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Vision and Trends of Social Innovation for Europe

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Vision and Trends of Social Innovation for Europe

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"*Every state is as we see a partnership and every partnership is formed with a view to some good (since all the actions of all mankind are done with a view to what they think to be good). It is therefore evident that, while all partnerships aim at some good the partnership that is the most supreme of all and includes all the others does so most of all, and aims at the most supreme of all goods; and this is the partnership entitled the state, the political partnership.*"

Aristotle, Politics, Book I, 1252a

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INTRODUCTION

Back in 2013 The Economist was questioning the real value of innovation for most people. Following years of innovation that had markedly improved billions of people's lives around the world, the pace of innovation had slowed, replaced by incremental improvements, increased regulation, and transient technologies with a short life-span.

Now the landscape has shifted again and disruptive innovation is affecting all facets of society – from smart phones in every pocket to digital platforms, social media, and the gig economy. Next generation technologies such as artificial intelligence (AI), virtual reality (VR), and smart devices look set to disrupt economies and societies in ways not previously experienced. There is progress on driverless transport, automated production, renewable energy, cloud-based big data, nuclear medicine, and private investment in space exploration. However, the benefits of innovation are not distributed equally. While the top 1% enjoy increasing material wealth and life choices, many people are at risk of losing their jobs, social standing, and dignity due to innovation processes out of their control. Given that there is no set framework for how to deal with the social disruption that innovation causes, the public is losing confidence in mainstream institutions' ability to protect them. This distrust has already started turning into political choices that accelerate disruption.

The current innovation dynamic may seem unique to our time but it is not. Modernity, through waves of innovation, has always stimulated fantasies of brave new worlds and fears of social decline and imminent collapse. Radical innovation in technology and economy entails social transformation: a dramatic process that forces profound changes in the lives of people, their ideas, values, habits, norms, and institutions. It transforms the world in which we live and who we are. Without such deep-seated change, there would not be social progress. And it is the hope in the "happy ending" that gives the strength to endure the discomfort associated with change. The question to address, then, is what is the happy ending and what is the best path to reach it?

We believe that social innovation is part of the answer and the European Union is an important channel to realize it. The purpose of this paper is to assist the European Commission in reviewing the social innovation agenda and devising a new vision that matches the challenges of the 21st century and meets the aspirations of Europeans. What we propose is not an exhaustive solution - that can result only from a collective and dynamic endeavour. However, in this paper, we want to stimulate a critical revision and foster a perspective that can have a real impact on the core policy-making process of the EU, and catalyse member states' action as well as citizens' participation.

In this paper, commissioned by DG Research and Innovation (European Commission), we consider the achievements of the current agenda, without glossing over failures and omissions; we question the current analytical framework leveraging the breadth and depth of research and results of recent years; and we highlight some of the new international trends in social innovation and link them to recommendations that could help the European Union to overcome the challenges identified in the White Paper on the Future of Europe, by addressing the Social Dimension of the Union.

The paper is divided into five chapters. The first chapter provides the policy and research background in a condensed form, sufficient for a reader who is not familiar with the topic to understand the essentials of the current situation and possible future developments.

The second chapter presents the rationale for a new vision to respond to changes and challenges. We trust our conclusions will steer a debate within and outside the institutions as we challenge the traditional innovation model that posits a 'linear' or 'straightforward' development from small ventures to system transformation.

The third chapter gathers a selection of emerging trends and case studies to help policymakers to redefine European priorities. The goal is not to provide a complete list but to identify those priorities which are not necessarily on European radar, and exemplify how to address them. In a global innovation society, most of the priorities are short-lived while it is more important to build institutional resilience in identifying new trends, adapting to new contexts, and shifting policy and programmes.

The fourth chapter presents our vision for social innovation, following a system approach, although it is to be considered a work in progress, developed within the scope and timeframe of this research paper. Our vision is intended to offer an original contribution to the theory and policy of social innovation.

In the fifth and final chapter, we make recommendations to the European Commission to take action for a new social innovation strategy, related to the challenges and priorities set in the White

Paper, the Reflection paper on the social dimension of Europe, and in the context of the new Research and Innovation programme that will start in 2021. These are key action points while recommendations on specific issues are sprinkled throughout the document.

This paper is a product of experience and ideas of the authors – and we take full responsibility for its shortfalls. It is also the outcome of several collaborations with European and international partners and extensive interviews with experts from a wide variety of fields and countries, who kindly shared their knowledge. We are grateful for the contribution of everyone.

1. POLICY AND RESEARCH CONTEXT

1.1 Policy Context

1.1.1 The Commission White Paper on the future of Europe and the European Pillar of Social Rights

On the 1st of March 2017, the European Commission published the White Paper on the future of Europe (European Commission, 2017c). Europe has an impressive track-record of successes but today faces existential challenges: its shrinking population compared to the rest of the word; an ageing society and consequential further pressure on services and security systems; rapid change in the family structure affecting all aspects of social and economic life; a shrinking share of the global GDP with dramatic consequences for employment and prosperity.

Economic convergence between EU Member States is slowing down while global phenomena such as globalization, urbanisation, digitisation and migration accelerate, raising the scope and speed of change and unpredictability, and threatening social cohesion. These are the roots of a growing sense of insecurity amongst Europeans and their indifference or lack of trust in the power of public institutions to protect them. The combination of all factors can lead to rushed choices when people are to cast their vote.

Therefore, the Commission is adamant on the need for a renewal of 'Social Europe' reviewing current institutional arrangements, social policies, and addressing the unattended and undesirable consequences of the ongoing technological revolution. This commitment must be included in the new social innovation strategy of the European Union as we shall argue below.

This is a job that should involve every walk of society and this commitment to positive social impact must be embedded in every activity and policy, without creating another silo – a conclusion already endorsed by the Barroso Commission in Europe 2020 and then reiterated by The Social Investment Package in 2013 (European Commission, 2013), stressing the need to build the capabilities of citizens to contribute. Ideally, we should aim at a European policy that integrates economic, industrial and social policies.

The current Commission has been open and straightforward on reconciling competitiveness and social justice since its beginning. This commitment has been repeated in all the main policies including the three pillars of the European Pillar of Social Rights package (European Commission, 2017a): (i) equal opportunities and access to the labour market; (ii) fair working conditions; and (iii) social protection and inclusion.

In the "Reflection paper on the social dimensions of Europe", the Commission made a further step calling for national governments to lead on the renewal of Social Europe. In this context, "the debate should be about how to adapt our social models to current and future challenges and galvanise Europe's social spirit" (European Commission, 2017b).

This is the policy framework within which a new social innovation strategy must be devised.

1.1.2 The Social Innovation Agenda of the European Union

Social innovation, in its contemporary manifestation, started between the late 1990s and early 2000s as a movement of social activists and researchers in the UK and, shortly after, in the United States. In the following decade it turned into policy, peaking when President Obama established The White House Office of Social Innovation and Civic Participation as he took office in 2009. Social activists were the youngest generation of the New Left/Labour who having tried changing government from within and somehow failed, joined forces with civil society activists, techno-positivists and researchers to continue their enterprise to renew Western democracy from outside governments. But social innovation was also praised by liberal parties, and in 2010 the Big Society became a flagship policy in the Conservative Party's manifesto for the general election in 2010.

In the same year, the European Union launched its Europe 2020 strategy, with Social Innovation being defined in the Innovation Union Flagship Initiative (2010) as "*an important new field which should be nurtured. It is about tapping into the ingenuity of charities, associations and social entrepreneurs to find new ways of meeting social needs which are not adequately met by the market or the public sector. It can also be about tapping into this same ingenuity to bring about the behavioural changes which are needed to tackle the major societal challenges, such as climate change. As well as meeting social needs and tackling societal challenges, social innovations empower people and create new social relationships and models of collaboration. They are thus innovative in themselves and good for society's capacity to innovate*" (European Commission, 2010).

Agnes Hubert, former adviser at BEPA and in charge of the European Commission's inter-service group on social innovation tasked with developing the first European Social Innovation Agenda, recalls those early years: "On the one hand, the consequences of the financial crisis in terms of job losses and shrinking public budgets due to ongoing fiscal consolidation efforts at Member States level had opened a space to bring social policies at the centre of the European policy agenda, together with the need of finding innovative solutions to tackle an unprecedented crisis. On the other hand, a broad and diverse coalition of people within and outside the Commission worked together with genuine commitment to build this agenda across both geographical, sectoral and disciplinary silos."[1]

The inclusion of social innovation as an official EU policy triggered a cascade of regulatory and non-regulatory actions with notable impact on the promotion of the third sector and social economy. New policies spun-off starting with the Social Business Initiative (European Commission, 2011) which brought social entrepreneurship to public attention with great benefit for the platforms and networks promoting it. Digital Social Innovation was the other major development as it leveraged technological innovation and start-up movements to address societal challenges.

The Social Investment Package was launched in 2013 to support member states in renewing their social protection systems by investing in people throughout their lives, but particularly at critical moments such as infancy, youth, transition to work, maternity and old age.

The Regulation and the new Directive on public procurement integrated social considerations into contracting procedures. In most cases financial support for social innovation has been concentrated in the employment and social policy domains - especially ESIF (Cohesion Policy).[2]

The Juncker Commission has raised the stakes through a more systemic approach. It bridged social to institutional innovation including the modernisation of social protection systems. It also enhanced the relationship with RDI activities, particularly via the open science/open innovation and digital single market agendas. Social innovation became the opportunity to promote radical experiments in multiple domains traditionally resisting change – such as governments and large companies – from piloting alternative e-currencies systems to promoting radical transparency – especially through Horizon2020 and its Collective Awareness Platforms for Social Innovation and Sustainability (CAPS) programme. This was a visionary research programme, developed to bridge social innovation emerging from grassroot communities with 'sustainable'[3] development objectives thanks to the power of ICT and multi-disciplinary, inter-sectoral and cross-national research and experimentation activities. As highlighted by David (D. A. Lane, 2015), the ground-breaking aspect of this programme lay in its underlying understanding of innovation as something intrinsically systemic and purposefully human-centred, where the aim is not "to produce just technological

[1] A pivotal role was held by the collaboration between BEPA (now EPSC, the Commission's internal think-tank tasked with providing strategic advice on EU policies and reporting directly to the President) and SiX, a pan-European network of social innovators led by Diogo Vasconcelos, who had served as Head of the Knowledge Society Unit reporting directly to then Prime Minister Jose Manuel Barroso.

[2] See for instance (Edmiston, 2016) and (Jacobi et al., 2017).

[3] As remarked by (D. A. Lane, 2015) "As a term, sustainability was originally applied only with respect to society's effects on the environment. More recently, it is gained much wider currency, particularly with respect to society: a "sustainable" practice is anything that doesn't ransom the future while attending to present problems. CAPS program material – and the vision statement present here – use the term in this wide sense."

artifacts – its Collective Awareness Platforms – but sociotechnical systems, community-based social innovation processes to achieve directed social change, in which these artifacts are embedded".[4]

New forms of funding and methods to foster innovation have been introduced in the current programming period, such as the European Social Innovation Competition and the European Capital of Innovation Prize.

Finally, the Commission introduced the "societal impact assessment" in the Investment Plan for Europe. This was a pioneering move to mainstream social impact in public and private investments, although with limitations in implementation.[5]

This rich policy context has determined a steady increase in the number of social innovation projects, methods and practices, and triggered a new wave of research increasing the collective understanding of the sector, and showing its limits – especially in moving from the experimental phase to full implementation and in achieving long-lasting positive impact at scale.

1.2 Research Context

1.2.1 Theoretical approaches to social innovation

As highlighted by recent analysts (Caulier-Grice et al., 2012; TEPSIE, 2014; Misuraca et al., 2015), since the early 2000s the number of publications and policy reports on social innovation has been growing steadily, mainly thanks to the direct support of the European Commission, and particularly under the FP7 and Horizon2020 programmes.[6]

Several definitions of social innovation have been proposed over time, building on the work of Geoff Mulgan and colleagues – the so called "**pragmatic approach**" -, who describe social innovation as "innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organizations whose purposes are social" (Mulgan, 2006).[7] While the pragmatic approach has been dominant in the European scene, it is possible to distinguish three other approaches which have been central to developing the theory and practice of Social Innovation in Europe, both at policy and funding support level. Following Giulio Pasi's classification (Pasi, forthcoming), we can indeed identify a "**systemic approach**" put forward by the Waterloo Institute for Social Innovation and Resilience, defining social innovation as a "complex process through which new products, processes or programmes are introduced, leading to a deep change in daily routines, resources' streams, power relations or values within the system affected by the innovation" (Westley & Antadze, 2010). According to this approach, social innovation is closely connected to the concept of "**resilience**", since these deep changes contribute to adjust existing systems to the emergence of new needs, preventing them from collapsing under fast-changing circumstances. A third approach – pioneered by the Stanford Graduate School of Business's Center for Social Innovation, adopts a more **managerial** stance, defining social innovation as "a new solution to a social problem which is more effective, efficient, sustainable or fairer compared to existing solutions, and which generates value primarily for society instead of single individuals or organisations (Phills, Deiglmeier, & Miller, 2008). The fourth approach to the theory of social innovation identified by Pasi (forthcoming) and put forward by (Moulaert, 2009) is defined as "**critical**" as it starts from a critique of neo-liberalism, conceiving social innovation as a process of "empowerment and political mobilisation" aimed at a bottom-up

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[4] See also (Sestini, 2012). We thank Loretta Anania, Peter Fatelnig and Fabrizio Sestini from the European Commission and Monique Callisti (Martel Innovate), Stavroula Maglavera (University of Thessaly) and Antonella Passani (T6 Ecosystems) from the CAPS projects community for their passionate insights on the projects and programme. Several interesting case-studies are available on the CAPSSI website, and useful recommendations on how to spur social innovation can be found in the DSI Manifesto.

[5] See (Lipparini, Fiorenza; Seva Phillips, 2015a, 2015b).

[6] See e.g. publications of TEPSIE, http://tepsie.eu/index.php/publications; SI-DRIVE, http://www.si-drive.eu/?page_id=871; TRANSIT, http://www.transitsocialinnovation.eu/downloads; and CRESSI, http://www.sbs.ox.ac.uk/faculty-research/research-projects/cressi/cressi-publications. See also (Howaldt, Kopp, & Schwarz, 2016); (Cunha & Benneworth, 2014); (Haxeltine et al., 2013) and (BEPA, 2011).

[7] For a comprehensive review of the various definitions of social innovation see for instance (TEPSIE Project, 2014; The Young Foundation, 2012) (Misuraca et al., 2015). In fact, from a theoretical perspective, a review conducted as part of the WILCO project (2013) concluded that in the broader literature, social innovation cannot be assigned to any paradigm within any single social science.

transformation of the functioning of a social system both in terms of stakeholders and in terms of distribution of material and immaterial resources.

As highlighted by (Bekkers, Tummers, & Voorberg, 2013), due to its multi-disciplinary and practical vocation, social innovation is a "fuzzy" concept. (Harrison D & Jensen J, 2013) define it as a "quasi-concept", and, as highlighted by Misuraca, it is precisely because of its characteristics of multi-disciplinarily, cross-sectorality and multi-dimensionality that social innovation is particularly interesting as a bridge between theory and practice, which also explains why it is often very effective in informing policy-making. According to Misuraca et al. (2015) and building on (Bekkers et al., 2013), social innovation is characterised by the recurring presence of four key elements:

1. Need-driven/outcome-oriented production: outcomes are intended to meet the needs of society or specific groups in society in a long-lasting way (BEPA, 2011; Mair & Marti, 2009; Mulgan, 2006).

2. Open process of co-creation/collaborative innovation networks: end-users and other relevant stakeholders participate in the development, implementation and adoption of these innovations (Gloor, 2005; Bason, 2010; Bommert, 2010; Sörensen & Torfing, 2011). Relevant stakeholders bring in their knowledge, information, experiences and resources so that they can be shared in order to produce innovative outcomes that are relevant to them.

3. Fundamental change in the relationships between stakeholders: the ways in which stakeholders relate to each other, how they interact with each other, and how they collaborate with each other are radically changed. Social innovation tries to act as a 'game changer', breaking through 'path dependencies' and disciplinary silos (BEPA, 2011). As a result of social innovation processes, it is argued that need-driven services require the establishment of new collaborative relationships and new institutional arrangements (European Union, 2010; Sörensen & Torfing, 2011; Bates, 2012).

4. Public value allocation and/or re-allocation: in the achievement of these values it is not only important to look at the presumed or achieved consequences of the innovation in terms of effectiveness or efficiency. The public values pursued by social innovation also try to ensure that the innovation is an appropriate one, for instance because it adds to the value of democratic citizenship, or really addresses – in terms of responsiveness – the needs of citizens (Mulgan, 2006; Cels et al 2012).

