SI DRIVE
Social Innovation: Driving Force of Social Change

HEALTH AND SOCIAL CARE POLICY FIELD SUMMARY REPORT

D9.4

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CONTENTS

1 FINDINGS AND RECOMMENDATIONS

Social innovation in health and social care is strongly determined by social values, culture and societal expectations. Answers to questions such as ‚who should pay for care?' and ‚who deserves care?' differ across contexts and come together to shape health systems as well as social innovations. Reflecting this, barriers to implementing solutions are often embedded in the ideological and social beliefs held by communities and societies. This, and a number of other factors, can present challenges to efforts to bring about change in the health and social care sector.

Key findings of SI Drive research on health and social care social innovation include:

- Health and social care social innovation[1] is strongly determined by the **context** it seeks to operate in, components of which include: public expectations, policy priorities, buy-in, available funding, availability of non-financial resources, competition, and type of healthcare system.

- These contextual factors come to impact upon the forms that innovations take but, also the extent to which innovations impact upon their practice fields[2].

- There are distinct and shared social practices which can be seen to define particular social innovations in health and social care, these **‚practice fields'** include: new models of care, electronic/mobile health, shift in care location, integrated care, peer support, self-management, health promotion, movement building, task-shifting, gamification, and incentivising wellness. In some instances social innovations exhibit more than one of these social practices in their effort to bring about change. The practice fields explored in this report include new models of care, electronic/mobile health and integrated care.

- In order to work with the environment, or confront barriers to innovation, initiatives frequently need to develop and deploy **‚innovation assets'**. Innovation assets typically include: financial capital, physical capital, human capital, knowledge capital, cultural capital and political capital. Innovation assets are akin to resources in the sense that to an extent one can be used to generate another; they can be transformed and translated into other types of assets.

- Successful innovations are those that are able to successfully adapt themselves to fit society or change society to fit them, or most often a combination of both approaches.

- Barriers to innovation are often overcome by the bringing together of a **range of actors** in order to convene the composition of assets, skills and competencies which are necessary to navigate what is often a highly institutionalised field. It is therefore the role played by actors and the skills they bring, rather than the sector they are from, which is most pertinent to innovation success. Key actor roles can broadly categorised as professionals, citizens, policy makers and technicans.

- Through **process dynamics and mechanisms of change** social innovations can have an impact by themselves or through collaboration with other innovations. Mechanisms of change include learning, variation, selection, conflict, tension and adaptation, planning and institutionalisation, diffusing of technological innovations, competition and cooperation.

As such we would recommend that in order to support health and social care innovation to create change in the world it is necessary to put in place policies specifically designed to help create collaboration, remove barriers and foster greater experimentation. However, importantly, in order to ensure that change can take place it is important to build not just an enabling eco-system, but also an environment where change can

[1] For the sake of brevity health and social care social innovation will be refered to as health and social care innovation for the rest of this report.

[2] Practice fields are groups of innovations or innovative actions which are all motivated by a common social issue or action, or which express some common characteristics.

happen. In order to successfully support social innovations this research makes the following recommendations:

1. **Facilitating understanding of contexts**

   Each context has a unique health and social care system, values and expectations which determine innovation trajectory. Policy makers and other key stakeholders should invest in **research and consultation within their context to understand what the barriers and enablers** to innovation are, for example by identifying the innovation assets that are or are not in place, in order to build specific enabling frameworks for innovators. This is particularly significant since many policy makers we interviewed were unaware of the barriers to social innovation in the sector. This research should be conducted at national, regional and local level scales.

2. **Creating innovation pathways and plugging the gaps**

Innovation in health and social care requires clear pathways for progression, both within and outside of the field.

- **Diverse funding mechanisms** should be available for health and social care innovation, and should reflect the variety and diversity within the sector and the needs of innovators at different stages of innovation development.
    - This means funding should be available both in the forms of ‚seed funds' for early ventures and ‚follow on funding forms' for those innovations which are not in the start-up phase, but still need help refining the business model. This will help to avoid issues such as ‚pilotitis[3]', where innovations cannot access scaling or sustainability funding, often an issue with E/M (electronic and mobile) health innovation.
    - Many health and social care contexts still require development of the social investment market. In some funding environments this may mean the development of mechanisms such as social impact bonds and in others this may come in the form of tax incentives for social investment. For example, the Yuantong Company who developed the Smart Elderly Care programme benefitted from tax reduction as a result of being recognised as a ‚high-technology' company by the state bureau of industry and commerce.
- Other forms of support are necessary in order to foster social innovation. ‚**Nuturing programmes'** designed to help nurture innovation assets such as incubator programmes, accelerators, and labs must be accessible to more innovations in a wider variety of places in order to offer innovators the space and support for experimentation.
- Health and social care systems should create clear ‚**pathways of institutionalisation'** which focus on their own strategic challenges and look to foster innovation from the seed of an idea right through to scaling. However health and social care systems should also be open to incorporating innovations from outside of the system. Such pathways could include:
    - Access to assets necessary for experimentation including human resources.
    - Access to professionals and patients for the purposes of consultation and knowledge development.
    - Structured roll-outs incorporating feedback mechanisms.

3. **Removing barriers**

With an understanding of the needs of innovators, it is important to begin removing the barriers that they face.

- In order to keep people safe the health and social care sector is, unsurprisingly, highly regulated. However, such regulation often stands in the way of health and social care innovation. Reflecting this health and social care systems should adopt an approach to regulation which can be more

[3] The proliferation pilots which do not result in long running interventions and do result in inefficient replication of effort.

flexible and bespoke to innovation. **‚Regulatory sandboxes'** present in the energy and finance sectors of the UK can offer insights into how to navigate this dilemma. Such ‚sandboxes' offer selected innovations, typically high-risk innovations, the opportunity to be released from certain regulation on the condition that they are closely monitored and evaluated. This approach can help to create a space for innovators who otherwise may not be able to test their solutions due to regulatory barriers.

- We would advise the **creation of flexible evidence frameworks** which take into account the fact that many early stage innovations find it difficult to evidence their impacts, due to their size and/or level of resources available. The strong emphasis on evaluation and evidence based decisions has serious implications for the ability of developing innvoations to access funding. Given this, we recommend that (a) a proportionate level of evidence is required, related to the size and longevity of an initiative, (b) resources are made available that help innovators to evidence their impacts, and (c) that innovators are given the time that they need in order to be able to build a robust evidence base for their innovation.

4. Communicating value, and building cultural change

A considerable barrier to social innovation in health and social care are the embedded cultural values of societies, and the cultures within the system and among policy makers. The sector tends to be risk averse and this can make change difficult.

- Health and social care actors, whether policy makers, practitioners or other stakeholders should **build networks of awareness around social innovation**, to advocate for it within the field and to advise on best practice.
- Health and social care systems need to **foster, both formally and informally, the role of ‚change agents'**. People with a passion for innovation need to be facilitated to advocate for new practices in their community, and of innovation generally. Such ‚change agents' may be supported in their role through mechanisms such as fellowships which can offer them the resources and time to take this role on.

2 METHODOLOGY

This report draws together the components of the SI DRIVE project that relate to the policy field of health and social care. It does this, using a breadth of different sources and research techniques, in order to understand the state of social innovation within health and social care across the globe.

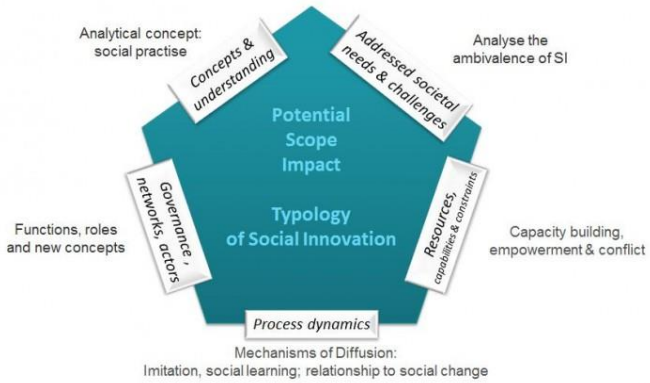
In this chapter we will lay out the framework, design and methodology of the SI DRIVE programme. This approach has yielded rich data on health and social care innovation and has helped us to develop our findings and a set of recommendations for how innovation in this sector can be fostered.

2.1 ANALYTICAL FRAMEWORK

The SI DRIVE project focuses particularly on questions about the relationship between social innovation and social change. As such the project began by defining key dimensions of social innovation[i].

These five dimensions (Figure 1) can be considered an analytical framework for the broader SI DRIVE project.

Figure 1: The five key dimensions of social innovation. Source: Antonius Schröder / Jürgen Howaldt TU Dortmund University



They reflect a desire to:

- Describe and explore the way in which concepts of social innovation are understood within health and social care.
- Understand the relationship of social innovation to social demands, and societal challenges.
- Describe the resources, capabilities and constraints of innovations and innovators. What is needed for social innovation? What holds it back?
- Understand the roles and functions of actors within social innovation as well as explore governance frameworks, and the role of networks and groups.
- Document the different phases of the process dynamics (e.g. mechanisms of diffusion: imitation, social learning; relationship to social change).

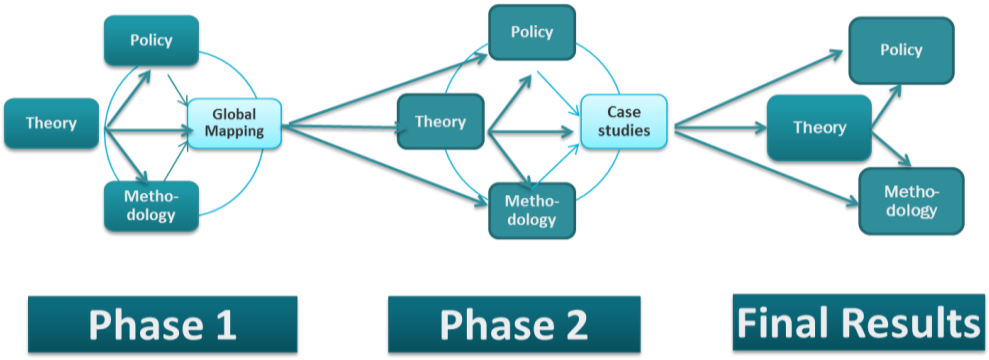
In addition, social innovations were considered in the context of new or growing social practices which find articulation in innovative action[i]. As such a key aspect of our theoretical framework considered ‚practice fields '- groups of innovations or innovative actions which are all led by changes in social practices. An understanding of practice fields is particularly useful at the policy field level where we can begin to understand how certain practices might demonstrate different characteristics. We can also start to think specifically about the role of practices in the process of scaling.

2.2 RESEARCH DESIGN

SI DRIVE is an exploratory research project and because of this has a wide scope. As such the methodology has been designed to allow for the incorporation of a number of different methodological components. This breadth of research methods allows for the important questions about social innovation to be considered from multiple angles, and with reference to a number of different forms of evidence.

In addition, the design of the project has facilitated an ability to iterate; with an exploratory project such as SI DRIVE the ability to reappraise our understandings and adapt our approaches has been of considerable importance.

Figure 2: The iterative research design of the SI DRIVE project:



Beginning with a first theoretical, methodological and policy and foresight framework the empirical **phase 1** led to a global mapping of social innovation: comparative analysis of 1.005 cases worldwide, policy field reports, a global regional report, external database screening, and policy and foresight workshops. This then led on to a reappraisal of the frameworks for **phase 2**.

We looked to understand social innovation at three levels:

1. The policy field: We looked to understand social innovation specifically within health and social care.
2. The practice field: We considered social innovation initiatives at the level of the practice field to understand how specific ‚types' of innovation develop and drive innovation.
3. The initiative level: through case study analysis we looked to understand individual cases of innovation including the specific barriers that they faced, the factors that drove progress and the motivations behind the actors involved.

2.3 THE STATE OF THE ART

In 2015, prior to the mapping, we first explored ‚state of the art' social innovation in health and social care.[ii] The State of the Art report used desk based research and limited expert consultation to lay the ground work for an exploration of the policy field. There was a particular focus on issues such as global health governance structures as well as the role of international health institutions.

2.4 GLOBAL MAPPING 1

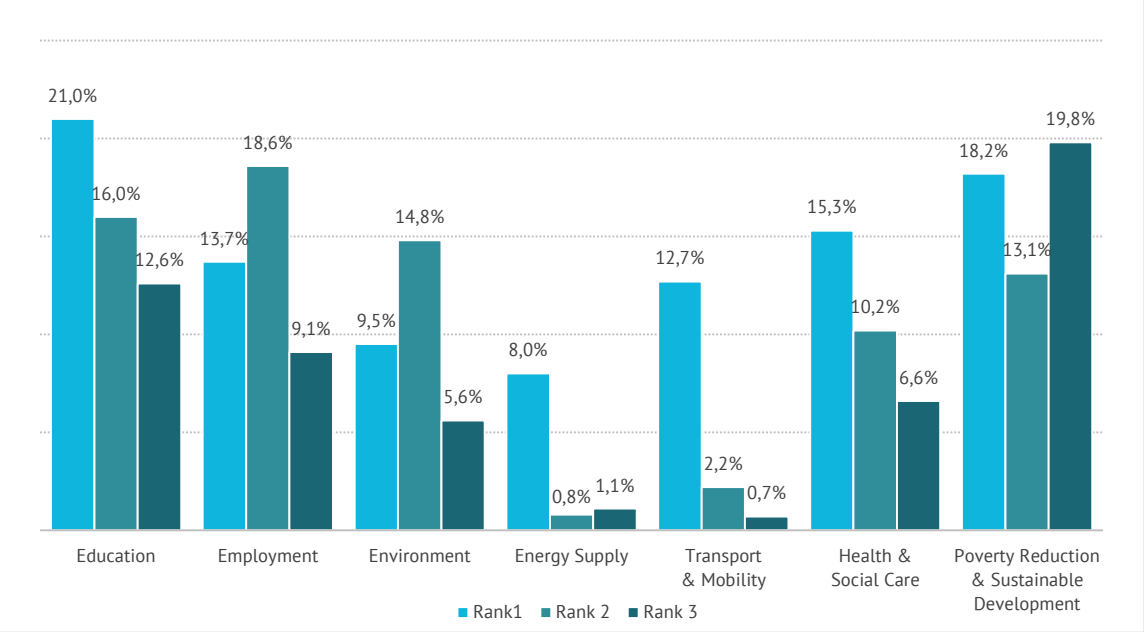
The first round of mapping was conducted using a survey methodology which began with a practice field level analysis, exploring first dimensions of the practice field before exploring the initiative specifically. This approach was reversed during the empirical work for the second phase.

However, in some cases it was difficult to get comprehensive data on the interventions, and therefore we would acknowledge that the data collected in this phase was not always comprehensive. Nonetheless, the first phase yielded an extensive dataset which provided a useful basis for the next phase of research.

