems in the 'New Industrial Strategy for Europe'.<sup>8</sup>

Social-tech enterprises are still very few. For example, the percentage of social innovative start-ups among technological innovative start-ups in the Italian context was about 2.2 per cent in 2020.<sup>9</sup>

Nevertheless, the base of social enterprises is very large in Europe. According to European Commission data, ever more organizations can be regarded as

<sup>8</sup> See: [https://ec.europa.eu/growth/sectors/proximity-and-social-economy\\_it](https://ec.europa.eu/growth/sectors/proximity-and-social-economy_it)

<sup>9</sup> See: Startup e PMI innovative ([registroimprese.it](http://registroimprese.it))



social enterprises: recent statistics report more than two million enterprises that are active in the social economy (about 10 per cent of European enterprises; [European Commission, 2020](#)).<sup>10</sup> Some of these are well equipped in terms of managerial structure and have in-depth knowledge of their markets: they typically serve markets that are enjoying encouraging growth prospects and can respond to people's needs, allowing them to decisively contribute to a genuinely inclusive model of growth. Moreover, these organizations often display a high demand for technological innovation if it is appropriately inducted through timely policy-making.

For example, in the Italian context, research conducted by Deloitte, TechSoup, and Fondazione Italia Sociale in 2021<sup>11</sup> revealed that 96 per cent of social enterprises perceived the necessity of innovating their services and products (mainly through incremental approaches), with technological support. Simultaneously, 61 per cent of organizations faced resistance in enacting technological innovation processes for lack of appropriate skills and financial resources.

Thus, the evolution and cross-fertilization with technological opportunities of even a fraction of this base, turning these organizations from labour-intensive to reskilled tech-intensive enterprises, could result in intriguing numbers that could affect European growth rates.

To specify a very simple, clear policy objective, if we could transform 1 per cent of the estimated two million social enterprises in Europe into social-tech enterprises every year, 20,000 new organizations that would not be, technically speaking, brand new—but could easily be considered new high-tech start-ups—would result. This is not only an interesting number but also a fascinating option in terms of inclusive growth.

The vision, therefore, is of the network of social enterprises in Europe as a diffused and distributed incubator and accelerator. Shifting from a model of physical incubators and science parks as sources of innovative entrepreneurship to a model that leverages social innovation and social entrepreneurship networks would mean shifting from a polarized model to a distributed, inclusive model of innovation and growth.

What, then, should be done to seize this opportunity and inaugurate a new season of policies supporting tech-intensive entrepreneurship's potential by leveraging the hidden virtues of social entrepreneurs?

## Required policy measures

We suggest that there are at least five areas of intervention that are worthy of exploration.

### (1) Rethinking technology transfer and universities' third mission

<sup>10</sup> See: Social economy in the EU | Internal Market, Industry, Entrepreneurship and SMEs (europa.eu)

<sup>11</sup> <https://www2.deloitte.com/it/it/pages/private/articles/la-domanda-di-innovazione-del-terzo-settore-deloitte-italy—d.html>

The first area entails inaugurating a new generation of technology transfer policies that are specifically dedicated to social enterprises and the third sector in general. This encompasses reconsidering universities' third mission to permit new forms of systemic partnerships. In these partnerships, the valorization of research would not occur solely via an economic and market-based perspective. Instead, we need novel technology transfer models that intertwine with universities' third mission. This type of technology transfer is less market- and more challenge-oriented, to engage new actors, such as social entrepreneurship, the third sector, and civil society organizations, in a more generalized perspective.

(2) Engaging 'open innovation models'

The second area requires us to extend the traditional models of open innovation to include social enterprises through more complex and structured profit-not-for-profit partnerships that enable coevolution among organizations, stimulating innovation and mutual knowledge exchange. Social enterprises can contribute to radical 'open the open innovation' initiatives through their capacity to include marginalized groups and societal challenges in innovative activities (Svirina et al., 2016).

(3) Transforming innovation clusters and ecosystems

The third area demands altering the unit of political action from single organizations to social tech entrepreneurial ecosystems and networks. As the [European Commission \(2021\)](#) has already recognized, addressing social entrepreneurship in innovation, technological, and industrial policy-making can enable the evolution of currently adopted collaborative and ecosystemic policy tools ([Gerli et al., 2021](#); [European Commission, 2021](#)). Thus, evolutionary ecosystems are the context in which to experiment with new forms of tech transfer for social enterprises. These processes can occur in novel localized and place-based living labs. In these novel milieus, all actors experiment and experientially learn how to mutually forge new modes of tech and knowledge transfer.

(4) Experimenting with social-functional public procurement and demand-side policies

Fourth, we need to revitalize and renovate demand-side innovation policies, leveraging the huge potential of innovative social procurement to offer early market opportunities to social tech start-ups or social enterprises in evolution. The policy mix between social and functional procurement may be a strong incentive for the innovative technological development of social entrepreneurship. This potential could be reinforced and integrated through designing appropriate technological reskilling patterns for social entrepreneurs.

(5) Supporting integer impact investing

Fifth, the emergent social impact investing industry must be supported to unlock the potential of blended-value, patient capital for social-tech enterprises but also steered to ensure the support it offers is not traded off against social value. This may distort both the constitutive value of social entrepreneurship and the nature of impact investing.

We contend that these policy actions may contribute to making social-tech entrepreneurship a key entrepreneurial protagonist of the evolution towards an inclusive European growth perspective.

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