Overall, while definitions vary extensively also based on scholars' scientific background and/or policy objectives, social innovation is generally intended **as a collaborative process where organisations (from different sectors) and individuals (including service users and providers), come together to address new social issues or improve the way of addressing old ones, thereby creating public value. If innovations are successful, these can scale - either by being mainstreamed within the public sector, by being replicated, or by being rolled out in the market. In time, the adoption of these innovations brings about systemic change.** This process is often visualised in existing literature via the so-called spiral of social innovation as shown in the Figure below.

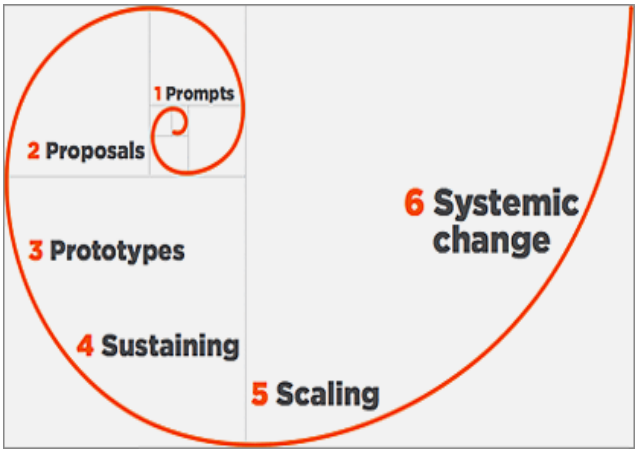

Figure 1: Spiral of Social Innovation - Source:(Caulier-grice, Mulgan, & Murray, 2010)

2. FROM LINEAR PROCESSES TO COMPLEX SYSTEMS: RETHINKING SOCIAL INNOVATION

2.1 The systemic dimension of social innovation

In the last decade, while much effort has been put into accelerating the process of scaling-up social innovations, most known initiatives seem stuck in the upper left quadrant of the social innovation spiral at the prompt, proposal, and prototype stages. The "classical" spiral conceptualisation of social innovation and its processes is certainly useful but first **it does not account for the complexity and interconnectedness of the global challenges that social innovation in its systemic dimension is called to answer** and, secondly, it does not consider the fact that **innovation is far from being a linear process**.

But what is the systemic dimension of social innovation and why is it important?

Taking a system approach means acknowledging that we cannot intervene on a single problem, or target a specific person or group, without intervening at the same time on interrelated problems and groups. Similarly, our interventions are likely to be modified by the actions of other stakeholders and people, while also being affected by ongoing macro-trends.

We exemplify the systemic dimension with a true story. When Ms. Ann Cotton arrived in Zimbabwe in 1993, she realized that the only way to ensure that girls attended school was to eradicate poverty from their lives. HIV had left many girls orphaned and caring for siblings. Poor safety and poor sanitation prevented many girls, particularly adolescents, from going to school. Ann decided to consult with the wider community: not only parents and teachers, but also local community leaders and health workers, on how to improve things. As a result, her organisation, Camften, started to support girls through the whole education cycle, but also began to train teachers, parents, and healthcare workers to manage money and start small businesses so that they could ensure a secure environment and take care of girls at school. After a few years operations were extended to Ghana, Malawi, and Zambia, with a view to improving the conditions and environment in and around schools for girls to prosper. However, the model pioneered in Zimbabwe could not simply be replicated since stakeholders and local contexts were different. So, for instance, in Zambia, Camften helped government to shape policy—not just for education but also safety, developing strong legislation that protects all children with zero tolerance toward abuse and violence. To enforce these laws, Camfed has trained healthcare workers, judges, and the police on top of school personnel (SCOTT et al., 2014). Usually to achieve a specific social outcome – such as empowering young girls via education – requires a broad range of interventions across sectors, levels of government and involves different stakeholder groups as well as individuals, for a long period of time. In this case, it meant working with girls from early childhood throughout their life course, as well as with their families, communities (including established organisations and informal networks) across a broad range of issues, ranging from air pollution to nutrition, housing, health, transport, social capital, safety, etc. Then it has to deal with public services and institutions.

In European countries acting at system level is even more complex, as public services are strictly regulated and required to comply with a broad range of standards, while different levels of governments are responsible for different services, often with little integration. Moreover, delivery is often shared across public and private sectors and incumbents are in a dominant position with little room for disruptive innovation due to the mix of political, economic and social vested interests. **Importantly, context matters, and complexity is never the same across geographies or over time, which is the reason why so many efforts to duplicate successful social innovations in different countries failed or took long time to materialise.**

2.2 Overcoming the spiral model: social innovation as a context dependent phenomenon

The current interpretation of social innovation is inadequate to address this level of complexity. As highlighted by (Edmiston, 2016) and Pasi (forthcoming), social innovation has been conceptualised by the hegemonic pragmatic school as something non-historical, deprived of any given socio-economic, political, institutional or cultural context and therefore resulting in a positive end in itself, lacking any basis for constructive criticism. Following this approach, social innovation is reduced to the Schumpeterian vision of entrepreneurship with 'social' treated as a denominator to specify its objective and modality. In other words, it becomes just a matter of "better management" and "smarter use of resources and relationships"**. Most importantly, the pragmatic interpretation does not consider the importance of values as a plurality – not only those driving innovator(s), but the ones of all people involved in innovation – and**

the importance of politics and power relations in determining the creation, uptake and spread of social innovation.

As highlighted by (Edmiston, 2016): "Social innovation is often conceived as a unifying policy concept around which diverse stakeholders can coalesce and organise. The emphasis placed on 'new' and 'novel' approaches to social problems is presented as a departure from established modes of thinking and action that transcend existing political and socio-economic divisions. However, effective measures to foster social innovation require political, economic and social transformations that realign or displace existing power relations and socio-structural dynamics. In certain instances, this can (and perhaps should) generate conflicts between the differing operational functions and ideological interests underpinning social innovation. For example, measures that pursue some degree of social innovation may not necessarily cohere with strategies for economic growth or support the role of the welfare state in need provision (Brandsen, 2014)".

Furthermore, social innovation has been largely reduced to the third sector and social enterprises - more recently start-ups. The result has been booming support for a myriad of social projects in their early stage, hiding the delusional hope to find "social unicorns"[8] able to rapidly scale. But, as highlighted by (D. A. Lane, 2015) this is a misunderstanding, rooted in an "innovation ideology"[9] according to which "Whatever problems – economic, social, even cultural – arose, the response began with the mantras "innovate, innovate, innovate" and "growth and jobs." This is a linear and reductionist interpretation of socio-economic development that has been repeatedly disproved by economic sociology in the last 30 years.[10] Of course, there are fantastic examples of innovative ideas which became successful enterprises achieving remarkable results. The Grameen Bank as "the bank of the poor" in the definition of the founder and Nobel Prize laureate Mohammed Yunus is an outstanding example of success, giving access to credit to millions and having created a new global industry to do so worldwide. Moreover, a growing number of high tech start-ups include positive impact as part of their core mission. This is a trend proved and supported by an increasing number of accelerators and incubators specialised in supporting digital social ventures. Based on DG CONNECT's experience with funding tech-start-ups,[11] Peter Fateling argues that "at the very beginning, nearly every innovation is purely social, aiming at bringing some benefit to people and society. Whether you can make money out of it or not you will find out later, but the value of the product to society comes first, where monetizing this value is only a second step. This also means that, from an investor perspective, the product/service and related user acceptance levels should be more important than the business plan". Sir Ronald Cohen, a pioneer in venture capital and impact investing, believes that this has also to do with the aspirations of Millennials, who are now entering leading positions as entrepreneurs in the job-market, and are looking at achieving both social and financial returns, considering their professional life as the main way to make a difference in society – not philanthropy.[12]

While the number of social entrepreneurs (and social venture capitalists) is on the rise, identifying social innovation is not so obvious. In our interview with Agnes Hubert she highlighted that: "social innovation is often to be found in unexpected areas and operated by people who would never define what they do as such. Two of the most interesting meetings I had while working at BEPA to build the first European Social Innovation Agenda were with two generals who, in different ways, were sicking advice on how to best support ongoing social innovations within the army". Indeed, the borders between traditional and innovative organisations are far from clear-cut. Therefore, it is fundamental, when supporting social innovation, to overcome sectoral barriers and encourage instead synergies and cooperation between the public, private and third sectors. In the interview with Volker Then (Centre for Social Investment and Innovation at Heidelberg University) he elaborated on the same point: "So far, most efforts were put into studying and supporting social ventures and third-sector organisations, intended as engines of social innovation. This is of course largely true: we have now enough results – look for instance at the ITTSOIN project – showing that the third sector often acts as an R&D laboratory of social innovation; however, it is also clear that

[8] See (D. A. Lane, 2015) and (Johar, 2017a, 2017b)

[9] As summarised by: (D. A. Lane, 2015) "the market decides the directions in which society goes. In this account, the economic sphere – in which entrepreneurs propose and consumers choose and use – is hegemonic. The political sphere's role is subordinate to the economic sphere, and the account assigns no role whatsoever to the civil sphere".

[10] Herbert Simon and Mark Granovetter have, amongst the others, extensively documented the interplay between social and economic dimensions inside the firm and the markets, stressing how social values and institutions influence economic outcomes in fairly diverse forms and following unpredictable dynamics.

[11] See for instance programmes such as StartupEurope, Fi-Ware and CHEST (this latter was the first EU project to fund early stage social innovations).

[12] This is confirmed by several reports investigating Millennials' habits, including (Deloitte, 2017; World Economic Forum, 2013).

to unlock the full potential of social innovation it is necessary to move beyond the third sector. In fact, we have become used to speak about scaling social innovation(s), while we should instead think about disseminating it through markets. This is different from CSR: it is not about legitimizing a business, but embedding social innovation in the business model, shifting the mindset of investors and consumers. This is precisely what happened with fair-trade, clean-energy or biologic food: what determined success (not of single organisations, but as system) was a change in values of investors and consumers, and this determined the success of the idea. Most recently, sustainable and impact investments are showing how an effective value proposition aligned with a change in mindset create new markets".

2.3 From supporting start-ups to enabling system-change

We do not argue against supporting social innovation as early stage experimental interventions. This is certainly of great value. But we state that this is far from being sufficient to address the grand societal challenges that European societies face. Moreover, interpreting social innovation as start-ups and new individual projects has several shortcomings. First, it legitimises the innovation ideology that reduces innovation dynamics to the power of markets while researchers such as Elinor Ostrom, Mariana Mazzucato and David Lane have, amongst many others, demonstrated this is a naïve fallacy. Secondly, it distorts the assessment process reducing success to economic value, leaving aside the large variety of values forming innovation dynamics. So many are the people and stakeholders involved - the innovator/entrepreneur is just one node amongst others in the system. Finally, this interpretation risks validating the retrenchment of the welfare state, opening the way to outright privatization. The latter is a serious risk for policy – public opinion is sensitive to this argument - and we are persuaded that it was the main cause for the failure of Cameron's Big Society. Certainly, we are still far from a genuine multi-stakeholder approach. On the contrary, there is a concrete risk of encouraging duplication and waste, with loss of coordination and negligible outcomes.

On the other hand, we do not live under the illusion that it is sufficient to look back when the State was in charge – or the European Union. This is a nostalgic position that betrays an unsuitable naivety to address the challenges of our time. Most societal issues are today closely interconnected and dependent on global trends such as changes in demographics, globalization, and climate change. The tremendous pace of technological advances adds to this complexity. But the current institutional infrastructure can hardly deal with this complexity. It was designed to address the issue of nation states and industrial economy and has hardly moved from that position. The Welfare State with a sum of institutions with a shared mandate, and coordination structure to respond to social needs has struggled to transform its vision and structure to respond to fundamental changes in demographics, family structure and cultural values; not to mention the economy and job market.

Clearly, current institutional infrastructures, the Welfare State in particular, are no longer adequate to cater for our hyper-technological, increasingly globalised, and rapidly ageing society. Therefore, a growing number of people and new organisations are filling the gaps – often in collaboration with the public institutions. This is not about being pro or contra the public sector as a certain innovation ideology would posit. People and organisations – including private companies – care for social progress and values, and government has a strategic role to play in harnessing this incredible energy. It's about redefining the role of public institutions and the relationship with society. Manuel Arenilla-Saez, as a public servant and leading thinker in public sector innovation, makes this point: "The state is not any longer the only responsible agent of providing public services and goods to solve social problems. The role of the state is changing: it has become an enabler that promotes and guarantees social action. Social innovation emerges as a new approach in order to foster the renewal of the public sector and to reduce its shortcomings. In this context, social innovation brings a new meaning to co-creation and co-management of public services".

For decades, social enterprises and third sector organisations have met specific needs that were not addressed by standard welfare programmes. Large companies have been taking an increasingly strategic approach with Corporate Social Responsibilities, adding social and environmental impact to the bottom line, intervening in the supply-chain and in the wider ecosystem to achieve systemic impact, and developing new forms of welfare services for employees (M.E. Porter & M.R. Kramer, 2011). New strategies are emerging everywhere as the limits of current institutions in ensuring people's wellbeing become more apparent. They also include forms of entrepreneurships such as social entrepreneurship, makers, start-ups; new ways of accessing and providing capital such as crowd-funding, peer-to-peer lending, impact investing; new forms of responsible consumption and production (circular economy, green economy, blue economy); and new forms of collaboration and civic participation such as crowdsourcing and direct or liquid democracy.

However, these new strategies lack coordination to deliver systemic transformation, and a shared narrative to realise that they all belong to the same change of paradigm in public good creation. Targets set by multi-national institutions such as the EU2020 targets or Sustainable Development Goals (SDGs), are insufficient to mobilize citizens and organisations: they hardly meet their perceived priorities and are largely insufficient to compensate for the shortcomings of institutions. This ultimately damages public trust in institutions (Cassese 2006 and 2013, Latouche 2004). It's a vicious circle. At the same time, support and funding for active citizens and their organisations is inadequate. (Johar, 2017a) pictures the situation with an exemplary comparison: "The UK alone buys £1 billion of ice cream a year, while the largest social investment fund is only £600 million."

Indeed, there is broad consensus among both practitioner and academics,13 on the need to rethink social innovation in its systemic dimension to really achieve long-lasting and positive impact, answering in an effective way the existential crisis faced by 21st century institutional infrastructures. Therefore, we argue with no reticence to give up on the linear model of innovation and move decisively to a system approach. As highlighted by Mario Calderini (Politecnico of Milan) "There is an urgent need to shift from supporting start-ups, to social entrepreneurship and innovation in public, private and third sectors as a transformative engine for socio-economic development. Social entrepreneurship and innovation are the link between individual empowerment and socio-economic transformation. Social change is a source of entrepreneurship as much as technology. In the industrial society, government invested heavily in RDI expecting in return knowledge-intensive industries to generate new and better products, services, wealth and jobs. In the post-industrial society, social entrepreneurship and innovation can complement knowledge-intensive industries in performing this function in society. This is the rationale for breaking down silos between economic, social and industrial policies".

Successful social entrepreneurs have been among the first to acknowledge this reality, as recently highlighted in WEF's report "Beyond Organizational Scale: How Social Entrepreneurs Create Systems Change": "While the sector has long been obsessed with aspiring to achieve scale, systems entrepreneurs seem to take a different approach altogether. They use their operations to influence the linkages and interconnections of the system rather than reaching all intended beneficiaries with a predefined solution". This means that, in most cases, impact is achieved via "a mindset that removes the organization or programme as the framework to devise action, and is focused instead on influencing the system. This is also the declared strategy of Elon Musk in driving environmental sustainability in the car industry: Tesla is forcing all the main car makers to shift from gasoline to electric engines by changing market demand, not by growth of his company. Most noticeably, this mindset shift is achieved out of frustration with the impossibility for entrepreneurs to meet the scale of demand.[14]

While most system interventions so far were born out of failed attempts to achieve positive social-impact at scale, complex system science and network analysis approaches powered by internet technologies[15] can support both practitioners and policy-makers to plan and implement interventions positioning their action at the system level from the beginning. This means moving beyond the "quick-fix" approach and really start rethinking institutional infrastructures. Indeed, if we consider welfare models as complex systems, we will be able to re-interpret social innovation as strategies to change these systems in line with the needs and aspirations of people and their

[13] See for instance (Conway, Masters, & Thorold, 2017; Johar, 2017c; WEF, 2017)

[14] In the words of Jordan Kassalow, founder of VisionSpring and co-founder of EYElliance: "it became obvious to me that we could grow 50% or even 100% a year for many years to come and still never be up to the challenge of solving this problem. It became stressful for me to think about scaling from 2 million to 3 million to 5 million – huge numbers for any social entrepreneur – but still just a drop in the bucket compared to the 2.5 billion people who need this simple product. And the reason I launched a multi-stakeholder alliance is because the barriers to solving this problem, like cultural issues, custom duties, and supply chain problems, cannot be solved at an enterprise level" (WEF, 2017).