Within the health and social care policy field specifically, the initial mapping stage yielded 148 cases of social innovation. Researchers were able to rank the cases applicability to certain policy fields from one (having the highest applicability to health and social care) to three (having the lowest applicability). The mapping data yielded 154 health and social care cases which were given a ranking of one. It is possible to see the distribution of cases in

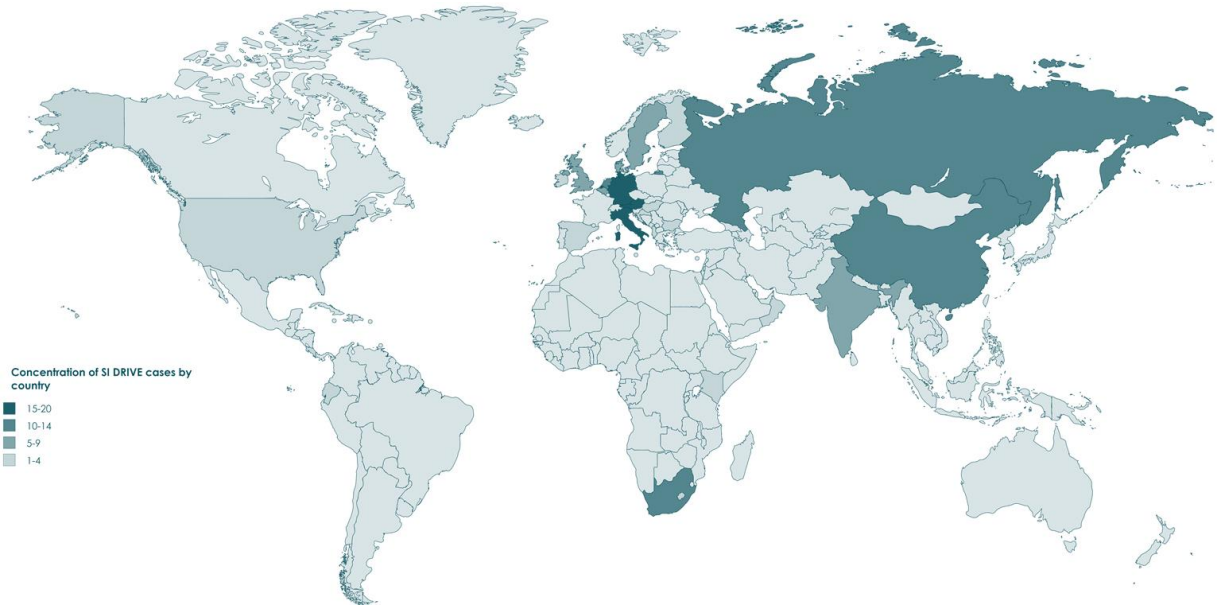
Figure 3 below.

Figure 3: Number of cases mapped in each policy field[4]



As Figure 4 illustrates, the geographical spread was concentrated particularly in countries where we had partners and this leads to an over-representation of Western and Southern European cases, as well as to an under-representation of cases in both North and South America and Australasia, for example. Nevertheless the extent of the geographical spread of this data represents a clear advancement in our understanding of social innovation across these policy fields.

Figure 4: Map representing the global spread of health and social care cases (Mapping 1)



[4] N=1005

During the first mapping phase we considered the social practices at the root of each innovation and found that these could often be grouped. This revealed a number of practice fields which can be seen in Table 1. Some of these, like ‚integrated care' are relatively well understood within the sector and will be familiar to health and social care practitioners. Other practice fields, such as ‚new models of care', , might be less familiar as a concept, and yet are represented by a high number of cases in the mapping data. We then chose three

Table 1: Definitions of practice fields mapped during phase 1 and number of cases.

Practice Field	Definition	# of cases
New models of care	*The process of responding to new social expectations and/or social values by developing models of care that are entirely new in their context, even though they may have existed previously in other contexts.*	44
Electronic/ mobile (E/M) health	*The process of utilising the increased dispersal of technological capacity and capability among the global population in order to increase the efficiency and/or effectiveness of engagement of/with patients by applying technological solutions.*	21
Shift in care location	*An approach to care where tasks which are frequently performed in one location are performed in another in order to improve, quality of, access to, or cost-effectiveness of care.*	16
Integrated care delivery	*A new approach to the way that different actors cooperate within healthcare involving integration across healthcare sectors and/ or the inclusion of new knowledge and new actors/ relationships in order to facilitate the more effective provision of health and social care.*	15
Peer support	*An approach to care in which people with experience of a health or social issue provide support to others who are facing similar situations.*	8
Self-management	*Self-management is an approach to care in which patients or service users are empowered through education, technology or other forms of support to manage aspects of their own care.*	7
Health promotion	*Health promotion bears resemblance to self-management however instead of focusing on the individual level health promotion works on the level of society to put in place social and environmental interventions which change behaviours.*	6
Movement building	*The process of building movements of people at a grassroots level in order to effect change in people's health. It bears resemblance to health promotion but instead of a top-down initiative it can be considered a bottom up approach.*	4
Task-shifting	*The process of delegation whereby specific tasks are moved, where appropriate, to less specialized health workers.*	3
Gamification	*An approach which uses game or game-like elements in order to drive and reward behaviours which have a positive impact upon health. This could be considered to be a 'sub-practice field' of 'incentivising wellness'*	2
Incentivising wellness	*An approach to encouraging healthy lifestyles in which patients or service users are encouraged in certain behaviours through incentives.*	2

practice fields to look at in depth as part of the second global mapping phase.

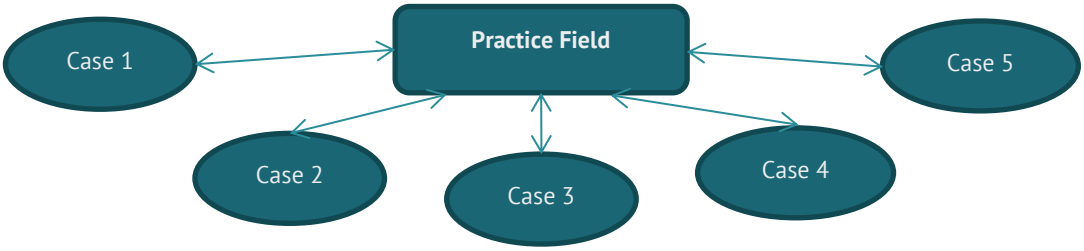
2.5 GLOBAL MAPPING 2[5]

During the second phase of the work 81 case studies were completed across the entire project. These were drawn from the initial dataset of 1.005 and were intended to be a ‚deep dive' into the intricacies of each project. Of these 81 case studies, 15 were conducted within the health and social care policy field. The methodological approach utilised in this phase included in-depth interviews with key members of initiatives as well as an additional survey component which will form the basis of a qualitative comparative analysis analysis (qca). These in-depth case studies have been complemented by two policy and foresight workshops which have included expert stakeholders and partners.

As mentioned above, the second phase of analysis began from the perspective of the initiative, exploring the five key dimensions and mechanisms of social change, before moving on to understand how the initiative relates to the practice field.

In order to build an understanding of dynamics of a practice field it was necessary to consider multiple example initiatives. Reflecting this, the case selection involved two levels[xl]:

- Selection of the relevant practice fields: one which is suitably developed, with multiple mapped initiatives and suitable geographical diffusion. As well as one which appears to be building social change.
- Selection of social innovation initiatives: Multiple innovation initiatives were chosen within a practice field in order to build an understanding of variations in the expression of practices as well as the dynamics of specific practice fields.



This analysis yielded a rich set of data about the process dynamics of social innovations in this particular practice field and particularly about the interaction of actors within the context and wider environment.

2.6 POLICY AND FORESIGHT WORKSHOPS

In addition to the above empirical work, the SI DRIVE project also held two sets of policy and foresight workshops: In 2016, after the completion of mapping 1, and in 2017, when the case study analysis was finished. During these sessions partners and external participants were invited to discuss, and give insights into, our results. The aim of these workshops was to help understand key drivers and barriers of social innovation in health and social care, and to develop ideas for how to support social innovation using policy measures.

5 For a more detailed outline of the methodology for the second phase please see the case study report: Heales, C & Green, H (2017) Social innovation in health and social care: Case study result. SI DRIVE: Deliverable 9.3

3 GLOBAL CHALLENGES

- **There are clear global trends in the challenges being faced by health systems - though the extent and focus of challenges differs between contexts.**

- **These trends include rising life expectancy, increasing costs of care, increasing burdens of non-communicable diseases, rising health inequalities and a global drive to ensure access for all.**

- **Importantly changing social values and expectations around what health and social care should be available, and to whom, is increasing demand for new treatments and technologies and for more personalised ways of providing care. This in turn is contributing to increasing expenditure in the sector.**

- **These challenges are important drivers of health and social care innovation across the world and can be seen to have motivated and shaped many of the mapped cases of health and social care innovation in SI Drive.**

3.1 KEY ISSUES AND REGIONAL DIFFERENCES

There are significant differences in the problems that different health and social care systems face. The impacts of differing demographics with varying needs inevitably affects the kinds of challenges that surface. Indeed there are a myriad of cultural, environmental and political factors which also impact upon the health and social care needs of people in particular contexts.

However despite these differences there are a number of key trends that are changing the nature of the challenges that we face across contexts, in particular:

- Life expectancy is increasing[iii] (see Figure 5). This can be considered in part an outcome of greater access to and quality of care. On average people are living longer, though there are still considerable differences between high income and low income countries. This change in global demographics has consequences for the challenges that countries face and the rise in the number of older people has carried with it a higher burden of disease, and chronic care needs.

- Communicable diseases are increasingly being brought under control, although there is significant regional variation and this is subject to set backs. In some health systems outbreaks of infectious diseases such as the Ebola and Zika viruses are showing up weaknesses in dealing with communicable disease[iv].

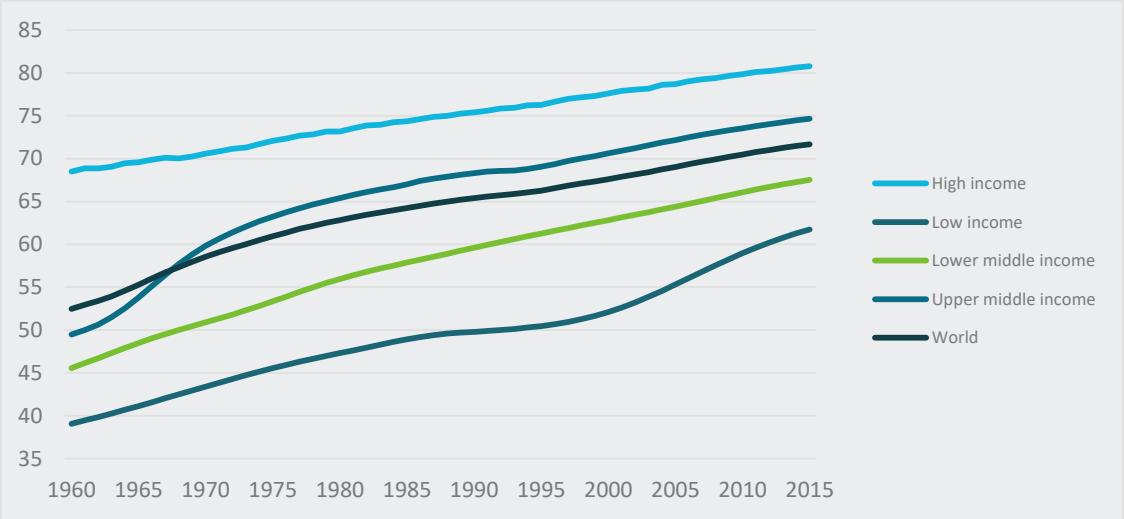
- Access to healthcare is still a problem for some, particularly among poorer people, however the number of people with access to healthcare is rising in the wake of global initiatives to improve outcome.[v]

- Non-communicable diseases (such as heart disease, strokes, cancer and type 2 diabetes) are on the rise in both high income and low income countries. This is driven by increasing numbers of older people and changes in lifestyle.[vi]

- Humanitarian crises are leading to significant movement of people which presents new challenges to the way in which healthcare is provided in some contexts[vii].

- The costs of health and social care are rising. This is a consquence of the rise in ageing populations, the proliferation of chronic diseases, heightened focus on care quality and value, development of new treatments and technologies, increasing labour costs, evolving financial and quality regulations and informed and empowered consumers[viii], albeit this is subject to regional variation.

Figure 5: Life expectancy since 1960 (Source: World Bank)[ix]



This trend of an ageing population was evident in the focus of many of our mapped innovations. Around 30% of the cases from mapping 1[6] had focused their work particularly on elderly people. However, whilst the global population is ageing across income groups, low income countries still lag behind wealthier countries on a number of key outcome indicators. Indeed they face significant health and social care challenges that have been either eradicated or significantly reduced in the rest of the world.

Broadly speaking, low income countries are still facing significant challenges related to communicable diseases. In addition, and probably connected to this, many of these nations lack universal access to healthcare, or display significant variations in access to quality care. This means that for example, maternal and infant mortality rates[7] far exceed high income countries[x]. Amongst rural or isolated populations in low income countries there is often limited access to medical services, and this can present problems for the management of a range of conditions such as HIV or Malaria[xi]. HIV continues to affect 25.6 million people[xii] in sub-saharan Africa and other major health crises including Ebola and Zika viruses have had considerable negative impacts in some low income countries[xiiixiv]. Approximately 400 million people globally do not have access to essential health services, and 6% of people in low and middle income countries are pushed into extreme poverty as a result of having to spend money on healthcare[xv]. Clearly, there is still significant progress needed on these issues in low income countries.

Nonetheless, some progress has been made in the last decade. Since 2000 the global maternal mortality ratio[8] has declined with some countries reporting reductions of 5.5% annually[9xvi]. This may have been related to global initiatives led by the World Health Organisation (WHO) and the wider international NGO and health community aiming to improve health outcomes, particularly in low income countries. Initiatives like the Millenium Development Goals (MDGs) and the Sustainable Development goals (SDGs) have placed signficant emphasis on improving health and care outcomes. Innovations (technological and social) are also playing a greater role in helping to extend access[xvii]. As we will explore in greater detail below, mobile technology is used in order to monitor and communicate with rural patients, whilst the taskshifting, through the use of community health workers, is providing low level care and triaging for patients[xviii].

[6] N=154

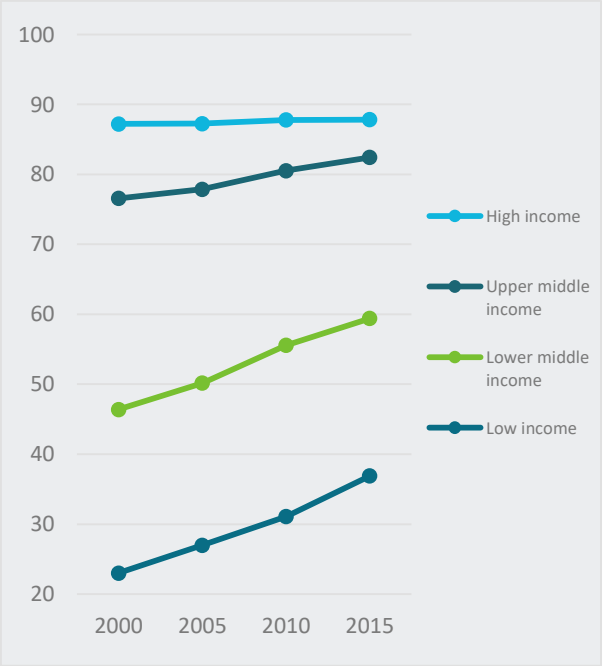
[7] Maternal and infant mortality rates are commonly used as global indicators of health, and as such will be frequently refered to in this report.