[15] Complexity theory refers to the study of complex systems, an analytical approach that investigates how relationships between a system's parts give rise to its collective behaviours and how the system interacts and forms relationships with its environment. The behaviour of complex systems is inherently challenging to understand, model, or predict, due to the myriad inter-dependencies, relationships, and interactions between the parts of a single system, or between multiple systems that constitute a 'system of systems'. Systems that are defined as "complex" have distinct properties and characteristics that arise from their relationships, including for example nonlinearity, emergence, spontaneous order, adaptation, and feedback loops. The interacting components of a complex system create a network – a collection of discrete objects and relationships between them. Studying complex systems as social networks enables us to go beyond the level of abstract theoretical conceptions of 'objects' or 'components', and instead focus on the actors who are having an effect on and being affected by the system.

communities putting them in the driving seat of change.[16] Increased awareness of the tremendous social and economic challenges Europe is facing, as well as the fact that the public sector is unlikely to have the resources necessary to meet these challenges,[17] together with the new possibilities offered by internet technologies in terms of facilitating sharing of ideas and collaboration, has galvanized efforts of multiple stakeholders and individuals to drive positive socio-economic change.[18] The rise of impact investing, the growth of social enterprises, the professionalization of third sector organizations, the spread of peer-to-peer networks and a growing community of new and traditional businesses which, often under the pressure of consumers, are committed to making a positive difference in the context where they operate, has led to the creation of a complex ecosystem of actors committed to using their different resources, skills and networks to overcome a broad range of social issues. However, we are still far from understanding how and to what extent people and institutions – the main actors in the system – interact and/or influence each other at local, national and international level - and how this translates into tackling and/or creating entrenched social issues. This is the next step for research and experimentation in social innovation.

3. CURRENT TRENDS IN SOCIAL INNOVATION

Based on the analysis of literature, projects, and expert interviews, and in line with the main challenges identified in Juncker's White Paper, we have identified seven macro trends of great significance to social innovation as transformation of systems:

1. Institutional Capacity and Wellbeing
2. Democracy and Trust
3. Skills and the future of work
4. Internet Technologies and On-line/Off-line interactions
5. New Financial instruments
6. Urban Renewal
7. Global Interdependencies

Below we provide an overview of the main challenges and opportunities for each trend, as well as relevant case studies to illustrate the trend through practical real-world examples. The cases show, in different contexts and areas and to different degrees, how stakeholders and people are re-organizing around a shared mission to tackle entrenched societal issues following a multi-stakeholder approach and leveraging on different assets, skillsets and networks.

While different cases are positioned at different stages on the "wave of change" (Goldstein, Hazy, & Silberstang, 2010) multi-stakeholder partnerships for public good is a shared trait of all trends. This is particularly evident in the Democracy and Trust and new Financial Instruments trends already crystallizing in defined new models such as the "welfare-mix". There the role of individuals

[16] From a theoretical perspective, the model proposed by (Goldstein et al., 2010) is useful to help explain the emergence of social innovations (in this case social enterprises) in the system in terms of the interaction between two parameters – the opportunity tension and informational differences. When these parameters reach certain thresholds a 'new attractor' (i.e. innovation) occurs around which society will gradually adjust. On complex systems and social innovation see also (Bartlett & Grabbe, 2015) and (D. Lane, 2013).

[17] This is what, following Goldstein's model, we would call opportunity tension: the inadequacy of existing welfare states (or, at a more granular level, of existing services and products), to meet the increasingly entrenched social and economic issues Europe is confronted with (or to a more granular level, the increasingly diverse and personalised needs of a growing number of individuals and groups). Opportunity tension increases as a growing number of individuals and organisations realise that their needs are not being addressed properly, and that they won't be able to address them following the usual patterns or by acting in isolation. A new level of complexity is increasingly perceived by different actors, calling for enhanced cooperation and new skills/knowledge and assets to better understand and overcome a problem.

[18] This is what we would call informational differences: the ensemble of stakeholders working at renewing welfare systems together with their different viewpoints, skills, networks, assets, cultures etc.

and private organisations in designing, implementing and funding public goods and services is at its strongest. But impact partnerships are increasingly important also in less obvious areas, such as Capabilities and Wellbeing and Urban Renewal. Digital technology – both as an enabler of social innovation and as a cause of disruption requiring innovative intervention – is another pervasive feature in all trends: while this is the explicit object of trends three and four, most cases are either leveraging on digital technology or tackling digital disruption. Digitally-powered participation characterizes strategy and implementation processes. In most cases the success of social innovation initiatives highlighted in this paper has been underpinned by a thorough and shared knowledge of different issues at stake, and engagement supported by a shared impact assessment framework allowing all partners to monitor impact achieved, potential negative externalities, and evolving needs. Finally, it has become evident the progressive melting of boundaries between sectors and categories of the industrial age: state and market; public and private goods; economic and social dimensions. Digital innovation has accelerated and magnified the process.

3.1 Institutional Capacity and Wellbeing

As the concept of wellbeing changes following personal and group preferences, and in response to on-going mega-trends such as digitization, flexible work arrangements, globalization, an ageing society, and fast-evolving family structures, institutions need to empower citizens and organisations to thrive by catalyzing and guiding existing efforts, networks, and resources via regulatory incentives, support policies, and engagement aimed at building collective impact partnerships. In turn, this requires investing substantially in building institutional capacity. In the words of Manuel Arenilla-Saez "the technical, logistic, human and financial resources which public institutions (namely, Government and Public Administration) own that enable them to deal with the challenges they face and to develop their functions in an effective and sustainable way".

From the point of view of the public sector, ICT has profoundly changed the way governments address citizens' wellbeing. Over the last 20 years, there has been a global trend towards e-governance and digitisation of public administration to enable citizens to access public services online. However, as the quantity of citizens' data in the hands of governments and public organisations grows, ensuring security and privacy becomes increasingly difficult. At the same time, since data has been collected over time by different administrations, interoperability and communication issues often prevent both citizens and public service providers accessing all the data they need or bringing them together. Regulatory issues can also be a problem: for instance, in many EU countries, citizens do not have a right to access their own health record unless their doctor grants it, which can create problems when changing doctor and even more so when moving to another country. In spite of these issues, a growing body of studies shows the potential of internet technologies to improve public services. As highlighted by the Commission's Report on Big data analytics for policy making, "these rapidly evolving technologies and tools provide unprecedented opportunities for data-driven insights to efficiently and effectively deal with complex policy issues" (Barbero, 2016). This is also the conclusion of the Commission's project IESI (ICT enabled social innovation for the implementation of the Social Investment Package) according to which technology coupled with social innovation can greatly contribute to achieve the policy objectives of fostering social inclusion, investing in people throughout their life and contributing to the sustainability of our protection services (Misuraca, Kucsera, Lipparini, Voigt, & Radescu, 2016). The case of Innovillage in Finland provides one good example of public sector innovation for greater capabilities and wellbeing (see 4.1.1). As highlighted in our interview with Csaba Kucsera (former IPTS-JRC) the issue of inter-generational solidarity is also key for building capabilities and wellbeing: "We need to prepare for ageing population in advance and re-structure funds towards this goal. For example, in the UK the cases of time-banking and befriending are good examples. They create social capital. Social capital is one of the main capitals you can rely on, and you can become much "richer" through social capital in many senses. It's about trust and solidarity in society." In this regard, one good example of multi-stakeholder approach is the Commission's European Innovation Partnership on Active and Healthy Ageing.

Social innovation to increase capabilities and wellbeing is not only a project for the public sector, and our research finds interesting initiatives emerging from the private and third sectors. As highlighted in our interview with Cynthia Hansen (Adecco) system change for capabilities and wellbeing requires a cross-sector approach: "to reinforce system change at corporate level and system level, it can't be corporations operating on their own in isolation. Corporations need funding, support, subsidies to drive this change. We also need market research into who are other players, what partnerships can we build, get the right people around the table, government, civil society, not in isolation: endorsing existing structures and bilateral lobbying."

One example from the UK is social enterprise My Support Broker (MSB), that has developed an innovative model to empower people to plan and self-manage their social and health care. MSB recruits and trains people with long-term conditions or from disadvantaged backgrounds (disabled people, older people, people with an ethnic minority background) as volunteer or professional 'peer

brokers' who support others with similar care needs. In 2015, the MSB community consisted of over 5,900 "People Helping People", with every £1 spent on MSB Support Brokerage produced a saving for them of £8.65 (average) on the cost of care, a 65% reduction in transaction costs and the overall cost of care by up to 20%.

Another example is Integrated Care Healthy Kinzigtal (IVGK) in Germany, a regional integrated health and social care system managed by company Gesundes Kinzigtal, established in 2005 in Haslach, and adopted by around 10,000 citizens of the Gesundes Valley region.[19] IVGK provides a "social case management" service, providing patients with integrated health and social care by joining physicians up with tailored services to help patients including: 43 sports, fitness and social clubs; lectures; self-management training courses; information sessions; campaigns; and corporate health promotion for employers. IVGK has conducted consultations with thousands of patients and increased their support, service take-up has been 58% among GPs and specialists in the region, and insurance companies using the IVGK service have reduced costs per person by 7% due to the care benefits achieved.

Private companies are also increasingly active in providing welfare services to their employees, with a view of facilitating work-life balance. This is a clear win-win in many EU countries, were services such as childcare, elderly-care or health-insurance are considered more attractive than high salaries, particularly for double-income households where these services are often expensive, and taxes on salaries high. Assolombarda are the employers' representative body in Italy. From their experience in supporting member companies in negotiating agreements with the trade unions, the most common welfare measures requested, or offered, are: additional health insurance, increased contributions to supplementary pension funds, fuel vouchers, flexible working arrangements and reimbursement of care expenses or school expenses. Resources of the public welfare system are limited. So, tax breaks or social security exemptions facilitated by government have allowed the social partners to promote differentiated welfare plans with benefits hinging on shared productivity plans. Companies are reaping the rewards with better employee retention and increased productivity. AgeingWorks is a digital health, wellbeing, and eldercare platform in the UK provided by The Positive Ageing Company that targets private and public employers and their employees who care for an ageing family member or loved one (older dependent). The AgeingWorks online platform provides eldercare support, information, action steps, online and offline support, products, services, and resources for active/healthy ageing including online monitoring tools, a set of healthy ageing apps, and a family dashboard accessible to employees, their families, and care helpers to facilitate self-care management. The AgeingWorks platform is used as a paying service by both private companies and by public sector organisations such as the NHS, and feedbacks from both employers, employees and elderly people depending on employees have been very positive. In terms of benefits, the AgeingWorks platform reduces costs of taking care of ageing parents for employers, it helps to keep ageing workforce in the labour market, and it supports healthy ageing and independent living for older people in the UK.

From a public goods and welfare perspective, policymakers, experts, and innovators are also experimenting with new finance for capabilities and wellbeing in the form of Universal Basic Income (UBI). Pilot studies with UBI are already taking place in Canada, Finland, the Netherlands, Kenya, and in the United States. The European project PIE NEWS is also experimenting with UBI as a way to overcoming new forms of poverty such as in-work poverty. Results of these pilots are to be assessed before moving to implementation at scale.

Overall, in relation to social innovation trends for building capabilities and wellbeing, the main opportunities and challenges for social innovation that emerged from our research include: new tools, methods, and intermediaries to help co-create solutions for wellbeing; ageing society and changes in family structures; building and sharing capabilities across sectors, boundaries, and borders; work-life balance; empowerment and autonomy; value and values; combatting loneliness and isolation, promoting inclusion; education, skills and training.

3.1.1 Case Study: Innovillage (Finland)

Innovillage is an open innovation environment for health and welfare. It provides tools, events and support for the collaborative and open development of different ways to promote health and welfare. The platform was set up by The Association of Finnish Local and Regional Authorities, National Institute for Health and Welfare and SOSTE Finnish Society for Social and Health and funded by the Ministry of Social Affairs and Health, TEKES – Finnish Technology Agency for

[19] The service is provided in partnership with the local GP network (MQNK), another care management company specialised in medical sociology and health economics (OptiMedis AG) and two statutory health insurers: AOK Baden-Württemberg and SVLFG.

Technology and Innovation and Finland's Slot Machine Association. The initiative was launched to answer three opportunities identified by the public sector in Finland:

- An ageing population, a shortage in skilled social and health workers and the increased pressure on public budgets called for new models and solution in order to guarantee the long-term sustainability and quality of social protection systems;

- (ii) The Ministry of Social Affairs and Health and other public service providers had identified and funded a broad range of development projects over the course of decades, but only a few initiatives had reached scale within a sector, not to mention across sectors. Very similar solutions had been developed by different stakeholders with duplication of effort and waste of public money;

- (iii) Various public and third sector organizations had developed their proper database of good practices, with very limited circulation.

Innovillage was developed as a unified and interactive platform to develop and share practices and models and to build on what was already working across sectors and geographies. Currently there are 1000 examples of social innovation in Innovillage from the public and third sectors. The users of Innovillage include public service providers and developers, non-governmental organizations and private service providers. The core of Innovillage is the web-service that provides information and tools for the development of activities. The web-service has a collaborative development environment where people can work together and produce and evaluate novel solutions and other service innovations. Innovillage enhances the distribution of successful solutions and new models of services by organizing events and making all results available to everyone. Innovillage also organizes tutor training to improve the know-how for creating and developing new service innovations. A set of development methods in the web-service provide additional and practical support for the developers, such as ways of organizing workshops for collaborative development. As explained in our interview with Juha Koivisto (National Institute for Health and Welfare, Finland), a key part of Innovillage's success is based on the mixture of online and offline service engagement:

"We have in Innovillage online tools but also activities where we meet people face to face. Without the latter Innovillage would not work. We have to train people to work with the platform –it's a bit difficult to start alone. Because of this we try to simplify the platform, however, the models and solutions do not transfer or travel very well only via a platform, some other kind of activities is almost always needed. Innovillage is an innovation community, not only a platform."

Overall, Innovillage and its tools are founded on a systemic innovation model. It provides the power of innovations for developers in a practical way through three iterative sections: stimulate, incubate and enact (see Figure). Each of these sections includes various tasks that every innovation process has to take into account. The innovation model supports co-creation and co-development of innovations.

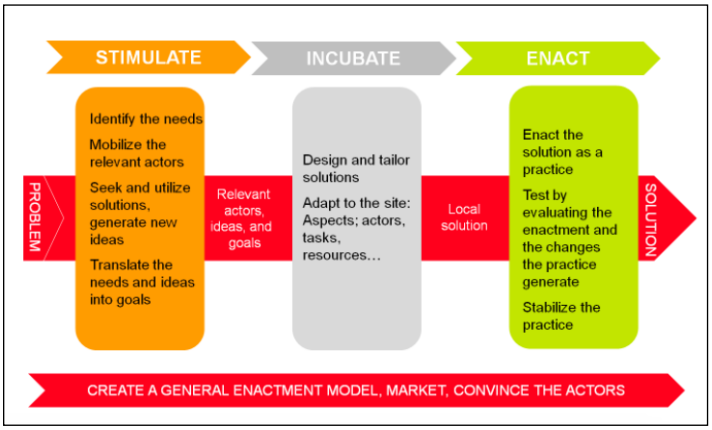

Figure 1: Innovillage's Systemic Innovation Model

3.2 Democracy and Trust

As stressed by the Commission White Paper on the Future of Europe, people are becoming increasingly disillusioned with public institutions and the democratic process itself. Alarmingly, academics, businessmen, journalists and even NGOs' representatives have been increasingly perceived as "policy-makers" and accused of being out of touch with reality while representing vested interests rather than "the people". This is a global phenomenon. The 2017 Edelman Trust Barometer pointed out that two-thirds of the 28 countries surveyed show levels of trust in the 4 mainstream institutions (business, government, media and NGOs) below 50%. Even more worryingly, "only 15% of the general population believe the present system is working, while 53% do not and 32% are uncertain": fear for the effects of corruption and globalization affects over two thirds of respondents, with concerns around erosion of social values, immigration and rapid pace of technological change following closely. Within this context, there are several key areas of social

innovation related to democracy and trust that emerged from our research (*2017 Edelman Trust Barometer*, 2017).

The internet, thanks to smartphones and social media, has been saluted as a powerful tool for democracy to increase accountability, communication, access, efficiency, and transparency (National Democratic Institute). The New Scientist (April 2015) points out the main ways in which e-democracy's "online tools are revitalising old representative democratic practices – and might even mean the end of politicians" are: (i) Direct democracy – where citizens vote on policy decisions directly; (ii) Liquid democracy – where citizens have the option of delegating their mandate on a per-vote basis to individuals who may be better placed or informed on a particular issue; and (iii) Deliberative democracy - a form of direct democracy in which citizens participate in policy debates as part of a consensus-building process. As an example of deliberative democracy, Open Ministry in Finland is an online platform for crowdsourcing legislation where citizens can debate, develop, and propose legislative initiatives. The aim is to make Finnish legislation more transparent and fair, and the platform has been recognised by the government since 2012. In Germany, Liquid Democracy is a technological voting infrastructure whereby voters can vote directly or delegate their vote to specialised representatives on each issue. New technologies can be used to increase citizens' political participations, for instance the 40 Voter Advice Applications (VAAs) operating in Europe; MySociety, which runs WriteToThem, a website for UK citizens to contact their elected representatives, and FixMyStreet, which sends complaints from local residents (about problems like graffiti and street lighting) to councils on behalf of users; and Collaborate Bologna that launched the project "Human Ecosystems Bologna", collecting collaboration ideas in the city and transforming them into a source of Open Data for citizens, a series of real-time info-aesthetic visualizations at the Urban Center in Bologna, and a series of training initiatives dedicated to designers, artists, innovators, students, researchers, administrators and policy makers. The European Commission has encouraged research and innovation actions to foster civic engagement for the public good and e-democracy, particularly under its Horizon 2020 programme's Collective Awareness Platforms for Sustainability and Social Innovation (CAPS)[20] and The Future & Emerging Technologies (FET). Projects include D-CENT on decentralised citizen engagement technologies; and ODYCCEUS that uses information gathered on social media to understand, monitor and try to resolve the growing number of social crises due to cultural differences and diverging world-views. It is fair to acknowledge that political innovation is not driven by technology only. Participatory budgeting – the democratic participation in designing public expenditure – is one of the most celebrated examples. Piloted in Porto Alegre in Brazil in late '90s the concept has been replicated in several places in the world, in different forms and administrative levels with an impressive popular participation. Paris and Lisbon adopted it to define a portion of the municipal budget and the Portuguese government has made it one of the flagship projects in the current administration. However, ICT can also greatly reinforce participative processes, including at multi-national level, as proved by project EMPATIA which is implementing a civic platform in Lisbon, Zurich and Milan allowing citizens to discuss and vote on how to allocate 15% of the cities' social budgets. Collective discussions and decision-making are facilitated by an iterative game, which allows people to critically reconsider choices and to prioritize them based on new insights acquired. Interestingly data collected will allow a better understanding of the relationships between users' exchanges (in terms of ideas, information and opinions provided and received) and voting behaviours.

However, e-democracy approaches are not necessarily conducive to a pluralistic debate, because marginal voices can be drowned out by noisy, or powerful, majorities. Direct democracy should be considered with care, since consequences might be unpredictable or strongly influenced by anti-establishment sentiment as the Brexit vote showed.[21] The issues of fake news, filter bubbles, echo chambers, targeted advertising, and net neutrality also need to be closely monitored and addressed.[22] Another issue with e-democracy is the risk of it turning into lip-service to participation: ideas put forward by citizens are not followed-up by action of policy-makers. This can back fire damaging trust in representative democracy.[23]

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[20] See (D. A. Lane, 2015; Sestini, 2012)

[21] So, for instance, according to a Google report "What is the EU?" was the second most searched term about the EU a few hours after the announcement of the victory of Brexit, and in the hours prior to the vote one of the top questions was "What is Brexit?". See also (Sloane, 2015; Summers, Smith, & Reczek, 2016; Viner, 2016)

[22] See (Budish, 2012; Omidyar, 2015; Shirky, 2011)

[23] For example, following the Brexit vote, an online petition for a second referendum was shared widely on social media by Remain supporters and was signed by more than 4.1 million people. It was the most-signed Government petition since the process was introduced in 2011, but was rejected by the Government, which caused further polarization between Remainers and Leavers.

At the same time, the internet and social media have helped bottom-up movements to self-organise and to communicate with the outside world through E-Activism.[24] This was the case, for example, in Spain where e-activism led to the ousting of PM José María Aznar in 2004. In Moldova, the Communist party lost power through mass protests coordinated online in 2009. And there was the role of social media in the Arab Spring in 2010-2012. Through digital feeds, citizens have been exposed to an ever-increasing number of causes and movements (Margett, John, Hale, & Yasseri, 2016) and (Flecher, 2016) in *Naked Diplomacy*. This is countered by the issue of "slacktivism - actions performed via the Internet in support of a political or social cause but regarded as requiring little time or involvement: signing an online petition or joining a campaign group on a social media website". While more people can engage, their level of engagement and knowledge is put into question (Wren, 2014). Social media can also be exploited by large political parties; for example, the successful crowdfunding campaigns of Obama in 2012.[25]

As highlighted by Uwe Combüchen (Director General of Council of European Employers of the Metal, Engineering and Technology-based industries) building democracy and trust requires going beyond party politics: "Technological change, the speed of it, digitalisation, AI, etc. all mean change. We should therefore not rush into political, let alone regulatory, decisions which would put Europe on the wrong track. We must ensure, today more than ever before, creating a framework in Europe and member states in which companies can successfully compete on an international level. Politicians and legislators have to understand and heed that, thinking beyond their mandate periods. We also have to create a better understand among all people, particularly those who feel they are or fear they will be left behind. This would also contribute to stabilising democracy in Europe. Human beings are averse to change by nature. To embrace change and seize opportunities of technological change, room to develop and even experiment is extremely important." Similarly, as highlighted in an interview with Martin Stewart-Weeks (advisor to PwC Australia on The Impact Assembly) it is a challenge for policy makers to adopt social innovation: "social innovation is a political enterprise, not a managerial one. The risk with digital innovation is that it's a technical solution. We need a political policy design to re-allocate resources. Social innovation can be judged to be a success if new flows of resources and power occur in the system. Where to start? My advice is (i) different conversations with senior policy makers (ii) start with a piece of the system and test it (iii) try something different in budget allocations (iv) have a social innovation 'executive producer' who operates like a film producer in Hollywood (a metaphor of John Kao, the American innovation writer) by convening, activating, connecting and driving for a result".

Overall, our summary of social innovation in the democracy and trust field shows key challenges and opportunities in relation to: new forms of institutional renewal; establishment of new social contracts between public institutions and citizens; new partnerships and forms of governance for public goods creation; new methods and tools to stimulate civic engagement, democratic debate, and collective creation; alternatives to rising populism and political disenfranchisement; evidence-based policy making and smart regulation; crowdsourcing and participatory decision processes; open innovation; public sector innovation; and e-governance. Overall technological innovation can profoundly transform existing political institutions and practices and is already doing it, but cannot replace them entirely. Technology has helped new groups to take power, but has not been sufficient to keep them in power.

3.2.1 Case Study: Boosting Democracy and Trust Through E-Governance (Estonia)

One example of how new technology, such as the blockchain, can help improve democracy and trust is offered by the Estonian approach to e-governance. After gaining independence from the Soviet Union in 1991, Estonia - one of the smallest nations in Europe with a population of around 1.3 million - was left with little public infrastructure and virtually no commercial activity. To address this societal need, Estonia's government invested proactively in technology to bring government services and citizens online. Eesti.ee, launched in 2003, is one of the most advanced single points of contact for e-services dedicated to citizens and businesses in Europe, bringing together most services provided by public and private bodies at local, regional and national levels into a single online portal.

The portal allows citizens to use electronic ID cards to vote, pay taxes, register companies, and access more than 1000 services online. Estonia is the only country in Europe where citizens can vote online for every type of election, from local to parliamentary. In 2015 parliamentary elections,

[24] See for instance (Farivar, 2011)

[25] According to Time magazine, the Obama campaign raised $690 million digitally in 2012, mainly in small cash donations from 4.4 million individuals. That constituted over half of the total $1.1 billion raised by the campaign, showing the power of this new method of fundraising.

over 30% of citizens voted online, up from 3.4% in 2007, leading to considerable savings for the state given that the cost of each online vote is half that of a paper vote, even factoring in the initial capital investment. In addition, citizens are totally in charge of their data: they can review the full history of inquiries about them, including police, banking and health-related inquiries and file a complaint if they do not recognise or approve of an inquiry. This is due to the early adoption of blockchain technology, as summarised by analyst Charles Brett: "data and interactions use a blockchain (from Guardtime, an Estonian company) to guarantee a record of the state of any component within the network and data stores. The implications of this are immense. It means that any unauthorized change in the state, which can be regarded as attack on accuracy, can be detected. Whether this 'attack' comes from outside or from (say) an employee on the inside, record alteration is recorded while the original remains (or is shown to have been tampered with)" (Brett, 2015). This increases security and privacy, and therefore trust between all parties. Estonia's residents can opt out of making their data accessible: in this way, the central government has empowered citizens to monitor the use that public and private actors make of their data, thereby increasing transparency and accountability.

A socially innovative aspect of the portal allowed by its distributed architecture is the public-private partnership which lies behind it: the system is used to connect with private-sector entities, particularly banks, telecom providers, and energy companies, to safely complete financial transactions or pay utility bills. This means that large companies are incentivized to invest in maintaining and upgrading the portal infrastructure. Interestingly, the portal has been used by third sector organisations to launch innovative projects: for instance, a private educational foundation has developed within the portal, the e-School website, which allows parents, students, and teachers to communicate and share information on grades and assignments. The ICT system developed by the government since 2003, called X-Road, has been designed to incorporate innovative applications, which has made it possible to constantly update the system and enrich it with new tools. The ICT system consists of a secure data-access platform connecting existing databases (both public and private) irrespective of their format. All the data remain separate and a list of FAQs is the only data X-Road maintains itself (Misuraca et al., 2016). New services and developments are created every year, with the government's catalysing innovation via calls for ideas and hackathons. For instance, after the launch of the e-Estonia initiative allowing anybody to obtain Estonian e-residency, a hackathon was organised to understand how to promote this opportunity across the world: after 48 hours, participants from 26 countries came up with 12 working prototypes targeting e-residents. The winner of the competition was start-up InstaVisa, which aimed to implement an e-Visa service to simplify the procedure for third-country nationals eager to move to Estonia after acquiring e-residency. Unfortunately, and despite Estonian government backing, the project was soon abandoned because it was not compliant with EU regulations. Overall, however, the case of Estonia's approach to e-Government illustrates how new technology, such as the blockchain,[26] can help improve democratic processes in terms of efficiency, accountability, access, and trust at the institutional level, with the potential to drive change for all citizens at the system level.

3.3 Future of Work

Rapid technological advancements, Industry 4.0, globalisation, shifting family structures, and global migration flows are radically transforming the labour market in ways not previously seen or experienced (Brynjolfsson & Mcafee, 2014), creating multiple challenges and opportunities for social innovation in the field of work.

Public, private, and third sector organisations are innovating to make job markets smarter – in the sense of more accessible, inclusive, efficient and fulfilling. On the one hand, this is a challenge for social policy, employment law, trade unions, industrial relations, education and training and health & safety at work. One way of helping to address these challenges is by using big data and Internet technologies (CEEMET). For example, in Germany the government's Employment Agency has developed the 'Labour Market Monitor' (Arbeitsmarktmonitor) - an online platform that presents and communicates labour market data (e.g. structures of the region, development of common strategies, exchange with other networks via various approaches etc.) to a network of regional labour agencies, interested organisations, and individual citizens who can use the data and upload new data for their labour market strategies, policies, and more informed decision-making. In Portugal, Netemprego was launched in 2012 as the Portuguese national web-portal for

[26] Another interesting example in this space that emerged from our research is ACT, an Ethereum blockchain based social action platform, powered by smart contracts, which facilitates a decentralized proposal curation and voting system. See https://btcoin.info/pr-act-is-ngo-2-0-bringing-power-back-to-the-people/

employment, offering 24/7 free-of-charge services to employers and job seekers with the objective of increasing speed, diversity, accessibility and quality in Portuguese Public Employment Services' (PES) delivery channels. Smarter job markets also include innovations to increase employability and employment among vulnerable or disadvantaged groups in society, such as older people, long-term unemployed, people with disabilities, and migrants. For example, Specialisterne is a successful for-profit company in Denmark that employs people with autism in software testing, saving the Danish government 49 million DKK (2008-2012) in welfare costs and generating income through taxes and pension contributions.

The sharing economy is a trend. The internet has dramatically reduced transaction costs related to trading and exchanging assets, 'making sharing assets cheaper and easier than ever - and therefore possible on a much larger scale. The big change is the availability of more data about people and things, which allows physical assets to be disaggregated and consumed as services' (The Economist, 2013). As pointed out by (Sundararajan, 2016) "the crowd has moved from simply providing ideas (open innovation) to providing actual services and products (crowd-based capitalism)". This is epitomised by companies such as TaskRabbit, Uber, and AirBnb, that have inaugurated a new platform economy[27] opening totally new income-generating opportunities[28] for citizens and new entrepreneurial opportunities, while also posing unprecedented challenges to established businesses and regulatory frameworks.[29]

Another trend is the rise of entrepreneurship and startup, whereby entrepreneurs and innovators create work for themselves (and potentially other people) by starting up and growing businesses. In terms of money, power, and global profile this trend is led by Silicon Valley, however there are a growing number of incubators and accelerators in Europe that are providing entrepreneurs with a supportive ecosystem of training, mentoring, finance, and advice such as Entrepreneur First in the UK, and Fiware Accelerate across Europe. One interesting example is Estonia with its e-residency programme which offers non-Estonians an Estonian digital identity (see 3.2.1). Participants are given a "smart-card" that gives them the opportunity to run a company online, by accessing services such as company registration, banking, payment processing, and taxation.

Across Europe, the new trend focuses on technological entrepreneurship, with increasing number of innovations in the fields of machine learning, engineering, cryptocurrency, robotics, deep learning, AI and computer vision. These developments will have profound effects on the future of work. While automation is set to boost productivity and create new job opportunities, investment in training, regulatory frameworks, infrastructure, and so on is needed to prevent the widening of inequality what would result from the automated loss of low-skill "menial" jobs (PWC 2017). It is also important to note the growing trend for social entrepreneurship, mission-led business, and impact business, which aims to combine financial returns with social and environmental sustainability goals (Ashoka; Schwab Foundation). There is also a trend for intrapreneurship, whereby employees are innovating within existing companies and organisations, moving for example from traditional CRS to embed impact in their products and services (e.g. KPMG). Ultimately the boundaries of what society means by entrepreneurship are expanding dramatically becoming more than a job. Entrepreneurship is a philosophy of life.

There is a growing realisation among all stakeholders that in order to prepare people for the future of work, they need innovative education, skills, training, and support throughout their lives. Among young learners, there is a popular trend towards learning digital skills such as computer programming at school and community clubs (e.g. CoderDojo). In schools, teachers can use ICT tools such as tablets, data platforms, online courses, and interactive technologies to improve the access and quality of their teaching for pupils and students. In universities, there is trend towards broader topics, project-based, and human-centred experiential learning, such as Theory U's Presencing Institute. However, all along the educational continuum, key skills such as critical thinking and entrepreneurship, as well as ICT and financial skills, are rarely taught. Uwe Combüchen (Director General, CEEMET) highlighted the importance of education: "Education is the new currency and the rightly skilled people are key to the take up of digitalisation across Europe. By the way, education (systems) will eventually also contribute to avoid or reduce (perceived or existing) inequalities, polarisation in societies. The concept of what we currently understand as "work" will change, the gig-economy, sharing economy, platform work etc. will need 'social innovation'." Tuukka Toivonen (UCL Institute for Global Prosperity) also highlighted this need: "The education component is key. We need to set the right questions, through courses, teaching, and at

[27] See the dedicated Insight Center set-up by the HBR
[28] See for instance (Gilmer, 2017; Weerawardena & Mort, 2006)
[29] As described by Vili Lehdonvirta from the Oxford Internet Institute in her speech on Online Platforms, Diversity and Fragmentation, available here.

secondary education level. School is traditionally confined to "receptive model", pupils are not asked to re-think ideas, they are simply told what to think and do. At school and university level we need to talk about how social change happens and how students can be an active part of that." One example is Solution 100 run by SITRA in Finland as a prize challenge offering €1m for the best educational innovations. Csaba Kucsera (former IPTS-JRC) also highlighted the need to include older people's learning: "Part of the challenge is re-designing work places – for example mobility, access - that fits the need of older workers. Inter-generational knowledge transfers can create a lot of value both ways. This has enormous potential in the workplace – for long-term and new knowledge and innovation. But we need to dismantle ageism, stereotypes, and fight exclusion." Across all ages, Massive Open Online Courses (MOOCs) are already playing a key role, as learners can access free content of their choice, anytime, anywhere, with an internet connection and computer or smart phone (e.g Coursera; MOOC List; YouTube). These online learning tools enable people to re-skill and up-skill for jobs and/or entrepreneurship. Apprenticeships also offer people opportunities to "learn on the job" (see 4.3.1). The future of education and upskilling for entrepreneurship will be extended well beyond the usual formal education life and the boundaries of formal education delivered by certified institutions.