[8] The number of maternal deaths (per 100,000 live births)

[9] For the years 2000-2010.

In contrast, many high income countries have largely brought communicable diseases under control through immunisation and public education. Whilst such places can also display high levels of inequality in both access to healthcare and in health outcomes, the base level of healthcare is frequently much higher than in low income countries, and therefore rates of both maternal and child mortality are traditionally much lower.

Figure 6: Deaths from non-communicable diseases as % of total 2000-2015 (Source: World Bank)

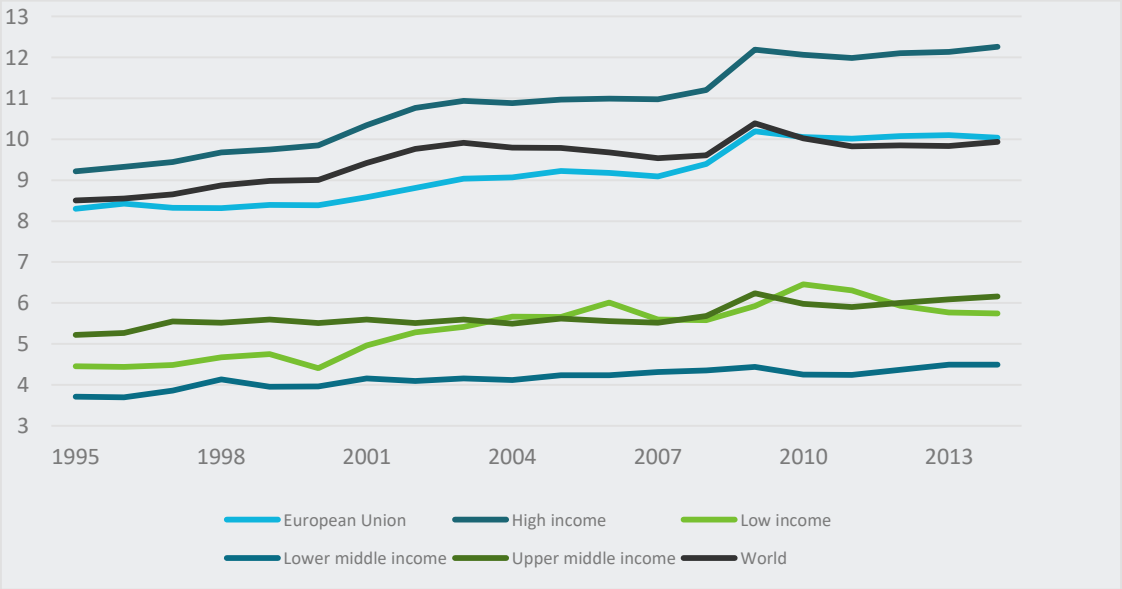


High income countries are typically characterised by relatively well-off, ageing populations. As a result of the older population they often face the challenge of chronic conditions and non-communicable diseases (NCDs) which are often exacerbated by lifestyle choices. NCDs include cardiovascular diseases, cancer, chronic respiratory diseases and many lifestyle related diseases such as type-2 diabetes.

Whilst NCDs are clearly more prevalent in high income countries, NCDs are also rising in many low income countries (see Figure 6)[xix]. NCDs are the leading cause of death globally and older people are disproportionately affected[xx]. From 2011 to 2031 NCDs are projected to cost more than US$30 trillion gloablly[xxi].This places significant demand on healthcare systems, many of which have already been struggling to deal with increasing levels of NCDs. This pressure is exacerbated by the rising expectations of health and social care and the global economic downturn.

Healthcare spending has experienced an upward trend over the last twenty years (see Figure 7)[xxii] and this is projected to continue[xxiii]. This trend is driven by factors such as increasing demand for care as a result of the ageing population, higher labour costs in part caused by skills shortages, higher pharmaceutical pricing and

Figure 7: Health spending total as a % of GDP, 1995-2014 (Source: World Bank)



increasingly expensive medical technologies[xxiii].

Another important dimension of the health and social care landscape are those countries and regions that are suffering from instability. Fragile states, conflict zones and complex emergencies[10] can present major challenges to the health and wellbeing of populations. In addition, the population mobility often associated with such situations can present barriers to health and care access. Internally displaced people (IDPs) and refugees often cannot access quality health services, either because they are not available in the areas that they are in, or because they have precarious relationships with the states or regions that they have fled to[xxiv]. This has been exacerbated by recent refugee crises. The WHO estimates in 2017 that globally 65 million people have been forcibly displaced from their homes and 85%[xxv] of those people are hosted by low income countries, which often already have low levels of healthcare provision and access[xxvi].

3.2 CHANGING EXPECTATIONS FOR HEALTH AND SOCIAL CARE PROVISION

The challenges above are, additionally, set against a context of rising patient expectations. In some contexts, particularly in Europe, citizens have become accustomed to, or expect, high levels of personalisation, efficiency and responsiveness in the consumer services that they enjoy. In some of these contexts patients have access to knowledge about new medical technologies and treatments which they expect even though they are not currently being offered. Many healthcare systems simply cannot cope with the resource demands needed to meet these expectations, and healthcare systems can themselves be relatively slow and resistant to change given the, often bureaucratic, systems in place[ii]

For example, in the UK such rising expectations have created significant pressure on the National Health Service (NHS) to provide specific treatments even when they do not pass ‚cost-benefit' tests which ensures effective use of limited resources[xxvii]. The pressure of public expectations led to political action in the form of the development of the ‚Cancer Drugs Fund', active from 2011, which was designed to circumvent some of the cost benefit tests in order to satisfy patient demand for new treatments. However, the fund has been heavily criticised as providing drugs that have little evidence of effectiveness at great cost to the taxpayer[xxviii]. This shows how changes in public expectations can create new challenges for health and social care services.

If we look to the USA we see an even starker example of how expectations and public values can create change in healthcare service provision. The US public remains divided on the question: ‚who should pay for heathcare?'. Views lie across a spectrum between the belief that the US should enact universal healthcare to the belief that government should not have a role in healthcare markets. Attempts to balance these values and expectations has led to increasing debates over the role of government, and the rise and fall of the Affordable Care Act which was implemented in 2010 with the aim of creating universal coverage.

Rising expectations about what healthcare should be provided is not limited to high income countries. There are increasing international narratives around the need for universal healthcare which, through technologies of power such as the Millenium Development Goals (MDGs) and the Sustainable Development Goals (SDGs), are increasingly shaping the ways in which countries provide healthcare. The tools can reflect public expectations but, also create a global expectation of a minimum standard. In this way they also shape and increase public expectation.

We can see in our case study analysis the extent to which these kinds of metrics have instrumental power. If we look at the South African example of MomConnect we can see how innovation was able to gain greater traction as a result of South Africa missing their MDG targets around infant and maternal mortality. This created

MomConnect (South Africa)

The Praekelt Foundation along with more than 20 partners and overseen by the National Department of Health (NDoH) in South Africa, designed a free mobile service for pregnant women and new mothers. Called ‚MomConnect' the National Department of Health Pregnancy Registry connects more than one million women to vital services and to appropriate information. Since it launched in 2014, it has sent out more than 58 million messages and 95% of health clinics across the country are participating in the initiative.

[10] Complex emergencies are situations of disrupted livelihoods and threats to life produced by warfare, civil disturbance and large-scale movements of people, meaning that any emergency response has to be conducted in a difficult political and security environment.

clear political impetus to endorse and drive through the innovation in the hopes that this solution might help demonstrate to citizens and the international community that the targets were taken seriously and that appropriate measures were being taken in order to address the shortcoming. With the involvement of the National Department of Health in South Africa the project has been scaled widely across the country and versions have been created in other countries such as Rwanda and Uganda.

3.3 FACING THESE CHALLENGES WITH SOCIAL INNOVATION

Advances in technologies and health provision can be seen to be having a transformative impact upon the health and social care sector globally. Whilst health and care outcomes across the globe do differ considerably from country to country, there is growing convergence of the problems faced.

Advances in medicine mean that we are living longer. In addition, advances in mechanisation mean people have increasingly sedentary lifestyles and advances in food production have led to increasing access to high calorie foods. Although these are the successes of humanity, they create further problems. We have rising populations and far higher chronic care needs, and this is presenting crises to the existing systems.

Some of this might be tackled through technological innovation in food production, medicine and treaments, but it is likely that we also need to reorganise the way in which care is provided. Through the empirical work of the SI DRIVE project we have been able to identify some of the ways in which innovators are creating new ways of meeting providing health and social care needs. We have also developed an understanding of how social innovation happens in health and social care, the barriers that innovators face and what they need in order to drive through their solution.

4 CONCEPTS AND UNDERSTANDING

- **Within the health and social care field, as is the case more broadly, there is no single shared understanding of ‚social innovation'. Indeed many social innovators would not use this language to describe what they do. Depsite this, it is a field rich in social innovations.**

- **Within the SI DRIVE project we find that defining something as a health and social care innovation is highly dependent on the relationship of that innovation to its context and to the existing social values that it works within or alongside. An initiative can be socially innovative in one context and not socially innovative in another, depending on whether or not that context is receptive to, or familiar with, such approaches.**

- **Whilst social innovations are associated with ‚social goods', whether or not a social innovation has resulted in ‚positive' outcomes is frequently a subjective judgement and is not without debate.**

- **As such we determine that social innovation is best defined through the lens of changing social practices, new relationships, (etc.) and that a determination of social good should not be viewed as a prerequisite of social innovation. Indeed to view social innovation as ‚new ideas for social good' can lead to the imposition of social values onto contexts where they may seem at odds with the existing cultural environment, and with present social expectations and demands.**

4.1 CONCEPTS OF SOCIAL INNOVATION IN HEALTH AND SOCIAL CARE

The SI DRIVE project takes a flexible approach to understanding the concept of social innovation. In line with the explorative nature of the research, this project seeks to adopt an inclusive understanding of social innovation which accepts that the concept varies between different contexts.

As with much social innovation, it is the case that many innovators in health and social care would not necessarily label it as such. Consequently, there is still much work to be done in order to entrench a collective understanding of health and social care innovation across the world.

One of the defining features of our approach to social innovation is that the nature of the innovative activity is primarily ‚social'. Building on the work of projects such as INNOSERV, a platform for innovation social services, health and social care innovation can be viewed as focused upon new services, new forms of delivery, new forms of governance, new forms of resourcing, or new ways of evaluating[xxix].

Within the health and social care sector the concept of innovation is well understood but, often from the perspective of ‚medical', or ‚technological' innovation. By comparison understanding of ‚social' innovation is less entrenched and more variable. It is sometimes understood as ‚innovation for a socially positive purpose' rather than ‚innovation that is social in its nature'. However, in the SI DRIVE project we stress that the ‚new' social innovations are social in the sense that they have ‚an impact on relationships', but they do not in and of

Embrace Baby Warmer: A Social Innovation

By example we can consider the ‚frugal innovation'of the Embrace baby warmer which isa cheap and low tech way of keeping infant temperature constant without the use of an expensive or electricity dependent incubator. The technology component of this would be a technological innovation and not necessarily a social innovation. However it is also a social innovation because of:

1. **The way in which the product was developed** with the use of a co-design methodology makes it a social innovation; Beneficiaries were included in the process of innovating,and this therefore changed the relationship between user and developer.

2. **This innovation**provided care to children in new spaces out with the hospital context. This also allowedpeople in poor remote locations to access care in new ways.

themselves have to have a positive ‚social' impact. As mentioned, the extent to which an innovation is ‚positive' is often subjective. In addition to being social, they may also be technological (see Section 3.2).

4.1.1 Definitions of social innovation in health and social care

In a health and social care context it is clear that there is no one definition of social innovation that has been internalised by the sector globally. However, there are pockets of actors who do have an understanding of this term and use it. Many of these definitions differ considerably from the approach that we have taken, and instead do choose to align social innovation with social goods.

The World Health Organisation (WHO), for example, helped to develop the Social Innovation in Health Initiative (SIHI). SIHI is a global collaboration of institutions, organisations and individuals working together to advance social innovation in medium-low income countries. This organisation appears to focus its exploration on health and social care innovation around community-based initiatives which work in the space of healthcare delivery:

> *„Social innovation uses a people-centred perspective. It is based on valuing communities and individuals living across the global south to be competent interpreters of their lives and essential contributors in solving the challenges to access quality health services.The social innovation approach extends beyond silos, sectors and disciplines to inclusively integrate all actors around the needs of communities.*
>
> *Social innovation results in the implementation of new solutions that enable greater equity, affordability and sustainability of health care services for all.*[xxx]*"*

This is a narrow definition of social innovation and one which carries implicit social values and requirements for specific ways of working. However, it is also a definition that resembles some of those used within the world of social innovation. The focus on beneficiaries as active agents in solving problems, for example, echoes the definition of social innovation defined by the TEPSIE project:

> *„New approaches to addressing social needs. They are social in their means and in their ends. They engage and mobilise the beneficiaries and help to transform social relations by improving beneficiaries' access to power and resources."*[xxxi]

If we look to the Australian region of Victoria we can see another example of the influence of concepts of social innovation. The Victorian Health Promotion Foundation (VicHealth), for example, takes a much broader approach to understanding social innovation. In one report[xxxii] it offers the definition of social innovation developed by Phills, Deiglmeier & Miller (2008)[xxxiii]:

> *„Social innovations are novel solutions to social problems that simultaneously seek to be more effective, efficient, sustainable or just than previous or existing solutions, and to benefit society as a whole rather than private individuals. A social innovation can take the form of a product, production process or technology; however, it can also be a principle, a piece of legislation, a social movement, an intervention or some combination of these."*

This definition is certainly broader than the one offered by SIHI but, it still carries implicit social values, including the conviction that social innovation is about ‚finding solutions' and ‚benefiting society as a whole rather than private individuals'.

Indeed where social innovation has been defined by health and social care actors it does appear to carry with it rhetoric around ‚social goods'. However, there is a question remaining about the complexities around a definition of health and social care innovation which includes certain prerequisites. For example, if we look to the Phills, Deiglmeier & Mills definition there is a suggestion that social innovations should create more ‚just' solutions but, whether or not an initiative is more or less ‚just' than its alternatives is open to debate, and of course varies across different contexts. Frequently social innovation in health and social care is defined by its context, and by the values and expectations of the communities in which it develops. Indeed these definitions

cannot be seen as universal but, in themselves, expressions of the values of those who have defined and used them.

As we shall see below, context is a key determinant not only of how a social innovation manifests but, also (a) whether it is a social innovation and (b) whether it is judged to be a social good.

4.1.2 Context as a defining dimension of social innovation

The iterative nature of our social innovation definition also led us to adopt an approach which considers that context is a defining dimension of social innovation. In some cases the innovations mapped were global firsts: pioneering ways of changing the way that services are provided. Examples of this would include the model of healthcare provision developed by the Aravind Eye Care hospital[11]. This hospital created a model for providing health services which focused on routinised procedures that were provided in high volume, and which, through a tiered payment model, cross-subsidised care for patients who were less able to afford help. The hospital was able to provide high quality outcomes for patients through this model, whilst also contributing to a reduction in healthcare inequalities.

However, not all innovations appear to be so pioneering. In many cases the ideas being implemented were not necessarily new in and of themselves, but they were new in their context. For example, residential care facilities for elderly people are not globally innovative, but if we look at the Russian example of ‚Care' we can see a service provided, through a social enterprise model, which is new because of the ways it has had to respond to that context. In a context in which social care for elderly people was only provided through the state, the development and implementation of a social enterprise model took considerable innovation both in terms of the development of the initiative, but also in the negotiations of the existing expectations of the sector and the public.

Some key actors in the UK healthcare sector also appear to hold to this context dependent understanding of health and social care innovation. For instance, a UK Department of Health document states: „*innovation is as much about applying an idea, service or product in a new context, or in a new organisation, as it is about creating something new*."[xxxiv]

Care (Russia)

The ‚Care System' was developed as the first 24 hour multifunctional social support service in Russia. The services are provided by means of mobile communication through a mobile phone or a remote control device with buttons, which allows direct connection with the operators. In case of need, the client can press the button and inform about the type of assistance required. Care System is currently operational in ten Russian regions, 72 settlements and the number of users is over 16,000.

[11] Mapped as part of mapping 1

4.2 AMBIGUITIES IN HEALTH AND SOCIAL CARE INNOVATION

As discussed above, our work on social innovation requires that the innovation be focused on the social - in that it impacts on social relationships.

Social innovation is frequently associated with solving social problems or with ‚doing good' however, this is not a prerequisite of our definition of social innovation. This is because there are considerable complexities to determining whether or not an innovation is ‚socially positive'. Indeed an exploration of the positive impacts of health and social care innovation is often highly subjective and, like the innovation itself, is often culturally determined and dependent on embedded social values.

This ambiguity was demonstrated in an example of elderly care[xl] provision in China. Voluntary Care for Elderly People is an initiative which attempts to address issues presented by an ageing population. However, there are a number of ways in which this initiative might be seen as ambiguous in its social impacts.

In China provision of care by non-family members can be stigmatising because it can suggest a negation of duty by family members[xl]. Therefore, whilst the voluntary care initiative can be seen as solving a practical problem, it can also be considered to sit uneasily within the social values of its environment. Therefore, some people would perceive this initiative to bring about a positive social impact, whereas others would not.

Voluntary Care for Elderly People (China)

Voluntary Care for Elderly People is an initiative developed in direct response to the changing experience of older people in China. A rapidly ageing population and societal changes such as the increasing popularity of living in a nuclear family, rather than an extended family, and the rise of women in the workforce means that young people are less able to take full responsibility for parents or older family members.

The initiative aims to develop an informal system of care through organising voluntary activities, including conversations, haircuts, general maintenance and entertainment. During festivals and national days of celebration the volunteers also organise cultural performances and events. The involvement of volunteers is incentivised through the provision of

Another area of ambiguity in this project is in the incentivisation of volunteers through the provision of ‚credits'. China has for many years operated the ‚Hukou' system, a compulsory registration in which households are registered to particular locations[12]. In the context of rapidly industrialising cities these measures have restricted rural to urban migration, as people who are registered in rural districts often lack the entitlement to welfare or services within cities.

Volunteers to the ‚Voluntary Services for Elderly People' initiative are given one credit for every ten hours of service. These credits, when accrued in sufficient amounts, can allow people to change their household registration status (from rural to urban), effectively allowing them to access welfare services that they would otherwise not be entitled to. Whilst this could be seen as the use of the long running Hukou system for a socially positive purpose, one can also see this as an example of a highly ambiguous dimension to this innovation. It can be interpreted as using the lure of a better life in order to incentivise participation in a voluntary programme[13]. It can also be seen as working on the basis of an entrenched inequality, thus reinforcing the existing inequalities in society.

If we look to the practice field of ‚task shifting'[14] we can see another example of an amibuous outcome and a questionable ‚social good'. Task shifting in a number of contexts has been met with mixed responses. For example, in the UK nurse practitioners have taken on some of the roles previously done by doctors such as certain diagnostic duties. This has caused concern among some, who fear that this will lead to patients having less access to highly qualified medical professionals, and therefore possibly a lower level of care overall.[xxxv]

[12] Detail provided in supplementary text to the case study and during policy and foresight workshop 21.02.2017.
[13] The elements of this case study related to the Hukou credit system were provided as additional information during the policy and foresight session, and in a supplementary submission after the case study analysis was completed. It has been added to the submitted long case study after it was originally published.
[14] For a definition of task shifting see Table 1.

Even in cases that appear at first to be less a function of specific social context there can be degrees of ambiguity. For example, Doc Ready[xl] is an intervention which attempts to change the relationship between young people and their GPs by changing the behaviour of the patient. The intervention is based on the recognition that young people with mental health problems frequently do not recieve the help that they need because the language that they use sometimes does not cause concern to GPs, who may be used to talking to adults who often speak about their feelings in different ways. As such the app looks to change the ways young people talk about their feelings with doctors, making it easier for the doctor to diagnose. Whilst this intervention clearly intends to bring about positive outcomes, its focus on changing the behaviour of young people rather than GPs could be seen as questionable. Arguably the intervention puts an additional level of responsibility on young people who may already be under strain, whilst removing responsibility from the professional to make an additional effort to adapt to their patient. This could be seen to contradict the best-practice principle of person-centred care[xxxvi]

Doc Ready (UK)

Doc Ready is a digital tool that helps young people to prepare and make the most use out of mental health related GP visits by helping them create a checklist of factors that they may want to raise with their GP which reflect diagnostic trees used by GPs. It helps to empower young people in their relationships with their GP by: letting them know what to expect during a GP consultation, plan what to say and record appointment outcomes. Interestingly, the product was developed entirely outside of the UK health service.

Since assumptions and values lie at the heart of many innovations, there was ambiguity around the ‚positive impacts' of the cases explored. These values, far from being objectively positive or negative are subject to continual negotiation between, and within, societies.

In summary, to view social innovation as ‚new ideas for social good' can lead to the imposition of social values onto contexts where they have no or different meaning. For this reason we find that viewing social innovation through the lens of changing social practices, new relationships, governance structures, and services is important for a full understanding of social innovation in health and social care.

5 CONTEXT, POLICY AND SOCIAL INNOVATION

- **Health and social care innovation is context specific, it differs from place to place and according to a number of factors. In order to understand how an innovation develops and what its what its trajectory might look like a number of contextual factors can be considered. These include, public expectations, policy priorities, buy-in, available funding, availability of non-financial resources, competition and type of healthcare system.**

- **These contextual factors can also help to determine how innovations function with their context in order to create initiatives which have an impact upon societal challenges or which create social change.**

- **However despite these contextual factors, almost all health systems and new initiatives are forced to balance the competing demands of costs, access to care and quality of care.**

- **By identifying the underlying practices which drive an initiative we can start to think about how particular ways of working contribute to societal change. These practices can help us to define families of initiatives, ‚practice fields', or trends in innovation which can create paradigm shifts in the global health and social care sector.**

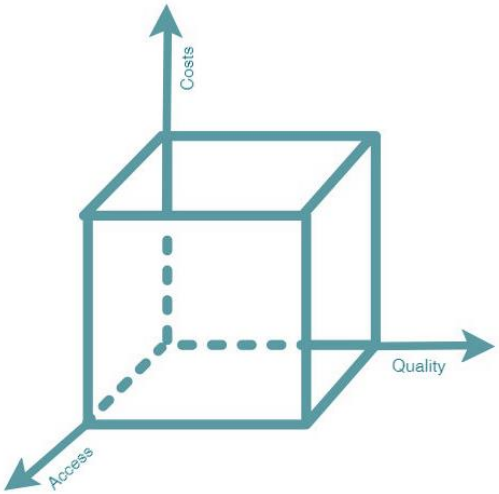
5.1 THE AIMS OF HEALTH AND SOCIAL CARE INNOVATION

Despite signficant contextual differences most healthcare systems can be seen to be balancing three specific demands[ii]: These priorities differ in their importance according to the existing system and environment in question.

- **Cost of care**: The cost of providing healthcare (whether the cost to the state, to insurance companies, to the individual or to employers).
- **Access to care**: Ensuring citizens can access healthcare.
- **Quality of care**: Increasing the quality of healthcare provided. This includes extending the types of healthcare available.

This balancing act is frequently the space in which social innovation operates: with a desire to provide new ways of creating solutions which change or improve one of more of these domains.

Figure 8: The three competing demands on healthcare systems



5.2 COMPONENTS OF CONTEXT

Despite this shared triad of competing demands, different countries have their own set of distinct challenges which are determined by a number of factors. Whilst the global, regional and local trends, and the general aims of health and social care, determine whether or not innovation is needed, the specificities of the context define the form an innovation takes, how it develops over time, its trajectory and its level of success.

Context also determines whether or not an initiative is an innovation. As will be discussed in the following sections social innovation is context dependent because of how it must negotiate the environment in order to develop. Further to this, new innovations depend on the extent to which they differ from something that already exists.

The dynamics of health and social care contexts are complex: they interact with one another, and are frequently co-determining and diffuse in their relationships. However, it is possible to define key components of context which often interact together to produce the environment that determines innovation trajectories. Building an understanding of these contextual factors and how they interact with innovation in specific places, or spaces, is an important way in which health and social care policy makers can help to foster social innovation. By building that understanding policy makers can begin to fashion an environment which is easier for innovators to work within to create social change.

Different societies have different social norms which uncover questions such as; ‚who is responsible for healthcare?' and ‚who deserves care?' These values have a significant impact on the focus of the innovation as they render need visible or invisible. ‚Social needs' are often cited as a driver of social innovation, but these needs are often not as objective as they may seem as they are defined by the values of a community. Social movements are examples of changing social values which differ between contexts and frequently influence or even drive innovation. In Sweden for example we can see a growing social movement around self-management and encouraging people to take a more active role in their health and social well-being. If we look at the Self-Dialysis and Physical Activity on Prescription cases we can see the way in which this social movement has integrated into healthcare provision and influenced the expression of practices in this context.

Physical Activity on Prescription (FAR) (Sweden)

FAR is a holistic approach that views physical activity as an integral part of health and social care and a factor that is acknowledged by all parties to support health. Both patients and health and social care personnel are made aware of and encouraged to consider physical activity as a complement and/or priority measure in the context of health and social care. The physical activity can be prescribed by legitimated health and social care personal, in close contact and discussion with each patient, and with consideration taken to the patient´s medical diagnosis, personal interest and life situation.

5.2.1 Public expectations

Following on from the issue of social values, public perceptions of the role of healthcare can have a significant impact upon what innovation develops out of a particular practice. Populations often have expectations for what kind of healthcare provision they are entitled to; this is frequently related to the kind of healthcare provision that is already available and to the levels of convenience and personalisation that they receive from other services. For example, in contexts where there is a high level of universal healthcare, public perceptions of entitlement can be high and this can shape how particular innovations function.

Smart Elderly Care (China)

This innovative solution takes the form of a platform created by the Yuantong Company (a technoloigcal company), that provides a range of different kinds of health and social care to older people. The customers (the elderly) phone a centre where their calls are answered by staff who use an online platform to put out a call for assistance. Care provider partners then compete with each other to answer calls quickly and efficiently. The company manages a number of partners that it contracts to deliver the services to older people. These services include emergency care, housekeeping, nursing and online diagnosis. Customers can also make appointments with doctors online and request food delivery, cleaning, repairing and house security.

5.2.2 Policy priorities

Policy priorities are frequently determined by a matrix of the above factors. They often emerge from, determine, or align with social values, but also are commonly influenced by political ideology, healthcare capacities and funds. Policy environments will come to influence the expression of practices in different contexts in two different ways: (1) because those innovations which do not align with political priorities will find it more difficult to progress as they will be the subject of either passive disabling (for example by ignoring evidence of impacts) or active disabling (for example by regulating against them); (2) because those

innovations which do align with political priorities may be actively enabled through, for example, public funds or other forms of support. If we look at the case of Smart Elderly Care we can see that the alignment of this case with a policy priority to find efficient ways of providing care to elderly populations. This case was facilitated by being awarded the status of a ‚high-technology company' by the state bureau of industry and commerce because of social need that it filled. In practice this meant that the company was made the subject of favourable government policies including tax reduction, low-interest loan from banks, and to procure lands for use at the low costs.

5.2.3 Buy-in

Importantly, there is a central role for individuals in determining context, and therefore the shape of innovation. This is particularly true of people such as community leaders, business leaders and policy makers. When policy makers demonstrate ‚buy-in' this can help to overcome even harsh policy environments. An example of effective buy-in was in the Keth'Impilo initiaitve where political capital was used to overcome barriers of bureaucracy (see section 6.3.2).

5.2.4 Available funding

Whilst many health services are looking to reduce per capita healthcare expenditure, the extent to which this is a governing priority differs from country to country. Healthcare innovation is frequently an attempt to find ways to address competing demands for higher quality of care, increased access to care and budgetary constraints. Lack of funding available can be both a key driver of, and a key barrier to, healthcare innovation. Importantly, where this funding comes from, how it is distributed, how much is available and at what point it manifests in the innovation development has a fundamental impact upon the form that an innovation takes, and therefore the way in which a specific ‚practice' is expressed in context.

Keth'Impilo (South Africa)

Keth'Impilo is an innovative organisation established to tackle the crisis of HIV/Aids in South Africa. In the wake of the country missing the millenium development goal targets around HIV/Aids there was significant political will from the Minister of Health to create change. It is both a systemic innovation which seeks to find new pathways to improve care and validate models, and it is also an innovating organisation which attempts to put in place new programmes which will help to tackle HIV/Aids. It specifically specialises in solution development and implementation for health and community systems in marginalised communities.

5.2.5 Availability of non-financial resources

In addition to funding, there is also a significant degree to which available capacities have an impact upon the trajectory of health and social care innovation; this includes the number and expertise of health practitioners, the state of infrastructure, and other aspects of the capacity to provide services. Practices such as telemedicine are shaped according to the availability of practitioners and the need for them to provide efficient care remotely over long distances.

5.2.6 Competition

Competition plays a significant role as part of the context in which social innovation emerges. For example, one of the primary drivers of the practice field of ‚integrated care' is the need to reduce costs. It would seem significant therefore, that population-based models of integrated care have only developed Bismarck-like models of healthcare – that is using an insurance system. In these systems we can see increased competition, although it is unclear if this is a core reason for the development of the innovations.

5.2.7 Type of healthcare system and level of bureaucracy

Understanding the different types of health care systems around the world is important for understanding the context in which social innovation can occur. Historically, there are three main types of health systems[ii]:

- The **Beveridge** model (or national health model), which is characterised by universal health coverage, funded through general taxation (e.g., UK, Italy, Sweden, Ireland).