Overall, the aims of these innovations are to deal with the disruptions to the labour market caused by technological revolutions and changing socio-demographic conditions, and enable people to take advantage of new work opportunities rather than being trapped in precarious, unfulfilling, or exploitative work.

3.3.1 Case Study: Apprenticeships for Accelerated Careers (UK)

In the UK, due to the high costs of university education combined with a competitive and rapidly changing labour market, there is a growing demand from policymakers and employers to devise cost effective solutions to finding and retaining talented workers on the one hand, and from young learners to gain "on the job" training, experience, and career opportunities on the other.

To try and help meet these needs, in April 2017 the UK government introduced the Apprenticeship Levy. The levy affects all employers with a presence in the UK, from businesses to charities to schools, regardless of sector, with an annual pay bill of more than £3 million. The levy operates as an additional payroll tax, set at 0.5% of an employer's annual pay bill and collected through the government's existing Pay As You Earn (PAYE) scheme. The levy allowance operates on a monthly basis and accumulates throughout the year. The total levy amount is collected monthly by Her Majesty Revenue and Customs, and the funding is then made available to employers via a digital account, through which they can pay for training for apprentices with an approved training provider. The government applies a 10% top-up to each levy account for spending on apprenticeship training in England. If an employer does not spend their entire levy amount on apprenticeships, then the unspent portion is made available to other employers to spend on apprenticeships.

For companies to spend the funds in their digital account, they can choose from 2 different types of apprenticeships: (i) Apprenticeship Standards cover a specific occupation and sets out the core skills, knowledge and behaviours an apprentice will need; they are developed by employer groups known as 'trailblazers'; (ii) Apprenticeship Frameworks are a series of work-related vocational and professional qualifications, with workplace and classroom-based training. Companies can use the gov.uk platform to find apprenticeship training services from approved providers, and companies agree a total price for each apprenticeship, which includes the costs of training and assessment.

One example of an approved service provider is WhiteHat who build a digital profile for each apprentice (video, personality profile, key strengths) to use instead of a CV to match apprentices with work opportunities. They provide 20% off-the-job training to apprentices via their online platform, while the remaining 80% training is on-the-job. Companies pay the apprentices directly, and pay WhiteHat a fee for the matching service, which can be offset from the company's levy account. Overall, the Apprenticeship model in the UK provides a good example of driving system change to provide younger learners with opportunities to improve their work and career trajectories that benefit them and the companies that employ them in the medium to longer-term.

3.4 Internet Technologies and Online/Offline Interactions

Internet technologies are fundamentally affecting all the main trends in social innovation, as discussed in other sections of this chapter. However, in this section we highlight that internet technologies are not only having a profound effect on existing social structures, but they are going a step further by creating entirely new ways of interacting, socializing, communicating, consuming, sharing, and living our lives off line – what we refer to with the term "onlife" – which poses unique challenges and opportunities for social innovation.

As recently highlighted by the Commission's OnLife Initiative Background document, we are already living in the ubiquitous computing era. This digital transition is changing our way of understanding reality in four ways (1) by blurring the distinction between reality and virtuality; (2) by blurring the distinctions between human, machine and nature; (3) by reversing from scarcity to abundance, when it comes to information; and (4) by shifting from the primacy of entities over interactions to the primacy of interactions over entities" (European Commission, 2016a).

In this onlife, people's attention is the new currency in the 'attention economy' (Hogan, 2001). With the next generation of internet technologies already in development such as the Internet of Things, Artificial Intelligence,[30] and Virtual Reality,[31] onlife is only expected to grow. Right now for example, Elon Musk's latest project Neuralink is developing ultra-high bandwidth brain-machine interfaces to connect humans and computers (see Wait But Why, 2017) – if they succeed we could in theory all have a silicon brain implant that connects us wirelessly to a global cloud and each other's brains, which we control by thinking. It is not surprising then that a recent research on the Next Generation Internet analysed global social media networks and found that the overarching sentiment associated with the future of the Internet is "nervousness" (Lipparini & Romeo, 2017). As highlighted in the interview with Martin Stewart-Weeks (advisor to PwC Australia on The Impact Assembly), "there is a growing fascination with the opportunity to use digital and technical solutions at the service of social change and impact. The challenge is making them social innovations, not just technical. In the end, data and evidence is needed to see if social innovation is working well or not."

At the level of European policy, the European Commission's "On-Life" Expert Group highlights that the "right to focus our attention" should be further considered and protected, as it is "a critical and necessary condition for autonomy, responsibility, reflexivity, plurality, engaged presence, and a sense of meaning" (European Commission, 2016b). Policy-makers are beginning to reflect on the issue, as demonstrated by the recent debate in Italy on the Internet Bill of Right (Camera dei Deputati, 2015) and the French Law granting employees the right to disconnect outside office hours.[32] No need to mention the endless list of controversies related to Uber and the other digital platform companies. And the market is also responding – for example the app Hold has been developed by 3 students in Norway to reward students for not using their phone, which has achieved a 25% adoption rate in Norway schools and has improved grades by up to 30%.

In the onlife world, the availability of high-speed broadband Internet and access to digital service infrastructures is essential as internet technologies become key to deliver both private and public services. In Europe, the Commission is committed to digital infrastructure building under the Connecting Europe Facility to meet the Digital Agenda's goals for all European households to have broadband by 2020. This is complemented by the EC's Connectivity Package launched in September 2016 to accelerate investments for public access to wifi, together with a new European Electronic Communications Code that is forecast to create 1.3 million jobs by 2025 and to boost our GDP by an additional €910 billion by 2025, with an Action Plan presented to bring 5G across the continent as from 2018. In addition, the WiFi4EU Initiative, aims at helping European communities offer free Wi-Fi access points to any citizen.

Investing in very high capacity networks is key to unlocking the social and economic potential of internet technologies. This links to the principle of Net Neutrality, whereby data communications over a network are all processed in the same way regardless of sender, receiver, application or content, which has so far been at the basis of the internet. By 2017, it is estimated that more than half of the world's internet traffic will pass through a Content Delivery Network" (European Parliament, 2014). This makes net-neutrality a huge challenge for the future. Current legislation in Europe states that a minimum level of service must be guaranteed if public internet access becomes too degraded because specialised services take-up too much bandwidth. If this is to be maintained in the long-term then it must be backed up by infrastructure upgrades to ensure that everyone has equal access to reliable, fast, and secure Internet services.

Overall, internet technologies and onlife look set to grow. Shaping onlife for public good is key for politics : harnessing the potential of internet technologies to address and overcome a broad set of socio-economic challenges; digital engagement, inclusion, and literacy; investing and catalysing investment in promising areas of technological development for social innovation; adjusting social

[30] See for example Google's DeepMind, Siri, and Now; IBM's Watson; Amazon's Echo; and Elon Musk's OpenAI and Tesla.

[31] Facebook has Oculus Virtual Reality (acquired for $2 billion in 2014); Google has Daydream; Microsoft has Hololens; HTC has Vive; Samsung has Gear VR (powered by Oculus); while other tech leaders in the field are Magic Leap and Meta.

[32] See for instance (Pacific Community Ventures, 2016)

protection systems to the ongoing technological revolution; increasing small businesses' and civil society organisations' ability to benefit from internet technologies; striking a fair balance between right to access information and freedom of speech; data security, cyber security, regulation, and data protection; access to fast broadband; values, trust, and governance in the online world. These are the main challenges to be addressed at the EU policy level.

3.4.1 Case Study: Artificial Intelligence (AI)

Artificial Intelligence (AI) refers to "a constellation of technologies including machine learning, perception, reasoning, and natural language processing" (Crawford & Whittaker, 2016). While the field has been developing for over 65 years, the potential impact of AI in relation to internet technologies and onlife is wide-ranging, and could create entirely new opportunities or challenges for our social, economic, and interpersonal lives.

While extreme futurist scenarios such as "singularity", "total disruption", and "machines that fully understand humans" make for flashy headlines and popular science fiction, they are far from the current reality, and we do not know what the future holds for AI. What is clear is that AI technologies are progressing, particularly in the field of machine learning (Brownlee, 2016). As Forbes highlighted in its 'Top 10 AI and Machine Learning Use Cases Everyone Should Know About' (September 2016), machine learning is already being applied for multiple socio-economic purposes including data security, personal security, financial trading, healthcare, marketing personalization, fraud detection, consumer recommendations, online searching, natural language processing, and smart cars. Where there is potential economic value then the market responds, and this seems to be the case with AI and machine learning, as all the tech giants are investing in new AI-driven technologies, products, and services, such as Google's DeepMind, Siri, and Now; IBM's Watson; Amazon's Echo; and Elon Musk's OpenAI and Tesla.

European companies and research centres are also working at the forefront of AI systems. The FET initiative on computational creativity funded for instance projects CoInvent, ConCreTe, Lrn2Cre8, WHIM, and the Coordination Action PROSECCO. They came up with creative systems for composing music, formulating mathematical hypothesis, and the What-IF Machine created stories, jokes, films, paintings and advertisements. Many questions remain unanswered, but this initiative has created a new research agenda that contrasts with the classical view on AI, which is to solve problems, with a new and potentially more interesting view, namely that the real intelligence is to invent the right questions. In order to achieve "fairness, accountability, and transparency in machine learning" (FAT/ML), we need to ask the right questions and seek well-informed answers, such as: What data were used to train the algorithms? Is the dataset secure? Have other algorithms been trained on the same data and/or have other datasets been used to train the same algorithms? What made you decide this is the right data, the right hypotheses space, the right type of algorithm? Can we check whether the output is consistent?

There is a growing focus among leading researchers, advocates, regulators, and policy makers on how we can better understand the *social* impacts, risks, and opportunities posed by AI. At the level of European policy, see for example the EC's On-Life Expert Group (European Commission 2016b, quoted above), and the EC's work on 'the future of robotics and artificial intelligence in Europe' (February 2017) including policy work, strategy, and publications such as Building a European Data Economy, Digital Jobs and Skills Coalition, and setting up a €2.8billion public-private partnership for robotics and AI in Europe (SPARC).

Overall, leading research on the social impacts of AI, for example by AI Now, Nesta, and FAT/ML, highlights multiple and overlapping themes that need to be addressed for a more equitable future with AI including issues of rights and liberties, labour and automation, bias and inclusion, and safety of critical infrastructure.

3.5 New Financial Instruments

"Capitalism has not kept pace with evolving societal needs, leaving more and more of the world's population behind with respect to wealth creation and prosperity. It may be time for a change." (McKinsey 2017)

Social innovation is fundamentally changing finance processes and outcomes. The most relevant trend in new finance and social innovation is the growth of **impact investing (also referred to as social finance**), which has developed over the last decade driven by investments into companies, organisations, and funds with the intention to generate social and environmental impact alongside financial return (GIIN 2017). Total impact investments have grown from $4.3billion in 2011 to $60billion in 2015 (GIIN, ibid), with investments creating a new paradigm that focuses on responsible, sustainable, thematic, or impact-first investments, in contrast to the

traditional finance-only vs impact-only philanthropy. As remarked by Sir Ronald Cohen in our interview, "the trend of impact investment is here to stay. The impact investing world is characterised by the need to assess and optimise risks and returns not only in financial terms, but from the point of view of social impact too: within 30 years, everybody will be optimising the three dimensions of risk, return, and impact. This is due to several reasons. Firstly, the Millennials who drove the tech revolution are now searching for greater meaning than just making money, this is leading the new generation to pursue impact creation as they work and create ventures. Secondly, investors are also driving this change. Institutional investors such as development banks and pension funds, which can mobilise huge amount of funds, as well as local authorities, private foundations and, of course impact investors are increasingly looking for opportunities to create impact alongside financial returns, often under the pressure of consumers and shareholders. Finally, it is clear that the public sector, on its own, can no longer cope with funding all public goods and services, meaning that an increasingly diverse set of incentives – from the 90/10 French legislation on retirement savings, to the 2% CSR Indian tax on companies' revenues, to the British Social Value Act or dormant accounts bill, are being put in place by governments around the world to attract private capital."

The **Social Impact Bond (SIB**) is one flagship project in the impact investing field. SIBs were conceived to raise private investment to finance innovative solutions, relieving government from upfront costs and risks except for the commitment to pay for predetermined and quantifiable impact ("success") that is independently assessed. The first SIB was launched in 2010 in the UK – Peterborough Social Impact Bond (PSIB), which raised £5m from private investors to reduce re-offending rates among short-sentenced prisoners leaving Peterborough Prison. The final results of PSIB were realised in July 2017: targets have been met, investors re-paid, and government has adopted and mainstreamed the new service (Anders & Dorsett, 2017). Today, there are over 89 SIBs around the world with a total value of around £300m. As of June 2017, The European Investment Fund (EIF), Epiqus (a fund manager dedicated to investments with a social impact), and the Finnish Ministry of Economic Affairs and Employment have announced a new SIB scheme, the first of its kind in Europe, to support the integration of c.3000 migrants and refugees into the Finnish labour market (European Commission, 2017). However, as highlighted during our interview by Indy Johar (CEO, Dark Matter), social innovation needs more investment: "the scale of capital for social innovation is out of kilter. For example, the UK welfare budget is £300 billion, yet the social investment fund is only £400 million. We need billions in investments to transform existing institutional infrastructure". Johar suggests that what is required is a shift in thinking: "if you shift the paradigm in thinking about humans not as the instrument but as the source of economic development, then welfare is perceived as an investment, not a cost. This can fundamentally change the conversation, thinking and action around Social Innovation and drive change in the system."

The case of Portugal Social Innovation helps to illustrate how government can lead this process at the ecosystem level. Portugal Social Innovation was launched in 2015 – aiming to catalyse a social investment market in Portugal, consolidate the social entrepreneurship and innovation eco-system in the country. Our interview with Filipe Santos highlights some of the key elements of the initiative: "It was valuable to have a cohesion policy programme dedicated to social innovation: a dedicated team, agenda, mechanism, visibility, a minister backing it. In Portugal, public funding was used to catalyse private action and resources as in the case of an outcome payment mechanism for SIBs and a venture philanthropy matching scheme (30% private 70% public) with 7M euros already allocated." At the same time, Santos highlighted some constraints with the financing that need to be improved: "European and national bureaucracy is a problem especially for small projects which are typically the ones in the social innovation space. Another issue to address is the long deployment time-frame, especially at the beginning of the new cycle of Cohesion Policy and with a new programme: it took two years to get the money out instead of a year as planned, although the issue is not an issue just for social innovation but across national programmes funded by the European Union in each seven year funding cycle."

Another key trend in new finance is **impact funds**, which are increasing in number and fund size. In Europe, Social Impact Accelerator - the European equivalent of Big Society Capital - was launched in 2015 by the European Investment Bank (EIB) and is currently managed by the European Investment Fund (EIF). Juncker's Investment Plan for Europe (2014) and related European Fund for Strategic Infrastructures (EFSI) aims to further mobilize €315bn in public and private investments for infrastructure renewal, including social infrastructure. Other large scale public sector organisations are developing their own impact funds, such as Unicef's Innovation Fund and the UNDP's social impact fund; while the Red Cross has launched the world's first Humanitarian Impact Bond. However, itis evident that Europe is still too slow in embracing impact investing, still punching well below its weight. While several 1bn dollars and over impact funds have been launched in the US – including the 1 billion impact fund launched by the Ford Foundation -, followed by Japan and India, this scale of commitment is far from materializing in Europe - both in the public and private sectors - despite the abundance of means and demand for

new financial instruments to tackle grand challenges like mass migration, climate change and reskilling or upskilling of unemployed or underemployed workers.

In the private sector, impact funds are also gaining more attention, in order to fill growing demands from individuals and enterprises for social/environmental impact balanced against financial returns – see for example Fifty VC and Khosla Ventures to give just two examples among many others.[33] In this realm, it is also worth mentioning innovation vouchers, such as those in the UK and Ireland that provide funding (e.g. £2500-£5000) for SMEs to research and develop a process, product or service, test innovation ideas, or collaborate with other organisations (e.g. Invest NI, Innovate UK). Certainly, there is a greater need to invest in specialised intermediaries and funding streams to build their capacity and scaffolding for the ecosystem like, for instance, the Access Foundation in the UK.