- The **Bismarck** model (or social insurance model), which is characterised by compulsory coverage, financed through employer, individual, and private insurance contributions (e.g., Germany, Austria, Belgium, and the Netherlands).
- The **private insurance model (also known as out-of-pocket)**, which is characterised by employment-based or individual purchase of private health insurance (as predominates in the USA)[xxxvii].

Crucially few countries, even those where these models first developed, subscribe entirely to one model. Rather health financing is often provided through a number of different sources (e.g., taxation, voluntary purchase, out-of-pocket and social insurance funds). Differences between country systems, and often in combination with differences in other contextual factors, can help to create significantly different health challenges, subsquently influencing the innovations that develop and take hold.

The type of health system that is present in a country (for example Beveridge model, Bismarck or out-of-pocket) has a significant impact upon the form that innovations take, and whether particular models of healthcare are viable. One of the most prominent historical examples of task shifting, for example, was the use of ‚barefoot doctors' in China. Under this system government trained farmers in order to be able to provide basic medical and paramedic assistance to people who otherwise would not have access to a doctor. However, as the healthcare system in China evolved away from a collectivist model towards a more free-market approach[15] this became inviable because of the costs associated. Different healthcare systems also demonstrate varying levels of bureaucracy and this can have a significant impact on the ability to innovate. Importantly, regulatory frameworks also differ considerably between contexts and these are frequently identified as a major barrier to innovation in health and social care.

5.3 PRACTICE FIELDS

Context shapes the way in which particular innnovations differ, and can contribute to the ways in which practice fields develop. Few innovations come from nowhere. They are frequently applying principles, adapting approaches, seeing what is out there and applying a new lens to take it a step further. As discussed in the methodology section above, the SI DRIVE project has taken an approach to understanding social innovation that focuses on social practices. By identifying the underlying practices which drive an initiative we can start to think about how particular ways of working contribute to societal change. These practices can help us to define families of initiatives, ‚practice fields', or trends in innovation which can create paradigm shifts in the global health and social care sector.

Three practice fields were explored as part of the second global mapping stage in order to try and understand how different practice fields develop, how they progress and the factors that are common across them. The practice fields investigated included E/M health, integrated care and new models of care (for definitions see Table 1). This also allowed us to understand variation within practice fields. We found that there were considerable overlaps between each of these fields because many interventions utilise a number of different practices in their development. Our case of Smart Elderly Care, for example could be seen as both an integrated care intervention and an E/M health interventions. As such we examined them according to the practice field that we felt that they were most strongly associated with. We then vetted our findings with experts and partners during our final policy and foresight workshops[16]. In the following sections we lay out our key findings from our analysis of the practice fields.[17] [xl]

5.3.1 E/M health practice field

E/M health practice field, although fairly recent, is having a momentous impact on how we organise health and social care provision. We define E/M health as: '*the process of utilising the increased dispersal of technological capacity and capability among the global population in order to increase the efficiency and/or effectiveness of engagement of/with patients by applying technological solutions*'. Importantly E/M health is not simply about the

[15] Blumenthal, D., & Hsiao, W. (2015). Lessons from the East—China's rapidly evolving health care system. New England Journal of Medicine, 372(14), 1281-1285.
[16] Held at Young Foundation offices on the 21.02.2017- 22.02.2017
[17] Based on the case study analysis and policy and foresight workshops.

use of technology, it is about how that technology is used to disrupt or change relationships, to offer new ways of reorganising healthcare systems and to create new pathways for access and for communication. E/M health can, in some circumstances, be seen to be an intervention which has the potential to make interactions with doctors easier, more convenient and cheaper for health services. This combination of meeting demands and needs of health services appears to have led to great proliferation of services.

It is difficult to say where we would identify the first socially innovative application of electronic and mobile technology. Technological capacity existed and migrated into the health and social care arena and then began to take specific forms. Those forms were observed, imitated and adapted and created new trends and paradigms in social innovation. This practice field is very well developed such that we can even consider it to have sub-practice fields, such as Telemedecine or Self Management Apps[xl]. Whilst the field is diverse, there are some clear commonalities.

E/M health frequently features high levels of collaboration because such initiatives require competencies from the fields of health and technology in order to develop.

Figure 9: Illustrated minutes of the discussion around E/M health during our policy and foresight workshop (22.02.2017) Credit: Raquel Duran, More than Minutes.

Replication and transfer is often one of the key ways in which projects grow. Interventions often need adaptation in order to meet new contexts but, so long as there is the technological capacity among the target population, this is frequently made possible with only minor adaptations.

E/M health is seen as having great potential among policy makers for creating change because of the capacity to automate or support aspects of health and social care, and therefore reduce costs. Furthermore, many members of the public are used to the conveniences of technological integration into consumer services. Consequently, they are keen to see a greater degree of such convenience in their health and social care services.

The E/M health field has a high level of adaptability, and therefore is seen in health systems across the world in multiple incarnations. It also an example of how adaptation and imitation are quickly creating new paradigmns in health and social care, and how practices are becoming incorporated into the expectations that people have. However, there are also some common barriers to E/M health that have been identified. E/M health interventions frequently do not have access to follow on funding streams, and business models can be difficult to develop. Grant money is offered in the form of seed funds and this can lead to ‚pilotitis', the proliferation of E/M health pilots which do not result in long running interventions and do result in inefficient replication of effort. The Ugandan Government became so aware of this phenomenon that they placed a moratorium of the funding of E/M health interventions in order to try and solve this problem of scaling.

Another barrier to the development of E/M health are issues around data safety. In many countries populations are becoming ever more aware of the sensitivity and worth of their data and this is opening up questions about the desirablility of sharing personal, and particularly health data.

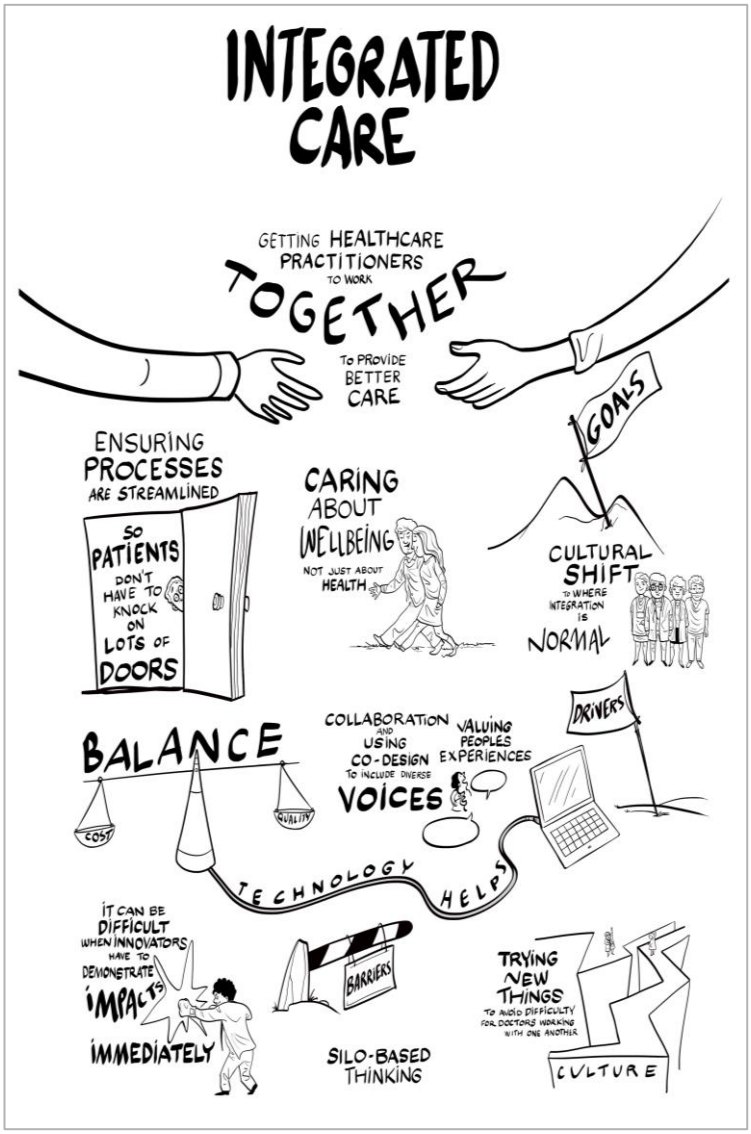
5.3.2 Integrated Care

Integrated care can be seen as a reconfiguration of the relationships within healthcare in order to facilitate better, and more effective, healthcare provision. Although this does mean innovation within individual practices, innovation within relationships is largely what characterises the practice field. These may be relationships between different providers, relationships with those outside of the traditional healthcare system, or the relationships between users and providers of healthcare.

The field appears to be driven by a desire for more efficient working which puts patients at its centre, and looks to ensure streamlined services which are easier for patients to deal with. Conflicts within the existing healthcare service across countries, and social values which promote different models of health are both major drivers in the development of the practice field. This is reflected in policy decisions, which in turn drive the growth of the field and define it as a distinct practice field.

Cooperation is a particularly important mechanism of social change in this practice field Assimilation is more difficult due to the highly context-specific nature of the relationships and embedded cultures. Gesundes Kinzigtal (Healthy Kinzigtal) is an example of an integrated care model for a whole region/population which organises care across all health service sectors. An important aspect of it is that physicians and other health professionals are trained in supporting patient self-management and shared decision-making. The patient and the physician develop a treatment plan and define treatment goals, which are regularly revised.

Figure 10: Illustrated minutes of the discussion around integrated care during our policy and foresight workshop (22.02.2017) Credit: Raquel Duran, More than Minutes.



Healthy Kinzigtal (Germany)

Gesundes Kinzigtal's integrated care is one of the few population-based integrated care approaches in Germany, organising care across all health service sectors and indications. An important aspect is that health professionals are trained in supporting patient self-management and shared decision-making. The patient and the physician develop a treatment plan and define treatment goals, which are regularly revised.

One of the main barriers to the development of the practice field is that current systems still favour traditional healthcare models. Integrated care requires different models of funding and support which are difficult to access in current healthcare systems. Silo based thinking and entrenched cultures of healthcare provision can stand in the way of integrated care interventions becoming institutionalised. As a field of practice, we can see that even though the interventions

themselves are difficult to replicate there are expectations around care provision which are consistently being built because of the acknowledgement that integrated care is best practice. The shift in how we think healthcare should be delivered creates demand, which in itself, encourages the development of further, more integrated, models of healthcare provision.

5.3.3 New models of care

‚New modes of care' are described as: „*The process of responding to new social expectations and/or social values by developing models of care that are entirely new in their context, even though they may have existed previously in other contexts.*"[xxxviii]

This practice field is a complex one to consider because new models of care typically lie in the process of innovating, rather than in the use of a specific model of working. This means that there are high levels of variation in the kinds of innovations that fit within this field.

The process of validating models of care is increasingly seen as a priority in contexts where health sectors are changing significantly – in terms of demands dictated by issues like demographic changes and changes in social values and expectations.

‚New models of care' are frequently driven by social changes and new demands, and they often need to adapt their models in order to suit the new context. Since this requires new ways of thinking, it often creates tensions with the established ways of doing things, and there can therefore be problems in maintaining or scaling interventions. Health is a risk averse field, and therefore significant cultural change is necessary in order to take a new model and develop it.

Figure 11: Illustrated minutes of the discussion around new models of care during our policy and foresight workshop (22.02.2017) Credit: Raquel Duran, More than Minutes.

Pathways for developing ‚new models of care' are not present in every context and even where they are present, it is possible that the work would not be easily identified as news models of care. If we look at Keth'Impilo for example, we can see a kind of innovative parallel infrastructure set up outside of the health system in order to test and validate new models of care.

However, there is a growing focus on introducing new models and ways of doing things into new contexts. In the UK the phrase ‚new models of care', has to some extent taken hold and there are pathways being established within the health sector to enable model testing and validation. The new models of care programme has been established in order that organisations or groups can pilot, test and validate new ways of working. Whilst this practice field might not be easily recognised among innovators themselves, there is a clear degree to which the practice of experimentation is beginning to scale as people imitate, not just the processes of healthcare delivery, but also the way in which we develop new ways of doing things. As such new models of care has the potential to be a highly disruptive practice field.

6 RESOURCES, CAPABILITIES AND CONSTRAINTS

- **Understanding the journey of innovations on their way to creating impact is important as it helps us understand what the key points in the lifespan of a social innovation are and what is required at these crucial points. For social innovations to be long lasting and successful they need to negotiate the transition from idea to scaling and sustainability. This journey can be challenging and often requires iteration of design and implementation.**

- **The ability of an innovation to become sustainable frequently has a considerable amount to do with the context, but also the ability of the innovation to develop an appropriate business model and to convene capabilities and resources - what we refer to as ‚innovation assets'. These help initiatives to overcome the barriers that can sometimes stand in the way and allow innovators to optimise opportunities.**

- **We define six key innovation assets which interact within the context in order to determine the viability and trajectory of a social innovation. These are financial capital, physical capital, human capital, knowledge capital, cultural capital, and political capital.**

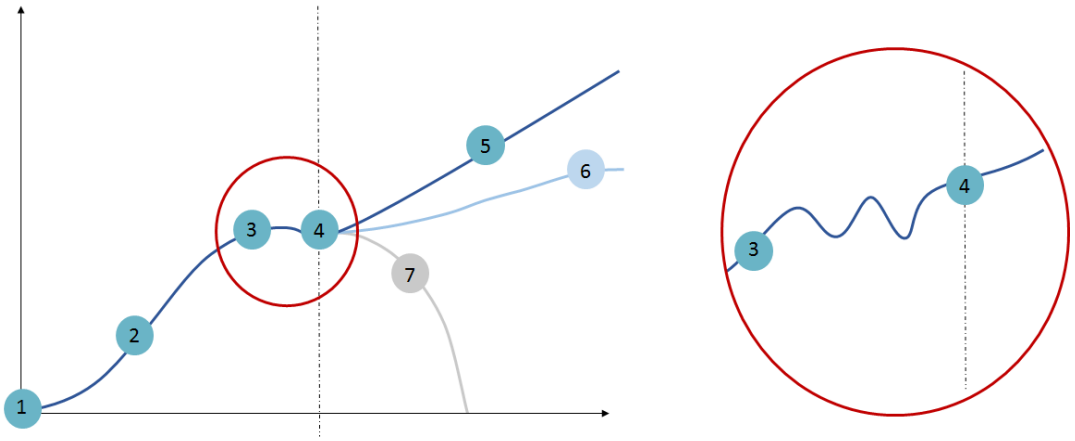
- **These innovation assets are highly interdependent and at times can be translated into one another depending on the needs and capability of the innovation.**

6.1 THE JOURNEY OF INNOVATIONS

The journey of innovations on their way to creating impact is important to us because it helps us understand what the key points in the lifespan of a social innovation are and what is required at these crucial points. Through reference to our case studies we have been able to understand more about the lifespan of social innovations, how they progress over time, and the different approaches to sustainability that they take.

The model developed below is generalised from our health and social care case studies. Whilst the time scales will differ from innovation to innovation, we find that there are fairly consistent points in an innovation journey and three distinct paths that innovations are likely to take in the medium-long term, as shown below.

Figure 11: Journey of innovations from start up phase to sustainability and/or decline



1: **Start up phase:** The problem has been identified, the idea is in place. There are also enough resources to begin implementing the test stage. In these early stages people often have a finite amount of resources. This may be a start up grant or it may be a contribution that the initiator themselves has made in an effort to get

the project off the ground. For example, as we will see below our first round of mapping indicated that 36% of the mapped cases named ‚own contribution' as one of the forms of initiative funding.

2: **Testing phase:** The initiative is trialled with the aim of optimising design and maximisng outcomes. This phase often involves bringing together different partners in order to begin a stage of further design and implementation.

3: **Evaluative phase:** The initiative, in coming to the end of the trial phase, is assessed for effectiveness. For those initiatives that have had start up funding this is where the money frequently runs out. This is also the period when innovations frequently need to ensure that they transition from a start up to a sustainable long term business model. Evidence of effectiveness can help to provide information needed to pass the line of sustainability by attracting investment, customers, or institutionalisation.

3-4 **The re-evaluative phase**: the period between three to four differs considerably between innovations. It is often a time of rethinking how the project works, adding new dimensions, or removing them, thinking about how the service users interact with them. It occassionally means returning to earlier phases of ideation or adding new elements of engagement.

Changes can be spurred by the need to transition to a sustainable long term business model and sometimes iteration is needed to get this right. However this phase is also frequently characterised by a lack of resources - as a result of seed funding depletion.

4: **The point of sustainability**: There is a crucial point in the journey of many innovations when they must move from an early stage to a later stage innovation. This is frequently the point when innovations need to ensure that they are somehow sustainable, as it is often where seed money runs out. At this point a decision is made about the kind of business model that is developed.

5: **Path of high scaling and/or significant institutionalisation:** Some business models have significant potential towards scaling and long term certainty of sustainability. This can come through institutionalisation which entrenches the initiative within health system practices, but can also come about when there are a high number of service users, little competition and/or high demand.

6: **Path of modest sustainability:** Not all innovations become widely entrenched. Some of them, often those which have a more modest customer base, have less options for institutionalisng or which face greater competition, experience lower growth or can plateau quicker.

7: **Path of decline:** For those innovations which are unable to find a sustainable business model, the rest of their journey can be characterised by decline. Whilst resources might be found in order to keep the innovation going in the medium term, without a business model that works in the long-term the innovation often winds down.

Our research shows that crucially, in order to reach the critical fourth stage of sustainability, innovations need to develop appropiate business models and to convene a range of innovation assets.

6.2 BUSINESS MODELS OF HEALTH AND SOCIAL CARE INNOVATION

Health and social care innovation utilises many different business models besides ‚social enterprise', from for-profit models to non-profit, to institutionalised or governmental models sustained through taxation or through institutional structures. These significant variations in business models can be considered to contribute towards the moral ambiguity of social innovation. For instance, there are incidences where for profit models do not ask people to pay and when non-profit models ask people to pay.

Whilst in some cases business models are straight forward, either for profit or non-profit, there are numerous variations that are used in health and social care, and the viability of each one changes from context to context

depending on a host of contextual factors, such as the kind of healthcare system in place and the ways in which health and social care services are commissioned. This variety of business models was represented in both stages of the SI DRIVE mapping. Indeed this complexity is particularly reflected in the manifestations of innovations in so-called ‚social enterprises'.

Social innovation is frequently associated with social enterprises[xxxix]; businesses set up to serve both a social and a commercial mission. However, globally, the distinction between social enterprises and commercial businesses is not always clear. Whilst some countries have set up legal structures specifically designed to cater for social businesses, many regions have no such structures and therefore the definition of ‚social enterprise' is much more fluid. A definition of social innovation with global relevance would not require that the business have an asset lock[18], or that the social purpose be written into the articles of association. Additionally, it would not necessarily make distinctions between for-profit models or non-profit models.

Business models, like other aspects of socially innovative initiatives are often a product of their environment, and of the specific challenges and opportunities available to innovators in their context. If we take the UK example of Dementia Adventure[19], we can see an example of an innovation which has had to use multiple organisational forms in order to provide their services because of various national restrictions on the role of business and charities. Dementia Adventure services have not been incorporated into the wider health service, and therefore it is a service which must remain sustainable in its own right. They have done this by creating a Community Interest Company (CIC) which charges for services and a charity - a trust - which can then use its funds to help subsidise or provide holidays to people living with dementia. They have had to seperate out parts of the business in order to ensure that they are compliant with restrictions on the functioning of such organisations, and therefore have developed this hybrid model.

Dementia Adventure (UK)

Dementia Adventure is both a Community Interest Company (CIC) and a charity. It provides a range of services to try and ensure richer lives for people living with dementia. They do this by providing training and consultancy and by providing or assisting in the provision of carefully designed holidays or trips for people with dementia and their carers.

LIFEtool (Austria)

LIFEtool is non-profit limited company that was founded to support people with physical handicaps, learning disabilities or multiple impairments through computer technology and software, and to give people without phonetic language a voice. This is done through mechanisms such as scanning, where the computer reads the movement or blink of the eye and translates this information into another form of spoken, written or icon-based communication.

Another example of a kind of business model variation across one social innovation is the Austrian case of LIFEtool which uses a kind of ‚social franchising model'. LIFEtool was set up as a joint venture by a charitable organisation (Diakoniewerk), and a research institution (AIT) but is, itself, a non-profit business. It has seven service points (in Austria, Czech Republic, and Serbia). These offices are independent from the parent business of LIFEtool gGmbH but: "We share the brand, we have the same topics and we meet on a regular basis. It's like a 'social franchise'"[20]

Vitaever (Italy)

Vitaever was established to address the needs of an ageing population, as well as dealing with the demands of national government and healthcare providers to control the increasing cost of chronic diseases. It is a software which aims to make homecare more efficient and effective, and increases the commmunication between healthcare providers and families.

The types of business models that innovations use can also have a considerable impact upon their intellectual property. Social innovation is frequently associated with ‚open innovation', however we find that in the field of health and social care innovation some initiatives choose to protect their intellectual

[18] The purpose of an **a**sset lock is to ensure that the public benefit or community benefit of any retained surplus or residual value cannot be appropriated for private benefit of members.
[19] An example from mapping 1.
[20] From interview H conducted as part of Mapping 2 (AIT).

property. This was particularly true in the field of E/M health. Case studies including LIFEtool, Vitaever, and Smart Elderly Care chose to protect the technological aspects of their innovation through patents or other licenses in order to ensure the viability of their enterprise. However, there were innovations like MomConnect who chose a deliberately non-competitive model. This again can be seen to open up questions of ambiguity as initiatives look to reduce the competition which could potentially drive better solutions.

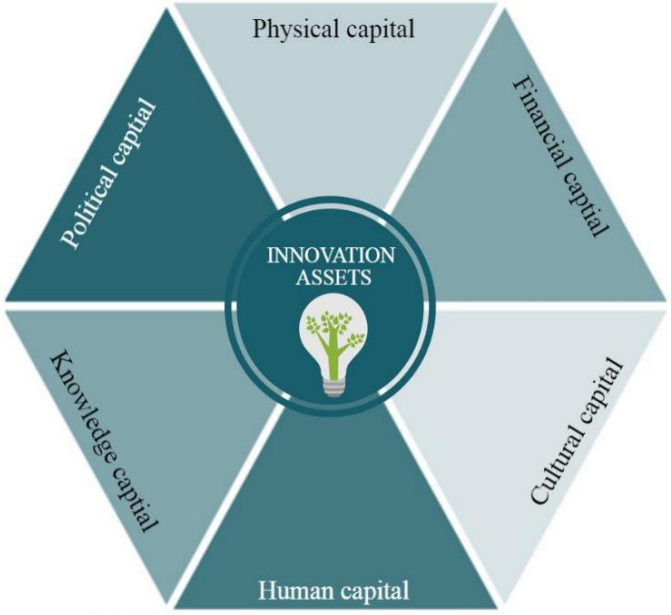
6.3 KEY INNOVATION ASSETS

Health and social care innovation frequently faces barriers which threaten the ability of the initiatve to become sustainable, especially as in many countries health and social care is highly regulated.

Throughout this project it has become clear that the trajectories of innovations are intricately linked with the kinds of resources and capabilities available to innovators, which differ from context to context. These resources, or assets, come to define not only how an innovation develops over time, but also the barriers that manifest along the way.

The resources, capabilities and constraints of innovations can be considered as forms of ‚capital'. Capital exists not only in terms of financial resources, but in terms of the wider sources of value that are wielded in the process of innovation. We define six key assets that innovators frequently need in order to be able to drive their idea forward:

Figure 12: Innovation assets in health and social care



Financial capital are those financial assets that facilitate or enable innovation. Financial capital often enables operationalisation, because it can be easily translated into necessary human and other kinds of capital, and is therefore often a vital dimension of health and social care innovation.

Physical capital often comes in the form of those assets such as buildings, tools and machines which provide the infrastructural components for an innovation operating. Within health and social care innovation this can amount to the building that houses operation, to the machinery or technology (such as computers) necessary for the innovation to function.

Political capital is the ability of a person or a group to influence political decision making, or to leverage political relationships and priorities to the benefit of the innovation. Political capital can allow for the influence of important dimensions of the healthcare environment such as regulation, policy or risk appetite.

Knowledge capital is the understanding among the initiator(s) of those dimensions crucial to the success of the innovation. For an E/M health innovation, for example, it has to be possible for the innovators to access the knowledge to build the solution. Knowledge capital is very broad and can range from a clear understanding of medical procedures to an understanding of how patients would like to interact with their doctor. It can also include an ability to evidence the impacts of the initiative or knowledge of the political and policy making process and landscape

Human capital describes the personnel and human resources necessary in order to be able to build the innovative solution. It means the ability to be able to bring together teams with the correct skills and competencies in order for them to be able to serve their functions.

Cultural capital concerns the extent to which the initiative can influence culture or the extent to which it addresses needs determined by culture that otherwise have not been addressed. In addition, cultural capital

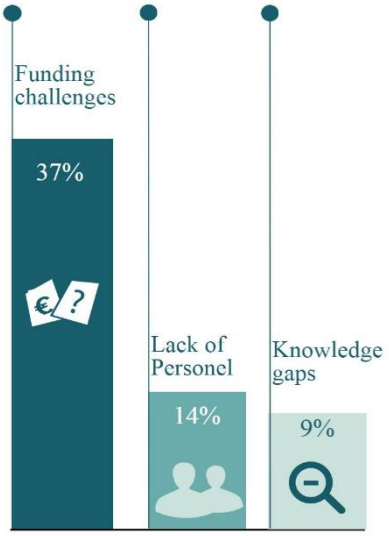
also speaks to the ability of the innovative initiative to shape itself to the culture around it. As already discussed, health and social care is a field in which there are clear and entrenched cultures which innovations either need to effectively work with or change to be successful.

There are clear interdependencies between types of capital. An innovation that is rich in one kind of asset appears more able to overcome constraints created by deficiencies in other assets. For example, knowledge capital can manifest in an understanding of how to demonstrate impact, this in turn can help to develop political capital, which in turn can help to facilitate access to financial capital. However, there are also links between innovation assets and other critical dimensions of innovation. These assets are a key way in which innovation comes to engage with its context. Likewise innovation assets can frequently be changed or enhanced according to the actors involved in the process of innovating.

6.3.1 Financial capital

Financial resources are an important dimension of operationalising social innovation. The amount of financial resources available for social innovation differs significantly from country to country, and the ability of innovations to build a functioning business model is often deeply set within the structures of specific health systems. The type of innovation will also determine the quantities of funding necessary. For example, a long running venture or service based initiative may require a long term funding model whereas public health campaigns or social movements may not need the same kind of long term business model.

Figure 13: Main barriers identified in health and social care during mapping 1



Forms of funding available to health and social care innovations are similar to other forms of social innovation and include: grant funding, investment capital and returns from revenue.

Despite the clear variations between funding contexts there are discernable similarities that can be drawn out. For instance, funding challenges were the most commonly identified barrier encountered by social innovations in mapping 1 (see Figure 13), with 37% of the mapped interventions naming funding as an issue. However SI DRIVE empirical research suggests a more complicated picture of the way in which innovators experience funding availability is needed.

Innovations frequently need resources in their early stages in order to develop, pilot and evaluate their innovation, however, as explored in the chapter on process dynamics, there is a transition that occurs between the pilot stage and longer term initiatives. This earlier stage often requires some form of investment, either from private, institutional or public sources. In the longer term this needs to be developed into a model that is sustainable in its context, for example through commissioning,selling it to the public or by institutionalising it into the way that health and social care is provided.

Health and social care innovation can suffer from what has been termed ‚pilotitis', which is particularly true of the E/Mhealth practice field but is also present elsewhere[xl]. This refers to innovations which find support to pilot, but can find it difficult to fund the transition to a more sustainable business model. This can mean they end up failing. The same funding gap for social enterprises to grow is identified by Chertok et al (2008)[xli].

For example, the UK based case study Doc Ready[xl] was given short term grant funding. This paid for the development of a stand-alone app that could be used by patients. However the money ran out and the app itself required on-going support in order to ensure that patients, whom the app targeted, knew of its existence and therefore would access it. Whilst the app was known to healthcare professionals who could recommend it, the lack of funding meant that publicity and further app development could not be resourced. As a result of this and other factors, such as the lack of health system endorsement, the app experienced a more modest growth trajectory. This ilustrates the need for longer term funding options for health innovations which go

beyond the pilot stage and which also do not necessarily require the innovation to be at an ‚investment ready' level.

Innovations that are rich in other forms of capital may find that it is easier to secure funding or it may reduce their need for it. We see in a number of cases[xl] that political capital can help initiatives to secure funding sources that help them to scale up their activities or support them in their journey either towards stand alone sustainability or towards institutionalisation. Alternatively, innovations may acquire non-financial capital which can mean they do not need as much finanical captial. For example, buy-in from key stakeholders could provide free or reduced office space or the loan of infrastructure.

6.3.2 Physical capital

Physical capital considers whether or not an initiative has access to assets such as buildings and tools which are necessary for the innovation to function. Within this we would include technological assets, both hardware and software which are necessary for the innovation to operate. Innovations that are set up by professionals within a healthcare context are frequently rich in physical capital as they have access to equipment and facilities that would otherwise be difficult to access without creating partnerships with hospital administrators, or professionals of some description, or indeed without considerable investment of financial capital. For instance, the case study example of Self-dialysis[xl] shows an innovation which was enabled by the availability of physical capital to the innovators. The individual who first came up with the idea of administering dialysis to himself, through partnership with professionals, was able to access a dialysis facility, the key physical capital needed by this social innovation.