In the sphere of peer-to-peer impact investing, we see also a rise in **crowdfunding,** characterised by online platforms such as Kickstarter and Kiva (for business projects) and SpaceHive (for community projects), as well as challenge prizes such as XPrize and Nesta Challenge Prize Centre). Going a step further, we are also seeing the rise of cryptocurrencies built on blockchain's distributed ledger technologies – such as Bitcoin, Ethereum, Ripple, and Litecoint that make up the rapidly growing (and fluctuating) multibillion dollar cryptocurrency markets. The role of cryptocurrencies in the future global economy – whether fad or fundamental - remains to be seen, but the growing market is clearly a new finance innovation driven by our technological revolution. And the potential impact is highly significant (Tapscott & Tapscott, 2016). The internet allows like-minded people to fund a wide range of for-profit business ventures as well as community-oriented social entrepreneurship projects through crowdfunding. However, it also poses some questions: for instance, is there a difference between what is promised and what consumers receive? Who is accountable for this "free" money? What happens when the trust is broken?[34]

Within the impact investing sector, the achievement of both social impact and market-rate financial returns cannot be taken for granted, and some argue it is still the exception rather than the norm of "marginalised returns" (SSIR 2017). However, many examples exist of impact funds successfully delivering 10-15% returns. According to Sir Ronald Cohen, the next big thing in the impact investment world will be **Outcome Payments Funds**. A 1bn Outcome Payments Fund is to be set-up in India. A professionally managed fund is in the process of being established, capitalised with the money coming from corporate foundations: of which 5-10%, or 50/100m dollars would be invested by the government, while the rest will flow from the CSR obligation to invest 2% of profits in philanthropy. The fund will sign contracts with social impact bond intermediaries who will focus on entrepreneurs working in the education and training domain, with a view to reduce drop-out rates and improve student attainment levels. The Education Commission is moving forward in parallel, working to establish an Outcome Payments Fund in Africa and the Middle East. Several other conversations are on-going, including a 600m OPF to tackle cholera transmission in Haiti. In the area of integration of refugees, where the conversation in Europe is focusing today, there is already a 13.5m SIB in Massachusetts to integrate new immigrants into the workforce. Here the outcome based model seems particularly interesting, since what will be measured to determine success is not the immigrants' employment rates, but the increase in their salaries over time, which is a better indicator of their degree of integration into the economy and society. Traditionally, this kind of initiative would have relied on government grants and donations targeting employers, with little attention to the social outcomes for the migrants. Now instead beneficiaries and their long-term well-being is really at the core of the model.

Indeed, as the impact investing sector grows, we will need to continually update our accounting and assessment practices.[35] More work is required to broaden and deepen our understandings of "returns on investment" beyond financial into social and environmental returns. In our view, impact assessment should focus on a company's or investment's ability to create sustainable impact for all stakeholders within their community or (eco)system.

Technology could play a key role, with next generation Internet initiatives (e.g. Blockchain, big data, IoT) providing new understandings of trust, risk, and pricing (see for example EngagedX's work with the UNSIF). As it evolves, impact measurement could incentivise public goods provision, subsidies, responsible consumption and production, and much more. For the impact economy to be increasingly viable, it must value those who commit the resources to measure it, while expanding the concept of 'value' beyond financial returns to include social and environmental outcomes. A

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[33] See for example (Kehl & Then, 2013)

[34] This is what happened to Ethereum and its digital currency – second only to bitcoin – which suffered a blow in June 2016 after a hacker stole $64 million worth of ether from investors.

[35] See SSIR 2016 ; CCEG and (European Commission, 2017b)

new trend within capitalism is emerging calling for its transformation, moving beyond the narrow perspective of *hic et nunc* profit maximisation – see for example (Jacobs & Mazzucato, 2015). This is certainly a moral call amongst new generations – starting with the Millennials[36] – but also a consequence of the global financial crisis started in 2008, and mounting evidence on the gaps in traditional welfare systems and on liabilities of climate change.

As pinpointed by Sir Ronald, the vision for the future demands the EU to direct part of this innovation effort, and the right start would be to establish one or more 1billion Outcome Payment Fund. This could target migrants, unemployed youth, or reskilling and raising educational levels of the ageing workforce, just to name a few societal challenges. This should be part of EU Industrial Policies: "Let's direct capital to underinvested areas, let's measure where it is going (infrastructure, SMEs etc) but let's also work on the social issues which can accelerate growth, while we direct money to regions, let's also direct impact funds to reskilling of people living in those regions and being out of work. Unemployed miners won't find a job because you are sending money to the region, you need to re-skill them and give them access to other sectors. Impact investment also addresses the social issues which constraint development and could accelerate it. Scale is fundamental: the profit with purpose sector is beginning to run. Think about Tesla. The social sector is on the way too. Think at the development social impact bonds world, it is happening and this is beginning to change the perception of social sector organisations. When it was so difficult to raise money, you had less entrepreneurs. Same as for venture capital. Now that the real money is available they are coming. The problem is always to set-up the fund, then raising investment is relatively easy. Of course, there will be a period of transition, a 1 billion fund will take a while to work at full speed, and it might take a while to find the right delivery organisations, but then it really is like a chain reaction: if we aim at 1bn funds, then finance will flow from different sources, and we will soon have trillions of investors' money directed towards social innovation".

3.5.1 Case Study: Impact Investing for Treviso public hospital (Italy)

Social infrastructures in the form of hospitals, schools, housing, community centres, sports facilities, roads and so on are physical assets that are fundamental to providing people with the social services that they need throughout their lives. With rising populations and declining public budgets, the pressure on social infrastructures is growing. The question is who is able and willing to pay for more and better social infrastructures: should it be public institutions, private organisations, or a combination of both? The case of Treviso public hospital in Italy provides a unique case study to help address this systemic issue, whereby an innovative Public Private Partnership (PPP) at the institutional level has impact finance embedded within it, helping to make the new hospital an investment in Treviso's local community of people and enterprises, rather than simply a financial cost.

Treviso is a wealthy small town in Veneto (North East of Italy) and an industrial hub hosting international brands like Benetton and Geox. Investing in its social infrastructures is strategic for keeping its competitive advantage internationally. The hospital serves all the community in the province of Treviso, which has a population of up to 1m people after the recent restructuring of the regional NHS service. Treviso is the main hospital in the province offering specialist services. To renew and upgrade the hospital, Treviso Public Authority (the Hospital Trust) issued a tender for a 21-year concession contract to upgrade and manage the 1,000-bed hospital, with the aim of being a model hospital for the whole health service in the region. In December 2015, the concession contract was awarded to Ospedal Grando (OG), a Special Purpose Vehicle led by Lendlease – an Australian multinational corporation specialised in urban renewal - together with other financial and industrial partners.[37] The PPP is the first case in Italy where the leader and majority shareholder is a pure developer and investor, not a constructor – an element that explains the attention for innovative financial instruments hence impact investing.

In July 2017, the project for the renewal of Treviso Hospital received confirmation of a €29 million loan from the European Investment Bank (EIB), under the European Fund for Strategic

[36] The Economist Intelligence Unit (2016)

[37] OG is a company limited by shares registered in Italy and 80% owned by Finanza e Progetti of which Lendlease holds a 50% share. The other 50% is owned by Servizi Italia, industrial partner which provides laundry and sterilization services for hospitals. The other 20% ownership of OG is held by several industrial partners: SIRAM (10%); Carron Italy (2.5%); Bilfinger SE (2.5%); Tecnologie Sanitarie (2.5%). The Construction subsidiary of Lendlease Construction also has 2.5% shares.

Infrastructure.[38] As well as supporting the design, construction, and operation of the new hospital, the collaboration with EIB made the social impact investing strategy possible because the European bank lends at the lowest rate in the market, significantly reducing the cost of lending compared to any other commercial bank. OG saves 90 basis points (- 0.9%) on the interest cost of the debt - compared to the market price made by UniCredit, the leading arranging bank, and shared by Intesa Sanpaolo and Banca Prossima, the other commercial banks in the club deal. At the financial signing on July 2017, OG has realized 1.8m euros in total savings thanks to EIB loan. Significantly, 100% of these savings are committed to capitalise a new impact fund – Ospedal Grando Impact Investing (OGII) – established to invest in entrepreneurial and financial initiatives that combine both financial and social value creation. That will support initiatives that expand the services of the hospital and opportunities in the local community. If the investment phase works, it will generate a sustained positive feedback that will induce further investments in OGII, more capital for enterprises, more jobs, better services for the community and a greater commitment from community stakeholders in sustaining the positive cycle. This would be a new frontier for sustainability and resilience. Certainly, we expect Lendlease to replicate the model tested in Treviso in other and larger projects,

At institutional level, the partnership with EIB has become a validation of the social impact investing strategy vis-à-vis the other banks and the public sector. The Juncker Plan, for the first time, included an explicit 'societal impact assessment' in the investment policy criteria of the EIB (Lipparini, Fiorenza; Seva Phillips, 2015a) and the bank has acknowledged that the project in Treviso is the first funded by the bank with an explicit commitment to use derived benefits for social impact investing (EIB 2017). Adopting this model for EIB funded PPPs would generate millions in fresh capital to support social innovation across Europe, and the same model could be adopted also by national development banks, bringing impact investing at the core of project financing for social infrastructure in Europe and the rest of the world at the system level.

3.6 Urban Renewal

Urban places and spaces – especially cities - are important proxies for the global system, acting as mini complex systems within themselves. Urban renewal and the development of cities towards both social and environmental sustainability is a topic of shared interest amongst leaders of all sectors from all over the world. Since 2014, more than 50% of the world's population live in cities (Department of Economic and Social Affairs. Population Division., 2017) and the percentage is due to increase over the next decades. Cities are the main source of economic growth and innovation, but also the scene of increasing social challenges such as poverty and inequality, to which public services and infrastructures - in their current form of financing and operating - struggle to respond to effectively. Social progress cannot stop, but its enhancement requires radically new solutions that force all stakeholders to review familiar paths and boundaries. As highlighted in the interview with Tuukka Toivonen (UCL Institute for Global Prosperity): "Social Innovation (SI) is not only within one domain, but a pathway to a "new economic paradigm". It is aligned to complex social reality, processes, and outcomes. We are seeing this for example in the sphere of urban sustainability, as a microcosm of this new paradigm".

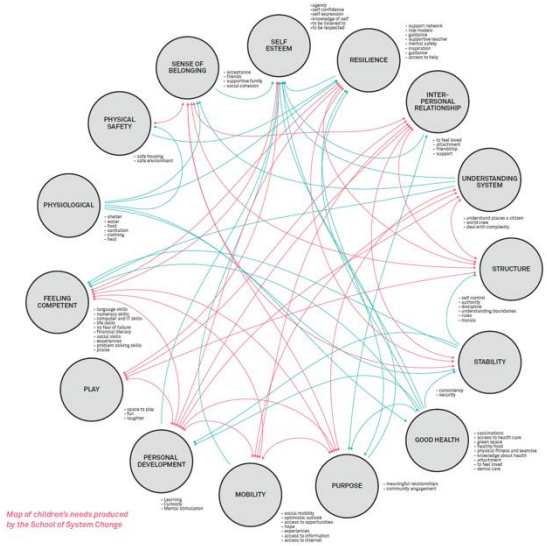
Building smart sustainable cities for the future is a big challenge. As the government in India's commitment to a smart cities agenda points out, it's about providing all citizens with: water, electricity, sanitation, public transport; housing, IT connectivity, good governance (especially e-government and citizen participation), sustainable environment, safety and security of citizens, health, and education. Visionary organisations like the Rockefeller Foundation and Bloomberg Philanthropists are working on the challenge and committing resources towards this goal – for example Rockefeller's 100 Resilient Cities and Bloomberg's American Cities Initiative. Google has Sidewalk Labs that "imagines, designs, tests, and builds urban innovations to help cities meet their biggest challenges". Public Institutions have been developing new programmes and approaches like the European Capital Innovation Prize sponsored by the European Commission; and the Future Cities Catapult, a UK government supported centre for the advancement of smart cities that works on the three main drivers for cities: strong economy, quality of life, and reducing resource consumption.

Large and small cities are creating new roles in administration and partnerships with other sectors to rise to the challenge. For example in the UK, Haringey Council (public sector) has committed to a 50/50 joint venture partnership with the multinational LendLease (private sector) for a comprehensive physical and social urban renewal programme across the borough, worth an

[38] See the EIB press release for the project: http://www.eib.org/infocentre/press/releases/all/2017/2017-215-juncker-plan-eib-finances-better-healthcare-in-the-veneto-region.htm

estimated £4bn in its first phase. Another example, Block by Block is an innovative partnership between Mojang (videogames company) and UN-Habitat that uses Minecraft as a community participation tool in urban design in developing countries, engaging communities in the design of the public spaces which they use. Flagship urban renewal projects like New York's High Line and Bilbao's Guggenheim Museum have shown how investment in specific community-focused infrastructure can create value for the city and region. Increasingly, cities are also using digital infrastructure to boost citizen engagement, for example Epic Brum's community engagement campaign that used the crowdfunding platform Kickstarter to help raise start-up capital to launch Impact Hub Birmingham; and Rotterdam's crowdfunded Luchtsingel pedestrian bridge that has triggered economic growth in the whole city.

As the technological revolution deepens and the next generation of internet technologies become more pervasive, there are big opportunities to make cities smarter – for example through 'open programme cities' tested in Bristol; and Urban-X that accelerates start-ups using AI to reengineer cities. The transformation of the growth model of cities is not only a priority for policy-makers and philanthropists. Business and financial markets must join to lead the endeavour as well. This is a necessity that has come to be recognized in corporate circles and business schools. Public procurement and Public Private Partnership (PPP) offered a unique opportunity given the scale of the investments they require. Sonal Shah (former Director of White House Social Innovation Center) flagged one of the most interesting examples of PPP that aligns private infrastructure investment and socio-economic outcomes: the government of New Zealand has commissioned a private contractor to design, finance, build and manage the Auckland South Correctional Facility. The contract is pegged to the success in the rehabilitation of offenders. Maximising public interest is the incentive of the contractor to maximise revenues. This is payment by results at the urban scale that could be replicated in other public services. Mario Calderini (Politecnico of Milan) makes a critical point: "The very concept of social infrastructure demands a radical overhaul of what is value in urban regeneration. In the current interpretation – especially in case of PPP and project finance - "social" is the mere effect that the real estate development generates in the community as a function of the infrastructure. We should turn this round and look at the value of financial investment in the real estate. The real value is generated by the social purpose that infrastructure projects perform for the community and justify urban regeneration. Such a shift in value assessment of regeneration and infrastructure projects should be reflected in public accounting rules and management practice".



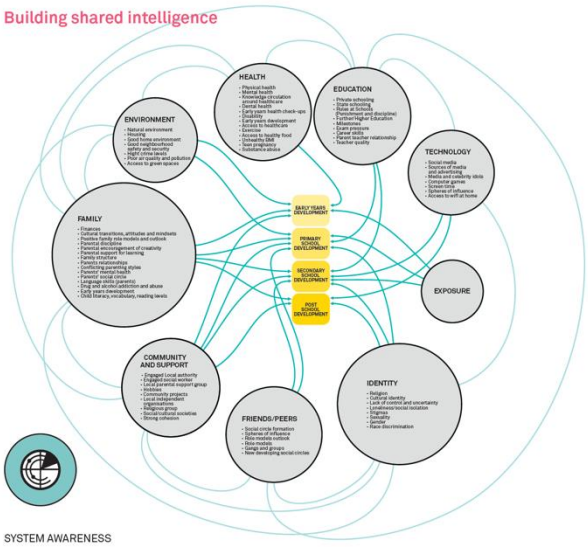
3.6.1 Case Study: System Change in London Borough of Camden (UK)

Camden is a mix of wealth and poverty. Life expectancy varies by up to thirteen years across the borough. In 2011, the murder of a youth by his peers in broad daylight prompted soul searching about what was not working for young people in Camden. The Winch, a local organisation which has worked with children for over 40 years commissioned a research report which led to the discovery of "a piecemeal approach which funded targeted activities and project outcomes, but ultimately a dysfunctional, self-serving, and siloed system" (Dark Matter Laboratories, 2017). Based on this study, a broad range of stakeholders came together with the objective of providing to North-Camden youth the best environment in which to grow-up.