6.3.3 Political capital

Political capital can be of significant importance to the progress of an innovation. Innovator access to policy makers and their ability to influence the political climate, or align themselves to it, can be highly important for securing ‚buy-in'. Innovations do not only respond to context, they help to change it[xlii], and as such political capital can help innovators to adapt their environment. Political capital can help innovations by creating spaces for experimentation, it can help to overcome risk aversion and in some circumstances it can help to reorganise systems through changes to structures such as legislation and regulation.

In the Russian case of ‚Protection'[xl], for example, the project initiator took on an advocacy role that helped to create changes to Russian legal frameworks in order to enable government to fund new business models in social care provision. This change occurred because political capital was utilised to affect law which ultimately helped the innovation to sustain itself. Regulatory frameworks have the potential to be a signficant barrier to social innovation in the field of health and social care, albeit regulation is also a key way in which health systems attempt to guarantee the safety of patients and the wider community. One attempt to resolve this tension is the use of what has been termed ‚right touch' regulation in finance, such as the UK's Financial Conduct Authority's ‚regulatory sandbox', which offers a more flexible approach the regulation of financial innovation which may well have practical applications in health and social care.

Protection (Russia)

This project established a form of residential care for elderly people which provides both health and social care services. This was set up by a social enterprise rather than the government and looks to improve quality of care for older people. It was inspired by a demand from society for better quality care for older people. This is a new model of care in that it was the first such residential facility within the Russia; as such whilst this model is not new globally, it is new

The South African example Keth'Impilo[xl] also shows the importance of political capital and how it can help to overcome barriers such as bureaucracy which can be a significant hinderance on innovation. The South African healthcare system is highly bureaucratic. However, with ‚buy-in' from the ministry, Keth'Impilo was able set up a parrallel health infrastructure designed to trial HIV/Aids programmes which could then, with the backing of the National Department of Health be moved into the health service.

Political capital has a strong interrelationship with other innovation assets. For this reason political capital tends to be most useful in the way in which it facilitiates, and can be translated into, other forms of capital

such as financial, human or cultural capital. However, it should be noted that political capital can also be unstable, as governments or their strategic priorities change, therefore innovations can find that their fortunes change.

6.3.4 Knowledge capital

Knowledge of various kinds are important assets in the process of innovating. Health and social care innovation frequently requires the complex cumulation of distinct and differing competencies. For this reason, it is often the case that partnerships are necessary in order to provide the different forms of expertise needed to put a solution into practice. For example, the Italian case of Vitaever[xl] required diverse bodies of knowledge in order to operate and this asset was built through a combination of partners which included: Nethical, a non profit organisation, The ANT Foundation, a non-profit that has developed large hospitals; The University of Bologna, who focused on research and development; Amazon, who also had a role in ensuring the security of the data; Welfare Company and the One Family Group, which work on social welfare. In addition, a co-design dimension brought in knowledge from end-users. The combination of these competencies was a key asset to the development of this innovation and to its succes.

6.3.5 Human capital

Innovators require human resources in order to be able to effectively implement their solution. This is not just people, but people with the relevant skills to be able to contribute effectively to implementation of the innovation. As explored above, innovations in health and social care often require people with distinct skills sets. Indeed in some cases they also need to be able to recruit enough people to be able to scale their solution as it grows.

The health and social care environment can be seen, in some contexts, as suffering from a lack of human capital. Some countries have found that with increasing strains around health and social care, it is harder to provide the nescessary resources. This appears to have resulted in a rise in innovations that focus on the use of voluntary labour in order to care for people. Examples of this include the Kerala based, ‚Neighbourhood Network in Palliative Care'[21] and the China based example of Voluntary Care for Elderly People[xl]. The Neighbourhood Network in Palliative Care is a community-led initiative aiming to provide home-based palliative care to all those in need the state of Kerala. The majority of care is provided by volunteers who deliver free medications, train family members in basic care, and provide spiritual and psychological support. Both of these initiatives are able to increase their access to human capital with less strain on financial resources by utilising volunteers. In these examples, access has increased without increasing cost, but there may be possible implications for the quality of the care provided.

Human capital can help to build knowledge capital; as the numbers of people involved in the innovation increase so too can the knowledge base that they contribute. However increases in human capital, of course does not have to mean that there is increased knowledge, particularly where the human resources have overlapping or insufficient competencies.

6.3.6 Cultural capital

Throughout the SI DRIVE project ‚culture' has been identified as one of the most significant barriers to change. Culture, of course, is not bounded and monolithic, rather there are many different ‚cultures' that effect the health and social care landscape. For example, cultures among professionals, cultures among policy makers and citizens. It can frequently define expectations for how health and social care systems behave, but can also be instrumental in defining social need as cultural priorities become visible or invisble.

During the SI DRIVE policy and foresight workshops culture was defined as a key constraint in developing innovations. It was frequently the case that innovators found resistance to change among their target audiences. This was particularly true in practice fields that require significant shifts in the ways that people behave, for example when trying to create more integrated healthcare models and when trialling new models of care [ii]. If we look again at the Self-dialysis[xl] case we can see an example of this. Healthcare professionals found it difficult to accept this new way of doing things because of percieved risks introduced by patient self-

[21] Included in the mapping 1 dataset

management. Attempts were made by the initiators to change structures and effect cultural change, but this was identified as a key challenge facing the further development of this innovation.

Change agents are individuals who work as advocates of change within organisations or systems. They frequently come at things from the position of wanting to entrench innovative, new and better practices. Change agents are often spoken about in health and social care, and indeed this research suggests that change agents can help to develop cultural capital and can support cultural shifts[xliii]. For exmple, in the UK the NHS has supported the development of ‚Right Care', an change agent organisation which focuses on understanding how to get people to change their working practices. Notably cultural capital is however also linked to assets such as human capital, and knowledge capital in that people, and the knowledge and skills that they have, are often an important dimension to utilising and mobilising cultural capital.

7 ACTORS AND GOVERNANCE

- **Collaboration between actors and organisations is highly important within health and social care, particularly in order to ensure that innovative projects have access to the innovation assets that they need to be successful. There is rarely one single actor or initiator behind a successful social innovation in health and social care. Key actor roles can broadly categorised as professionals, citizens, policy makers and technicans.**

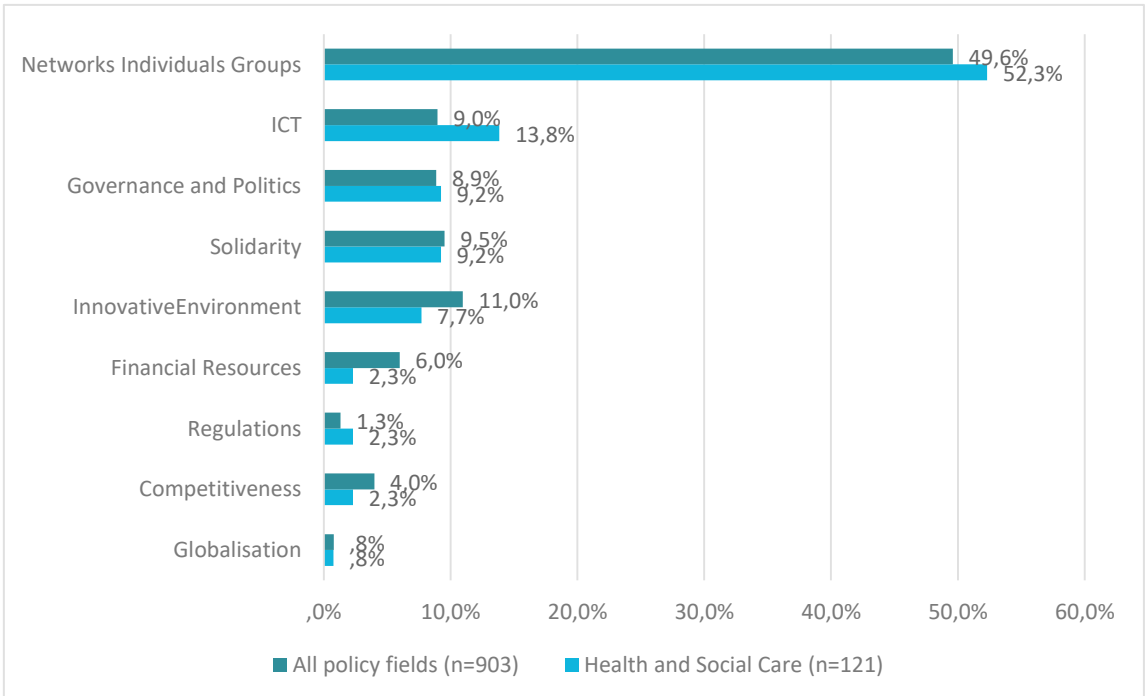
- **Defining actor's roles can be difficult especially when innovations involve significant collaboration. Innovation actors can play multiple roles in an innovation, and the relationships between actors and innovations are often fluid in nature. This illustrates why we must build our understanding of the roles that actors play in health and social care innovation beyond identifying sector that they come from.**

- **Charismatic leadership can be an important driver of innovation and we find that it is particularly important when looking to develop a ‚new model of care'. However, charismatic leadership is not always necessary and appears to be a less important factor than collaboration.**

As we have seen above innovation process dynamics are frequently related to the kinds of innovation ‚assets' available to innovators. One of the key ways in which innovators can build these assets is by convening a suitable group of actors to be involved in the project. We define the actors involved in the project in a flexible way. While shareholders, initiators, or delivery partners are actors with formal roles in the project, there are also actors with more informal and flexible roles that can be equally critical to the success of the innovation.

Actors in health and social care are drawn from diverse backgrounds, and indeed our quantitative analysis suggested that actors are often one of the main drivers of social innovation. As we can see from Figure 14 , ‚networks individuals and groups' were clearly identified as a main driver by many innovations. Whilst this was a key driver in all policy fields, it was particularly present in health and social care where 52% of innovations identified this as important to their innovation. The importance of ICT was also more present in health and social care than in other fields which is likely related to the importance of E/M health as a current practice field of innovation in the sector.

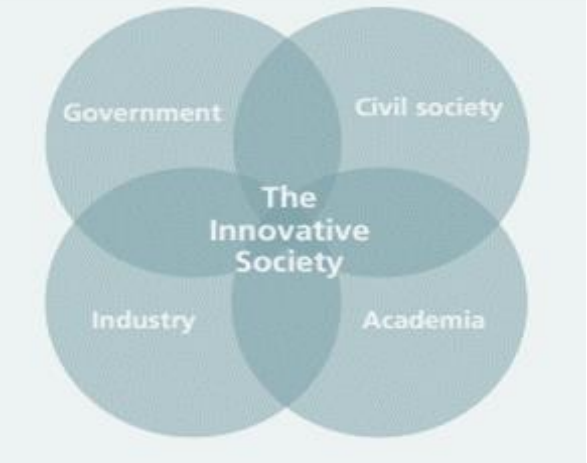
Figure 14: Key drivers of innovation identified in mapping 1



We see in all of the practice fields of health and social care that cooperation is a signficant dimension of many initiatives. This is particularly the case in the practice field of E/M health which often requires that a number of different forms of knowledge are in place in order to build the solution: the technical expertise in order to build the solution, the understanding of how service-users would engage with such a project and the health expertise in order to be able to drive the solution forward.

Whilst it can often be helpful to typologise actor types and their roles, it should also be stated that considering actors and interaction in social innovation requires an understanding of the flexible and relational way in which different people and groups come to collaborate. Some typologies of social innovation actors, such as the quadruple helix model (see Figure 15)[xliv], look to group actors by the sector that they are drawn from. However, we believe that it can be useful to shift this to an approach which looks at the role that is being played by actors. Frequently there are connections between the skill set and the sector (see policy maker innovators), but the important element is the skills that are being utilised in a particular circumstances, rather than the specific sector.

Figure 15: Quadruple helix model (Source: TESPIE)



7.1 ACTOR ROLES IN HEALTH AND SOCIAL CARE

When we talk about the actors involved in social innovation it can be easy to think specifically of the initiators and of those who are formally involved in the social innovation. However, the identification of the initiator is frequently complicated, not least because many innovations begin as partnerships between different actors to facilitate new ways of working, as can be seen in relation to integrated care. The examples of ‚Better Together' and ‚Healthy Kinzigtal' (see Section 5.3.2) are partnerships[22] between different organisations and groups and it can be difficult to see exactly which actor(s) the initial idea originated from.

The case of ‚Doc Ready' (see Section 4.2) also reflects this. In this case a piece of research conducted in Brighton and Hove identified the problems around young people's mental health. After the issue was identified, funding became available through a partnerhsip of organisations which created a challenge prize for E/M health initiatives that dealt with these issues. The prize was later won by another partnership of organisations which had developed an idea for an app which targeted young people and helped them to talk to doctors. In this example it is difficult to identify a single ‚initiator'. Importantly, health and social care innovation is often highly collaborative and actors do not only help to develop ideas, they also help by removing barriers or

Better Together (Netherlands)

Better Together in North Amsterdam (BSiN) is a program focused on the development and implementation of integrated health and social care delivery in the district of Amsterdam-North. BSiN is a multi-level approach (client, professional, organization, financial) which aims to improve self-sufficiency and health and social participation of residents with multiple and complex problems. It emerged because of an identified mismatch between the supply of care and welfare services, and the needs of people in Amsterdam north.

[22]Healthy Kinzigtal (Germany) and Better Together (Sweden) are two examples of initaitves that focus on population health and demonstrate that integration at this scale is a complex process that requires optimum political, professional/ institutional and social cooperation and collaboration.

improving solutions. Therefore, there is a spectrum of different levels and types of involvement that actors can have.

However despite this, we find that it is possible to categorise the roles that people play when they contribute towards the development of an innovation. Below we lay out four categories of role that we found to be helpful in considering the different actors within the field of health and social care innovation. In Table 2 below we outline our framework of social innovation actors with a description, what motivates them, the role that they often play and the kinds of collaboration that they often need. These categories will be explained in more detail in the sections below. Motivations are particularly important in defining actor roles, as actors can move between different roles depending on their motivations and the skills that they bring.