In 2014 the first children's' zone in the UK was established – the North Camden Zone. Inspired by the Harlem model the approach was about establishing the conditions for change around a shared mission:

"This is not about a centrally directed programme but about building collective capacity for driving change in a distributed and open, yet measurable and mutually accountable manner. The components therefore fall under three main headings: building shared intelligence, in order to create the impetus for a different approach; structuring shared incentives, in order to enable organisations to act on this new perspective; and building shared foundations, in order to sustain impact movements in the long term". (Dark Matter Laboratories, 2017)

Building shared intelligence means engaging stakeholders and individuals in the process of defining the issues preventing them from achieving certain desired outcomes in their mutual relationships. It is about building awareness about the complexity of the challenges to be faced and refining a sense of purpose and a compelling shared mission. This also means taking stock of the assets, skills, expertise and needs of individuals and organisations operating in that given space, building a shared language and co-developing shared metrics to define progress against shared objectives. Of course, the system mapping process needs to be "an open-ended process where all involved commit to discovering, prototyping, iterating, and learning together" (Dark Matter Laboratories, 2017).



Building shared incentives means moving from recognising certain issues and needs to coordinate a broad range of stakeholders and individuals to achieve positive change. This also means working on new ways to account and fund change. Finally, it is important to build shared foundations: a mix of physical and virtual infrastructure to maintain and grow the system impact movement over time. Of course, building impact movements take time, and the process is far from linear. As highlighted by (Dark Matter Laboratories, 2017): "We do not yet have a culture of system awareness. It is one thing to state that societal challenges are complex problems, with various plausible solutions and many stakeholders; it is quite another to build a genuinely shared collective awareness, across different organisations and individuals, around the full complexity of an issue, different leverage points, and the differentiated roles of all involved. This inability to communicate the scope of systems change efforts at an individual level risks alienating people and handicapping our work. The lack of system awareness and a shared language for systems change is currently creating misalignment between actors that otherwise share the same mission". Communication is key to achieve impact, especially systemic change, which requires people from all backgrounds and sectors to collaborate around a shared mission. Another problem is the culture of planning: we need to move from a "act first, think later" mindset to a "patient" approach: this is true for frontline organisations as well as for policy-makers. Change is complex and requires a lot of background work before showing results, which might prove extremely risky and unpopular.

3.7 Global Interdependency

Global flows of information, people, capital, and resources are increasing in quantity, frequency, and direction every day. What happens in one part of the world is more interconnected to other people and places around the world than ever before. While the trends covered in previous sections all overlap with the theme of global interdependency, this section highlights several additional trends that are globally inter-dependent by their nature, and therefore require specific attention in the field of social innovation.

The first big trend to consider in the global interdependency field is climate change. As of September 2017, 195 members of the United Nations Framework Convention on Climate Change have signed the Paris Climate Agreement (first signed in April 2016), the world's first comprehensive climate agreement that aims to (i) limit global average temperature rise to well below 2°C, to significantly reduce the risks and impacts of climate change; (ii) increase global capabilities to adapt to impacts of climate change, increase resilience, and low greenhouse gas emissions development, in a way that doesn't threaten food production; (iii) increase finance for low greenhouse gas emissions and climate-resilient development.

In order to achieve this in reality, the circular economy has a big role to play – a regenerative system in which resource inputs and waste, emission, and energy leakage are minimized by slowing, closing, and narrowing material and energy loops (Pearce & Turner, 1990). Innovative institutions are working to accelerate the transition to a circular economy, such as the Ellen MacArthur Foundation that works with business, government and academia "to build a framework for an economy that is restorative and regenerative by design". Estimates are that re-using old products, eliminating waste and improving recycling could add £60 billion to the global economy, yet many businesses do not have an end-of-life plan for their products (The Guardian, Nov 2014). Some of the leading innovation start-ups in the circular economy space include: Looptworks that upcycles or re-purposes abandoned, pre-consumer and post-consumer materials into limited edition products; Thread that transforms discarded plastic bottles into "responsible fabric" used in

consumer products; LanzaTech that converts carbon-rich waste into fuel and chemical products; and Method that uses all recyclable materials, energy, and cradle-to-cradle certification. Among big corporations, Elon Musk's Tesla is building electric cars with the aim of accelerating the advent of clean transport and energy production; Dell's 2020 Legacy of Good Plan wants to use 23m kg of recycled materials; Levi Strauss collects old clothes and shoes for repurposing and recycling; Timbaland has teamed up with Omni to recycle tires into footwear; and Energizer's EcoAdvance is the first battery to use recycled batteries. Researchers are also working on system change in an increasingly inter-dependent world, see for example the Sustainability Transitions Research Network.

There is also growing engagement in the Green Economy, with the aim of transitioning to a sustainable world economy as illustrated for example by United Nation Environmental Programme's Green Economy and Green Economy Coalition. In the UK for example, the government has set up a Green Finance Taskforce to assist the UK's shift to low-carbon economy and be led by investors and leading figures in the city (The Guardian, Sept 2017). Finance is taking its share driving green bonds as capital supply for companies aligned with the agenda. What distinguishes the green economy is the direct valuation of natural capital and ecological services as having economic value and a full cost accounting system whereby costs externalized onto society via ecosystems are tracked and accounted for as liabilities. Green Stickers and Ecolabels for example have emerged at consumer level to drive demand for green products and services. While there are ongoing debates as to whether price mechanisms should be used to protect nature, it seems clear that the environmental costs of socio-economic processes cannot be ignored.

The growth of Internet technologies such as online platforms and apps are having a big role to play in re-shaping people's engagement and perspective on "other" people's problems in an increasingly inter-connected world, as illustrated for example in the finance sector by the success of Kiva as a peer-to-peer lending platform to help entrepreneurs around the world, which has lent $1 billion through 1.6 million lenders and 2.5 million borrowers, with an average of $2.5m lent every week; or Mobilearn in Sweden that supports rapid integration and settlement of migrants, as shown in the case study below. Migration as the movement of people from one place to another is a key trend in our increasingly inter-dependent world. As the numbers of international refugees and asylum seekers increase there is a challenge for Europe. As stated by Commission's Vice President Federica Mogherini: "It is about managing one of the most complex, structural phenomena of our times, not a temporary emergency". Management requires data, and European institutions needs to continually map where people are 'moving, ageing, and finding work' as highlighted for example by Eurostat's Regional Yearbook 2017. The more we understand what is happening, the better we can deploy "problem-solving solutions" in the shorter-term (see for example Airbnb's Open Homes providing temporary shelter for refugees), while trying to tackle the underlying structural imbalances in the global system over the long-term.

Overall, global interdependencies pose significant challenges and opportunities for social innovation including new relationships between public and private sectors and society to increase competitiveness and inclusion; peer-to-peer networks; responsible consumption; reductions in CO2 emissions and low carbon economies; recycling and the circular economy; and new ways to induce a greater sense of individual and collective responsibility towards society and the environment.

3.7.1 Case Study: Mobilearn For Migrant Integration (Sweden)

Mobilearn is a mobile website that supports rapid integration and settlement of migrants by providing selected information through access to up-to-date relevant public databases, a secure messaging platform, language education and marketing features (for surveys, job advertisement and targeted information distribution). One of the main challenges refugees face as they try to integrate in a new country is how to find a suitable job. Sweden, which accepts the highest number of refugees of any European country per head of the population, has fully recognised this issue and is making inclusion in the labour market the driver of refugee integration. The application was successfully piloted with the Swedish Employment Office for early intervention and competence mapping of immigrants and the Swedish Migration Agency for meaningful immigrant occupation. The pilot phase lasted circa 2 years (2015 -2016) whilst the application was already marketed. The app is currently used by around half of all Swedish municipalities, as well as by the Swedish tax Authority and Verksamt (the Swedish enterprise agency). According to a study from the University of Stockholm, European municipalities would save some €420 per immigrant per year if they adopted the app. During the period of operation, and for the number of immigrants equipped with the application, Sweden saved €8.4 million in total. A new pilot is planned to start in 2017 and will involve several EU countries as a part of a transnational collaboration. This reflects well the scaling-up of Mobilearn as a pan-European solution and as a European response to one of our biggest challenges in modern times.

4. NEW EUROPEAN SOCIAL INNOVATION

Europe and the rest of the world is experiencing social disruption, facing an unpredictable future with conflicting visions of a better society. These may appear to be new issues but are actually hallmarks of modernity which have surfaced in one form or another with every new wave of innovation.

Technological innovation collides with dramatic changes in the economy and affects institutions and peoples' lives. And the process is not linear or predictable: one innovation in a field reinforces change in another field generating a self-reinforcing feedback loop. What is new to our time, which makes it even more challenging, is the global scale of the process due to hyper-connected markets and information systems; and the accelerated speed as every day millions of new people connect, generating a global and ever faster loop effect. This is a cause of risk and distress, often leaving public institutions idle and people to fend for themselves looking back with nostalgia.

Social progress is not a pleasant stroll into the future. Complex, unpredictable and all-encompassing it brings a high degree of social disruption. **But holding back and putting up barriers is not a solution. We must go forward and get the gain from the pain of disruption**. **The "happy ending" in which everyone benefits from the system is the goal, but we must be clear about it and committed to it together. This is the basis for the social contract – a shared commitment to common good and public value - that provides the strength to endure the pain**. **Europe in the 21st century demands a renewal of the social contract – especially for the new generations**.

We believe that the European Union must act without hesitation. The very existence of the Union and its legitimacy in the eyes of European citizens is at stake in this effort. Social innovation has a role to play. We would be foolish to believe that the European Union or any other government can fix the problem alone. Equally, social innovation is part of the solution, but just a part.

4.1 Vision

New European Social Innovation is

- **Human-centred, because people are the best source of innovation and the target beneficiaries. Invest in people so they can shape and drive innovation in line with their aspirations and values. Define a baseline of public wellbeing across Europe and foster it.**

- **System focused to turn people's and institutions' potential into positive results, highlighting social innovation at the level of cities and regions as grand scale laboratories**

- **At the core of policy making and the political agenda of Europe to shape a new social contract for Europe;**

4.2 Three Principles

4.2.1 Human-Centred

Each and every person is the greatest source of innovation. She is the outcome of 3.5 billion years of evolution, what machine can match this? Moreover, individuals working together built the greatest civilisations on earth, driving human evolution to reach something unique in the known universe. This might sound self-evident, but is too often forgotten as the buzz of technological innovation dominates debate and people are perceived as casualties of progress.

People must be at the centre of social innovation strategy. Social innovation should start giving priority to investment, to involvement and to the values of people. Building the capabilities[39] for every European to take part in the innovation society must be at the top of the agenda - especially future generations, the marginalised and girls and women, as gender parity is still far from being achieved. They are the *innovation army* of future Europe.

[39] See (Jacobi et al., 2017)

Investment and not handing out benefits is the future. Our proposal is diametrically opposed to the notion of a universal basic income that, in our view, would create a new system of servitude dispossessing people of reason or will to fight and thrive. An investment means providing assets for a precise aim (being a project, enterprise or talent) and expecting a return in whatever nature (either monetary or other). It is the opposite of any sort of entitlement due to citizenship, kinship or any other form of membership. **Human-centred innovation recognises the astonishing ability and will of people – shorthand for entrepreneurship - to develop new means to overcome challenges in pursuit of their aspirations and respect of their values. Investing in these people to reach full potential is the best investment Europe can make. This is a simple principle to be reaffirmed at a time when technological innovation is raising questions about what being human means.**

This approach includes the Commission's Social Investment Package, investing in people throughout their lives, and fostering key skills such as critical thinking and entrepreneurship which are of the essence if we want people to be on the right side of the ongoing technological revolution, as highlighted by the Digital Social Innovation Manifesto. Underpinning this should be the tools and governance structures which would allow co-design and co-production of policies and services, without shying away from the power-struggles and imbalances which this process would imply for mainstream institutions.

As social innovation enters the mainstream arena it must prove its value to the public. It must lead to a general improvement of collective wellbeing. This can be achieved through concrete actions, operating at scale, proving impact and ascribing to a general narrative that speaks to ordinary people. This might look like a simplified policy and we understand the limitation. A shift towards action and experimentation has to be the path forward. Trying and being allowed to fail is a sensible expectation. European support must not be limited to small experimental solutions but must dare to attempt projects at scale. The expectation that – as for the growth model applied to start-ups in the Silicon Valley – social innovation starts with experimental solutions that go through a series of tests growing step by step in a linear process that leads to scale and impact (exemplified in the so-called spiral model) has proved to have structural limitations to deliver results at scale. This means being ambitious. Billions of investment is needed, in grants and in impact finance, to build the institutional infrastructure and capacity needed to coordinate and catalyse the action of the myriad of diverse people, organisations and institutions who are working in the social innovation domain, establishing "scaffolding structures" (Lane, 2015) to set interaction rules within and between competence networks, balancing top-down and bottom-up approaches to grant participation, but also to ensure accountability and action.

4.2.2 System Focused

If people are the foot-soldiers of innovation, they can achieve very little alone. Ability to operate together in large numbers and in a chain of complex and diverse functions, organised through durable and predictable interactions is how they can drive social transformation at scale. The National Health Service and education systems, some of the greatest social achievements and drivers of social progress, are the living proof. The same can be said about the financial market and the internet. Literature on the value and diversity of complex forms of collaboration has been growing in recent decades.[40] The point here is that cooperation is the driver of innovation in society, and complex forms of collaboration and interdependency are the foundations of the most successful economies.[41] Furthermore, the emergence of global supply chains and exponential growth of supranational and multilateral organisations in the age of globalization has boosted the interest in organisational complexity and systems straddling borders and boundaries**.** Despite all of that, economic rationality still dominates and there is a buzz for start-ups and individual entrepreneurs. Policies and programmes have been popping up everywhere but the impact is still to be demonstrated except for a few and concentrated in some

[40] For a review of the leading scholars in the field we recommend Herbert Simon, Douglas North, Elinor Ostrom, Robert Putnam, Marcur Olson, Richard Nelson, Marc Granovetter, Walter Powell, Jonathan Padgett, David Lane, Eric Beinhocker, Geoffrey West.

[41] Recent excavation has dated Göbekli Tepe, an archaeological site in Turkey, as pre-Neolithic (New Scientist 2015). This could prove that the first recorded form of social organisation predates the invention of agriculture and reverses the traditional theory of social evolution. Perhaps this could turn out to be evidence that socio-cultural innovation preceded and created the foundations for one of the of the biggest technological innovations in human history and the beginning of economic development? Of course, there is some way to go for this interpretation to be proved correct, although in the past other non-materialist philosophers and theorists have argued the same. We mention this here because it opens a window on social innovation as the foundation for any policy for growth and innovation.

clusters in the world. The most famous in Silicon Valley. The European Commission has pushed further in this direction multiplying the initiatives and fragmenting the vision into small programmes for social innovation, digital social innovation, social business, sharing economy and circular economy.

A system perspective recognises the agency of individual innovators, enterprises and organisations and focuses on building an enabling environment for innovation. The priority is to build the infrastructure that enables new interactions and facilitates the consolidation of partnerships to achieve shared societal outcomes. It provides direction identifying goals and attaching incentives leaving to the individual agents to form the most suitable and diverse partnerships. Attention must be paid to leverage points, spill-overs and cascading affects both tackling the gate-keeping exercised by vested interests on the boundaries between fields and disciplines – that form the silos - and monitoring the unintended consequences of innovation. The latter is a crucial point to address social disruption and collective distress. While research on innovation – and social innovation as well - has increased exponentially, little attention has been paid to the unintended consequences of innovation (Segercrantz, B. & Seeck, 2013). Professor David Lane (European Institute of Living Technologies & Santa Fe Institute) is one of the exceptions and stands out amongst his peers in this respect but, even though his most recent works have been funded by the European Commission,[42] his conclusions have not found traction in the European policy debate.

Shifting from top-down fixed planning to more flexible approaches based on developing capabilities and resilience will come from a system focus. As the causality between intention and outcomes is often broken in complex social innovation processes, it is fundamental to build the capability of the system to cope with unexpected changes, shocks, crisis, and uncertainty about the future to bring the process back to the intended course or on a new course. Resilience starts with capacity building of all the agents involved, but should leave the room for flexibility, experimentation, building the reserves and redundancy. Somehow, resilient systems are never lean and efficient because they build second and third options in advance of any future crisis. But these are strong on priorities and end goals, as every agent knows to what end the course of action is directed and is responsible for it.[43]

A system approach requires a strategic choice of level that defines its design and then results. A practical way to start and test the system approach would be to focus on cities and regions which can become grand scale laboratories of innovation within which the European Commission can define a set of challenges to be carried out across Europe. Cities and regions are the drivers of the global economy and innovation as hubs that attract and nurture ideas, talents, capital, and organisations,[44] Closer to people's needs than national institutions, cities and regions are big enough to host a meaningful system dynamic and are defined enough to handle this dynamic.

4.2.3 Politically Engaged

Social innovation must be at the core of policy making and the political agenda of Europe. It can no longer be a niche policy and is past the start-up phase. A renewed vision for social innovation must be firmly anchored in European policy making to address the social dimension of the Union starting with the debate on transformation of the institutional infrastructure and legal basis of welfare systems. As recently pointed out by Edmiston (2017), social innovation is eminently political even if this has not been fully declared so far. In fact political debate has been carefully avoided. But it is inconceivable to aim at social transformation affecting services, financing, organisations and professional roles, and avoid confrontation with the status quo and the vision underpinning it.

Social innovation must be translated into a vision for social progress starting with the definition of the European social contract. The so-called pragmatic approach which avoids questions on end-values by leaving the 'social' denominator neutral is untenable in the current situation. People have the right and want to know what kind of better society innovation brings

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[42] The European funded research & innovation projects led by Lane include: Information Society as a Complex System (2002 -06); Innovation, sustainability and ICT (2011 – 14); Emergence by Design (2012 – 15)

[43] The best seller 2015 in management theory – 'Team of Teams: New Rules of Engagement for a Complex World' by General Stanley McChrystal – comes to the same conclusions although it does not refer to resilience and complex system but is the outcome of several years leading the American troops in Iraq.

[44] See (Sassen, 2012)

about. What we innovate for and they have signed up for and are paying for. Catalysing the power of values to give direction to social process – the myriad of large and small initiatives pursuing social goals - is the unique role of social innovation. And defining the direction is a political choice that cannot be left to chance.[45]

We understand that this change of direction would force social innovation into the mainstream policy-making process to redefine Social Europe, and we agree with the conclusion of the "Reflection paper on the social dimension Europe", that the ultimate call depends on the decision that Member States and citizens will make on the five scenarios proposed in the White Paper. Social innovation must be right at the core of the real political choices on the future of Europe – starting with transformation of welfare systems and the social dimension of the Monetary Union, Single Market and Juncker Plan. This is a risk worth taking to legitimise its role and upgrade impact. Social innovation can then take its place in the wider plans to foster social progress in Europe, with the right to challenge ineffective and outdated institutions and values, remnants of the past century, that defend interest groups rather than fostering social progress.

This vision has several implications. The first is a definition of social innovation within the European Union and its institutional arrangement. How can the European Union be the champion of social innovation when its own institutions and processes are shielded from the transformative power of social innovation?[46] For the EU to be a credible leader on social innovation policy it should start with implementation in-house.

The second is the engagement of the private sector and big business. Partnership with the private sector was in the initial vision of social innovation, but remained an aspiration of the Innovation Union, which mainly acknowledged charities, social enterprises and civil society as agents of social innovation. This is a limitation which must be overcome. Since the global financial crisis in 2008, a movement for reform of capitalism has been growing and should not be left alone. Scholars like Michael Porter (M.E. Porter & M.R. Kramer, 2011) have tried redefining the relationship between companies and society to identify an alignment of interests. Action has followed theory with a new wave of corporate foundations led by the Bill and Melinda Gates Foundation and new business models and initiatives such as Plan B of Branson, B-Corps and impact investing championed by the City of London. Such an opportunity cannot be ignored given the amount of resources, financial, knowledge and skills, and branding power that can be mobilised by multinational corporations. At the same time, this means redefining the role of the public sector as the ultimate guarantor that people's interests are protected irrespective of the method of funding and delivery of a service. Getting the framework right for public and private sector partnership is crucial. As highlighted by Manuel Arenilla-Saez, "the state is the key actor to spread social innovation in society as the only one able to guarantee that rights associated with social innovation experiences are recognized for all citizens. Therefore, if social innovation is expected to be useful for society as a whole, it should be supported by the state. At the same time, social innovation will be an enduring phenomenon with significant results only if stable and solid networks of public and private actors are created. These networks have a mission to accomplish: co-creating and co-managing social innovation experiences. Without collaborative arrangements, social innovations are hardly generalizable".

5. RECOMMENDED ACTIONS FOR THE EUROPEAN COMMISSION

In this last section, we put forward flagship actions which could contribute turning this vision into reality. But new actions alone are not enough.

5.1 Narrative and bottom-up engagement

New European Social Innovation is human-centred and needs to build a narrative that can attract and align everyone around shared goals. Building the narrative requires identifying needs, values, fears, assets, strengths and aspirations of people as a starting point for system intervention.

Since the first recorded words, people have felt the urgency to give an explanation to society: its birth, development, and decay. Tons of ink have been used for this purpose. Myths and poems came even earlier. Social media may have replaced pen and ink but the need is still the same.

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[45] Michael Edwards correctly questioned the value-blind theory of social capital that ends up justifying civil society organisations like the Ku Klux Clan as source of community cohesion. David Lane brought to the extreme the same line of thought arguing that the Nazism had a vision of social innovation.

[46] See (Edmiston, 2016; Jacobi et al., 2017)

Network and sentiment analysis, together with events, focus groups, workshops, traditional media communication are key tools. People and groups at risk of social exclusion are particularly hard to reach and require targeted communication and engagement activities. While ICT technologies are key to support understanding, participation, co-design and co-production, all stakeholders (service providers, users, politicians and voters) need training to make the best out of these technologies. As already highlighted in the previous sections, social investment and long-life learning in particular are at the basis of our social innovation vision. Technology must also be safe and privacy-friendly. If there is a lesson the social innovation community has learnt the hard way in the last decade it is "what you want to develop is an innovation community, not only a platform, and for this to happen you need face-to-face meetings and off-line interactions, as well as continuous ICT trainings for first-starters". (interview with Juha Koivisto).

Promote informed and constructive public debate open to different viewpoints and then build the shared narrative around societal challenges and ways to address them. This is a dynamic process: as communities grow and change, new social issues and values will inevitably emerge requiring the system to adjust or evolve. Change will not happen overnight. The preparatory work necessary to enable system change is long, arduous and sometimes difficult to grasp. There is no "killer app" story to exemplify and get everybody excited about complex system change. So, for instance adjusting regulation and standards to allow new partnerships to emerge may require years. This is already the case for social impact clauses in public procurement procedures**.**

5.2 Impact measurement and governance

Managing expectations and keeping people engaged over time is such an important part of promoting systemic social innovation. The aim is to build a narrative that leads to the "happy ending" through a path that is an inclusive story open to everyone. Not less importantly, assessing, monitoring and measuring impact **are crucial to making and demonstrating concrete progress on this Vision. How impact measurement is done can also promote better understanding and shift power into new models of governance.**

Embedding impact measurement is not only a monitoring tool, but also a way to gather real time information on how all the nodes of the network are interacting. This knowledge can inform better multi-stakeholder governance: how to support key actors in the network, people, institutions and companies to innovate effectively to make most impact and be ready for external trouble.

Shared performance management systems based on a set of shared objectives are instrumental in the success of complex initiatives as proved by Social Impact Bonds. Mapping needs and defining impact objectives with all the stakeholders and individuals involved, is the first mile-stone in understanding and redefining power-relationships and value-systems, and implementing appropriate governance arrangements.

Impact frameworks, particularly when publicly available and actionable as co-creation and co-monitoring tools via internet platforms, allow all the parties involved to communicate and share information, promptly identifying and overcoming bottlenecks. Data dashboards can bring out causal relationships between actions implemented and results achieved. Adoption of a shared management system can radically change the approach of practitioners to their daily work, allowing them to experience how collecting data in the field can lead to a better understanding of the different challenges and devising countermeasures.

Taking decisions in a multi-stakeholder collective endeavour to achieve system change requires new models of governance, which consider power-relationships, capacity and resource asymmetries between individuals and organisations; and between incumbents and innovators. Mapping stakeholders (their needs and resources) and building shared narratives around desired changes is so important to address resistance of incumbents. In system change their vested interests are affected and cultural barriers and habits come into play, with innovators often outnumbered on advocacy and lobbying power. Experience shows that building coalitions of stakeholders often requires the establishment of a new intermediary, an "objective convener, who can effectively coordinate the disparate actors in the system to advocate for political change" without being perceived as vested interest. Supporting the creation of "scaffolding structures", advocating for change, building capacity and facilitating interactions between and within competence networks, will be fundamental to push forward social innovation.

Extraordinary opportunities are already here from the internet to enable people – and organisations - to express their own views, hear others, learn about problems and spot solutions. What people think, feel, fear and hope is the fuel of social innovation. People need stories about social innovation that inspire, engage, energise and include them.

Given the importance of these two general principles, we would recommend the following actions:

5.3 Foster Social Innovation Awareness

5.3.1 Funding research and experimentation, for instance to better understand values and power relations, to identify and overcome possible regulatory bottlenecks, to promote transparency and new models of governance, including via ICT enabled tools which respect EU rules and values in terms of privacy protection, security and accountability.

5.3.2 Taking stock, integrating, improving, making available and disseminating all the research and tools developed (and being developed) in this field at global level, with a particular focus on ICT enabled social innovation, catalysing existing communities such as the CAPS and FET communities.

5.3.3 Developing and sharing new metrics for impact and related supporting tools, to allow different stakeholders and citizens to monitor impact achieved by different stakeholders in real time, understand causality loops – including both positive and negative externalities – and build scenarios based on changes in inputs and outputs or in the relationships between stakeholders.

5.4 Mainstream and simplify EU social innovation funding and policy programmes

5.4.1. Promote social innovation as the overarching policy framework unifying and coordinating social, economic and industrial policies.

5.4.2. Reduce the number of funding programmes and calls within each funding programme and mainstream participation rules.

5.4.2. Allow for greater flexibility: fostering systemic social innovation and co-production is at odds with planning each and every activity two to three years in advance, and budgets should be easily reallocated as new partners and innovators come along.

5.4.3. Reduce the bureaucratic hurdles and the time-to-grant for ESIF, particularly in between programming periods, and ensure a cohesion policy programme dedicated to social innovation, allowing for the creation of a dedicated team, agenda, mechanisms, visibility: if it is just a priority across programmes then it might not be implemented.

5.5 Establish a 1 billion Outcome Payment Fund to address current EU challenges

5.5.1. In collaboration with the EIB, EIF, national promotional banks, institutional investors and impact investors from across the globe, establish the biggest impact fund in the world to foster outcome based approaches to the solution of EU societal challenges such as migration, reskilling/upskilling of the unemployed/under-employed or misinformation and civic disengagement. The fund should also provide or associated to grant funding for capacity building (and impact measurement) so that public, private and third sector organisations can get ready for impact outcome financing.

5.5.2. The fund strategy should also be open to experimentation in hybridization of European industrial policies with the social progress of communities, and new financial and governance models for the global economy.

5.6 Establish an EU Social Innovation Agency

To implement these actions, as evidenced by several governments' experiences across the globe, an independent and high-level coordination body will be crucial. Independence means separation from the political business cycle, since social innovation requires time and continuous efforts to come up with stable solutions, as well as with standardisable policy learnings. High-level means it has both the institutional and political mandate, as well as the professional profiles that should underpin its mission.

The mission of an EU Social Innovation Agency should be shaped according to the already stated missions of similar government offices, taking into consideration also European socio-economic specificities. For instance, the EU Social Innovation Agency can be oriented to advance opportunity, equality and justice by helping to create a more outcomes-driven government and social sector as an instrumental principle to build a more sustainable market economy.

The EU Social Innovation Agency would mainly work to identify and scale better, more effective social solutions, as well as to find policy tools for their embedment in the domain of global governance of economy and of a common European industrial policy strategy that strengthen communities and enable upward economic mobility.

In more analytical terms, the EU Social Innovation Agency, in order to (1) foster social innovation awareness, (2) establish and manage a 1 billion outcome fund addressing current EU challenges, and (3) mainstream and simplify EU social innovation policies and funding, might be a dedicated bureau operating within the existing institutional architecture and along these strategic paths:

5.6.1 Knowledge

Partly as a knowledge producer, and partly as a knowledge broker, the EU Social Innovation Agency would aim to increase awareness of complexity and non-linear innovation among citizens, practitioners and policy-makers, building a shared understanding of "places" (neighbourhoods, cities, regions, states) as complex systems or systems of systems, with shared language and tools to support organisations and citizens in mapping entrenched socio-economic issues and stakeholders who are affected (and can drive) change in addressing them.

The EU Social Innovation Agency would need to be engaged in activities related to the monitoring of the results of local partnerships to better understand how different contexts – including in terms of regulations and governance and funding models – influence the emergence of social innovation and what synergies might be built at national, European and global level.

5.6.2 Funding

The EU Social Innovation Agency would be the institutional body with the mandate of supporting financial collaborations between the EU Commission, the EIB, EIF, national promotional banks, institutional investors and impact investors from across the globe, in order (1) to reach the ambitious goal of establishing a 1 billion Outcome Payment Fund to address current EU challenges, (2) to design and shape, together with its main institutional partners, the operationalised funding guidelines and procedures, and (3) to manage the implementation phase and the investment stages.

Moreover, within its funding responsibility, the EU Social Innovation Agency would also act as a capacity-building hub, providing consultancy and training services to public administrations, private sector organisations and third sector organisations/communities looking to implement systemic social innovation initiatives.

5.6.3 Coordination

The EU Social innovation Agency would act also on a coordination level, pursuing different objectives, such as building, in collaboration with cities and regions across the continent, a network of networks to support and monitor systemic social innovation partnerships at the local level, or championing citizen and stakeholder engagement in collective impact partnerships for system change, contributing to build a narrative around human-centred social innovation and a shared knowledge base on effective online and offline engagement practices and tools to drive system change over time.

In other words, the EU Social Innovation Agency would be called to build synergies with relevant existing initiatives, both at local, national and EU level, fostering learnings transfers and supporting an upward convergence (i.e. a fair and equal geographical spread of social innovation) to public value creation across all EU Member States.

5.6.4 Advocacy

Leveraging on the previous activities, the EU Social Innovation Agency would become an ideal institutional independent actor with the trustworthiness required to act as a **convenor** for advocacy activities and lobbying initiatives oriented to system change at national and EU level.

The high reliability of the EU Social Innovation Agency will be grounded on evidence-based and evidence-informed policy proposals, elaborated in close cooperation with local relevant nodes, to make sure that the right regulatory, fiscal and funding measures are put in place at local, national and European level. This includes:

- making sure that social investment policies are supported and substantial resources are allocated to education, training and upskilling/reskilling of people all along their lives and based on updated curricula and didactic materials, tools and approaches;

- making sure that social innovations are widely adopted based on their positive impact on the largest possible number of stakeholders and individuals and not following vested interests and habit;

- Making sure that all the programmes and projects implemented/funded by the Union are assessed and monitored for their societal impact, including financial instruments, thus re-assessing the "societal impact" component of Juncker's investment plan in order to embed it in the financial decision-making process for EIB/EIF funded projects.

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ANNEX: LIST OF EXPERTS

We are grateful to all the experts who provided inputs through interviews or in writing. We quoted some and apologise if we were not able to find space for the breadth and depth of contributions we received. We also take full responsibility for all the statements in the text of the paper and the use of quotes. The full text of all contributions is available upon request when allowed by the contributors. *We thank Dr Joshua Phillips (PlusValue) for his support in the writing of this paper.*

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- Cynthia Hansen, Head of Adecco Group Foundation; and former head of Content Strategy, World Economic Forum
- Dan Hawthorn, Director of Housing and Growth, Haringey Council
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- Filipe Santos, Full Professor and Chair of Social Entrepreneurship at Católica Lisbon School of Business and Economics; Visiting Professor of Social Entrepreneurship at INSEAD; and former President, Portugal Social Innovation
- Francesca Bria, Chief technology and digital innovation officer, Barcelona City Council
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- Monique Calisti, Executive Director & Partner, Martel Innovate
- Martin Stewart-Weeks, principal of Public Purpose and advisor to PwC Australia on The Impact Assembly
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- Sir Ronald Cohen, Chairman, Global Steering Group for Impact Investment and The Portland Trust
- Rosemary Addis, Chair, Australian Advisory Board on Impact Investing
- Salvatore Iaconesi and Oriana Persico, Founders of Human Ecosystems
- Sonal Shah, Executive Director, the Beeck Center for Social Impact & Innovation, Georgetown University; former Director of White House Social Innovation Center
- Stavroula Maglavera, Professor, Thessaly University and CAPPSSI Community
- Tuukka Toivonen, Senior Lecturer, UCL Institute for Global Prosperity
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European society is facing dramatic changes. Despite all its benefits, the innovation society is part of the problem. Social innovation can be part of the solution. Launched in 2010 within Europe2020, social innovation has spread in policy, practice, and research with increasing impact on the economy and society. In this paper we take stock of the main results – whether derived from European initiatives or not - and map the main opportunities and actions required to drive social innovation to the next phase and deliver for a better society. We offer a critical review of theory and illustrate the main trends affecting current and future developments with an array of examples and recommendations for the European Union and all other stakeholders to foster human-centred innovation, designed for and operating at the system level, and firmly embedded in the mainstream policy-making process

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