Table 2: The four different roles of social innovators

	Professional	Citizen	Policy maker	Technician
Description:	Someone who is using their experience as a doctor, nurse, social worker, carer or other health or social care delivery professional in order develop or contribute to a socially innovative initiative.	A person who is using their personal experience as a patient, as a service user, as a carer, or as an observer in order to develop or contribute to a socially innovative initiative.	Someone who approaches health and social care innovation from the perspective of someone who is making policy e.g. through commissioning, developing institutional, organisational or government strategies or frameworks.	A person who brings specific technical expertise - as a provider of health and social care- in order to develop or contribute to a social innovation. This can take many forms including organsiational or managerial knowledge, understanding of monitoring and evaluation or ICT skills.
Motivators:	Professional experiences of unmet needs or non-optimal provision and insight into how things can be done better are often motivators.	Personal experiences of inadquate health and social care, or of gaps in care, can be a major motivator.	A strategic need to balance the competing demands of health services is often a motivator.	An identification of how skills and expertise can be used to create, or contribute to, an innovative project often motivates technicians.
Role:	Understands the processes of and has specific expertise needed for health and social care delivery and can see gaps and room for improvement.	Offers insights into how people interact with and experience health services as, for example, patients, carers, loved ones. They can render problems visible that had not been noticed or not previosuly understood by others.	Policy makers often provide supportive frameworks for innovation through funding, regulation or by encouraging institutionalisation. They are often gatekeepers and serve to remove barriers (e.g. regulation or lack of funding).	Offers specific technical skills in order to develop, support, or evidence the solution. This includes social innovation intermediary support (e.g. through accelerator programmes).
Requires:	Professionals often require others to help refine their solution, develop business models or to get buy-in. Citizens or technicians can help to refine the solution right, or it can mean policy makers removing barriers.	Citizens often require professionals or other actors to help them develop their solution further, and to get the support they need to engage other stakeholders and get buy-in. They frequently lack access to and knowledge of health system processes.	Policy makers frequently need other actors to ensure that their contributions to innovation are grounded in practice and experience and in order to build the technical knowledge necessary to build a working solution.	Technicians often lack the specific knowledge of the problem to be able to develop a solution alone, often needing others to provide insight. In addition, they can require help from policy makers to overcome barriers.

7.1.1 Professionals

By professionals we mean those who specifically have a role in health and social care delivery. This includes the doctors, nurses, social workers and carers who deliver treatment and care on a day-to-day basis. Professionals are frequently motivated by the experiences of healthcare provision, and when they initiate social innovations they are often responding to a problem or blockage that they encounter and want to see addressed.

The case of ‚Physical Activity on Prescription' was developed in Sweden by a doctor who was appointed to a role in ‚preventative medicine'. Seeing a possibility to improve the services provided to patients, this doctor developed a model of social prescribing which attempted to offer patients prescriptions for exercise regimes. Patients were supported in their physical activity in the way that doctors would support other treatment options and this created a clear medicalised dimension to exercise. Professionals can also play a strong role as gatekeepers when solutions are developed or suggested by their patients. In our Self-dialysis case study, for example, a patient suggested an idea which was then enabled by their doctor who bought into the solution and helped provide access to the physical capital (dialysis wards) necessary for the solution to be implemented. However, later on professionals became an obstacle to the roll out of the innovation when they began to object to the underlying philosophy of the intervention and to the drive from policy makers to entrench it. This demonstrates the heterogenity that can exist within particular groups. Professionals, and indeed all groups of actors, are not homogenous in their outlook or involvement. There are sub-cultures and groups within these actor types many of whom need to be engaged with in order to drive solutions forward.

Professionals have important roles to play in health and social care innovation both as the initiators of projects but also as contributors. They have an understanding of the internal cultures of health and social care systems. They understand the challenges of working within the system and of engaging with patients. They frequently are able to provide clear professional knowledge not only of the medical aspects of health and social care innovation, but also of the relational aspects of providing healthcare. For example, knowledge in the ways in which their environment functions and the culture among professionals.

Vitaever offers insight into this role. In these cases health administrators and other providers of care contribute to the development of initiatives by providing insight into their experiences of the technology. The company after an initial roll out realised that many professionals found the technology difficult to use, and therefore the initiative consulted with professionals in order to refine the product. Professionals played similar roles in other case studies including MomConnect.

7.1.2 Citizens

All people who use health services have some insight into how they use them, and what they expect. Those who have more experience of using them, for example if they suffer from a chronic condition, may have more experience than those who rarely interact with health or social care services; albeit it is sometimes people who may most need health and social care support who do not access services. Our swedish Self-dialysis case is a clear example of a citizen initated intervention, one that was developed by a patient whose experiences of dialysis led him to demand care that better suited his lifestyle. Importantly, like many citizen innovators he required the assistance of others to make his solution a reality.

People don't just use health and social care services directly. They also know others who use them and are affected not just as patients but also as carers and as loved ones. The desire to improve care as someone with a ‚citizens' outlook is a clear motivator for many innovations. Even when the role that an actor plays in the development of an intervention is technical, it is often as a ‚citizen' that people are motivated to make a difference.

Take the example from China of Smart elderly care. The initiator of the project was an individual with technical experience of how to run a business and for the majority of the life of that project the role that they played was technical. However, the motivating factor for developing the innovation was the death a former teacher. It was a personal motivation which stemmed from the experience of losing someone close, which suggests that the project initiator also inhabited the role of 'citizen'. This demonstrates how many people come to play multiple roles throughout the life of an innovation based on the skills and knowledge that they have. This

illustrates why we must build our understanding of the roles that actors play past the mere sector that they come from.

Citizens can provide crucial insight into whether, and how, initiatives can or should work as their interaction with services so often determines their effectiveness. In the same way that practitioners provide insight so too do patients. As we have previously discussed, in the Doc Ready case study the consultation with young people who offered the service-user perspective was crucial to the success of this innovation. Citizens frequently play this role by participating in workshops or through consultation throughout the innovation process.

7.1.3 Policy makers

Policy makers operate at multiple levels from central government strategising to local commissioning. However, we would also consider that those who set the policies of particular organisations such as insurance companies or private hospitals can also be seen as ‚policy makers'.

Policy makers are likely to have insight into the workings of the health service and into the priorities that might be present. However, they can also benefit from input from others, and particularly the real work and practice based experiences of professionals and citizens. They can help to create funding streams for innovative initiatives and also help to create buy-in. They can act both as an initiator and a facilitator of social innovation[xliv]. They often contribute political capital to an initiative, but also can have an impact on a number of other innovation assets by making resources available.

Policy makers have had a significant role to play in initiating public policy social innovations in health and social care in their role as providers of public services. Significant examples of policy maker initiated social innovation include the development of and rolling out of personal health budgets[xlv] and of smoking bans[xlvi] in the UK. In Ethiopia, faced with staffing shortages and a need to reduce maternal and infant mortality, the Ministries of Health and Education worked to establish a Masters of Science programme in which medical professionals could train in Integrated Emergency Surgery and Obstetrics[xlvii]. These trained individuals were then empowered through regulatory changes to carry out cesarean section and other procedures that were once strictly to be performed by medical doctors. This offers a clear example of where public policy makers are able to initiate socially innovative initiatives in the health system.

This Ethiopian example also demonstrates that new models of care frequently require alterations to regulation as they often disrupt existing systems and moving outside of existing regulatory boundaries. As such changes in legislative and regulatory frameworks can also be an important enabler for social innovations. In the case of ‚Protection', legislative changes were necessary for the provision of the solution so that a social enterprise would be able to provide services that had previously been provided by government.

Policy makers have the ability to facilitate a culture of innovation by creating infrastructure and by removing barriers. It is increasingly the case in Europe that policy makers are working to establish innovation teams or programmes within health systems. Examples of this include NHS Innovation which includes an accelerator programme, a network, challenge prizes, regional innovation funds, and the development of 'innovation test beds' throughout the country . In Sweden the innovation agency, VINNOVA, an arm of the Ministry of Industry, financed a programme to facilitate the commercialisation of healthcare innovations within the Swedish health system. Our 'House of Michele' case study from Italy, was enabled in the first instance by a regional experimentation strategy. The case of House of Michele shows the importance of policy makers at the initiative level, namely their capacity for buy-in. This model was found to be a successful and effective way of providing residential care, however growth and diffusion has been difficult to find:

House of Michele (Italy)

House of Michele is a residential facility for 12 elderly persons. It integrates the residential and home-based health and social care services offered by the health district. The key goal of this experimental project is to validate the effectiveness of a new type of residential service, which offers temporary hospitality (between seven and ninety days) for "frail elders" with moderate care needs. The design of the facility recreates a familiar and comfortable environment in which elders reduce their social isolation while receiving the care they need.

"despite a favourable normative framework for integrated and home care services, regional policy makers keep allocating the main part of regional health and social care budget to traditional residential services. [xl]

Support for health and social care innovation requires more than just supportive frameworks for experimentation. It also requires cultural change. In this sense policy makers must also 'buy-in' to the project, to see its worth and in some cases to advocate for it. We can see the value of this 'buy-in' in cases such as MomConnect, where the Minister of Health encouraged and facilitated the rolling out of the initiative both nationally and internationally. In the case of Smart Elderly Care the alignment of the initiative with contemporary government agendas had a significant impact on the level of ‚buy-in' that the project received. The initiatve was the direct recipient of policy designed to enable it. Policy makers have endorsed this idea as a good example by highlighting it as a case study and offering contracts to the parent company to deliver services. They have demonstrated this ‚buy in' in a number of ways including through the purchasing of services, and favourable fiscal and taxation policies[xl].

7.1.4 Technicians

Technicians are those actors who have technical knowledge from outside of the health and social care system. They might be experts in developing new organisational models or have ICT capabilities which allow for the development of new forms of E/M health technology. They provide important forms of knowledge and also provide input into new networks.

Technicians are often motivated by a desire to use the skills that they have in order to help improve health and social care. The forms of skills that they provide are diverse and can include knowledge around how to create an evidence base. Their skills can also come in the form of understanding of how to develop ideas into initiatives. In this sense innovation intermediaries can be considered to be ‚technicians'.

Technicians - and particularly those with ICT skills - were particularly prominent in the field of E/M health where technological knowledge is often necessary in order to build solutions. These ICT focused technicians frequently have to partner with others or create routes to incorporate other knowledge in order to build a successful solution. In E/M health it is not unusual for the technician to be one of the initiators of the solution. This was certainly the case in examples like LIFEtool and Smart Elderly Care. In examples from other pratice fields, it was less common to find technicians among the initiators,instead they appeared to be incorporated into projects when there was specific requirement for their skill set.

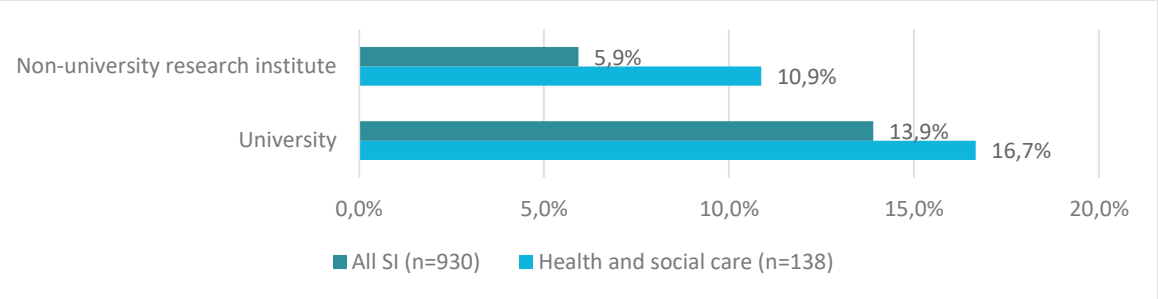
However there are examples of ‚technician initiators' outside of E/M health too. The South African initiative Keth'Impilo was established by a ‚technician': a person with specific expertise around finance who - motivated by a strong desire to help tackle the HIV/Aids epidemic - sought to use those expertise to establish a mew model of care in which innovative approaches to healthcare could be trialled outside of the highly bureaucratic health system.

Health and social care is interesting because research institutions[23] appear to be more present in this policy field than others as we can see from

[23] University and non-university

Figure 16, below. Indeed we found that many of the case studies that we examined included research institutions frequently taking a ‚technician' role such as an ability to monitor or evaluate progress, information technology development or design expertise.

Figure 16: Cases from mapping 1 that included research institutions among partners.



Vitaever is an interesting case because of the many different roles of technicians in this project. Vitaever was developed by a medical social enterprise, in collaboration with a technology company, who worked together in order to create more efficient and effective provision of homecare as well as greater levels of communication between healthcare providers and families.

However the project also incorporated knowledge from The University of Bologna, who focused on research and development, most specifically on the encryption of data on the cloud and Amazon, who also had a role in ensuring the security of the data. Importantly interviews suggested that Amazon, not only contributed their capacity to ensure security, but also supported the legitimacy of the inovation because of its global reputation. This offers an example of where the profile of a technician helped to develop a kind of cultural captial which allowed for a greater acceptance of the initiative among the public.

Technicians have an important role to play in providing knowledge capital but, because they come from a variety of different sectors, they can also offer access to new networks that projects otherwise wouldn't have access to. In this sense they can also have a strong role to play in contributing cultural and political capital.

7.2 CHARISMATIC LEADERSHIP

As we can see above, social innovation in health and social care is often highly collaborative. It also frequently involves a number of actors and organisations working together in order to build a solution. As such it can be difficult to determine governance structures within these fields as there are high levels of variation according to the specifics of the context, the availability of innovation assets and the kinds of actors involved.

However, we do find that charismatic leadership is a common feature of health and social care innovation. Though it is important to note that it is not always present, charismatic leadership can provide direction to an innovation and can also help to build networks, as one enthusiastic individual acting as an advocate can often be an effective way of communicating the worth of a project.

The importance of charismatic leadership appeared to be particularly strong when trialling new models of care[xl]. Cases including House of Michele, Self-dialysis, Protection and Keth'Impilo all define the leadership of key individuals or organisations as being an important driving force in establishing and validating new models. Within the Italian example, particularly, charismatic and trusted leadership was seen as being key to the success of innovations within this practice field of new models of care. This was because solid and long lasting trust networks were frequently required for other actors (e.g. patients and commissioners) to feel comfortable enough to engage with the experimentation.

8 PROCESS DYNAMICS

- **In health and social care initiatives can have an impact by themselves. This can be through mechanisms such as institutionalisation, the selection of the innovation by service users or others, and by addressing, or working in conjunction with new and developing social values, needs and expectations.**

- **However, social innovations can also have a collective impact, working together to bring about social change, both within and across practice fields.**

- **This understanding of collective impacts is important because it helps us to identify what mechanisms of change can be nurtured in order to try and ensure that social innovation has the best chance of tackling some of the signficant challenges that health and social care systems face.**

- **Mechanisms of change within health and social care relate to the inputs and processes of social innovation, the drivers of social innovation, and the outcome mechanisms of social innovation. Mechanisms of change include learning, variation, selection, conflict, tension and adaptation, planning and institutionalisation, diffusing of technological innovations, competition and cooperation.**

8.1 INDIVIDUAL AND COLLECTIVE IMPACTS

By considering the journeys of individual innovations and of collective practise we can start to understand the complexities of how social change comes to create change. We consider innovation both:

1. **Individually**: Each individual initiative has the potential to create social change through its direct impacts upon society: by reaching many people or by reorganising the way in which health and social care is delivered. A good example of this is the Global Alliance for Vaccines and Immunisation (GAVI), initiated by the World Bank, which is a clear example of a health and social care innovation which has had considerable impact and created social change, particularly upon reducing the number of young people who have died from preventable diseases[xlviii].

2. **Collectively**: Initiatives can also create social change collectively, contributing to the development of innovative ‚trajectories'. Collective innovation trajectories demonstrate the efficacy of particular approaches and can cause greater proliferation amongst them; each one of which has the potential to push the boundaries of innovation further. This concept lies behind our exploration of practice fields. Indeed in our practice field of E/M health we can see an example of a field which has began to fragment into ‚sub-practice fields'. As the use of technology in providing greater access to quality health and social care is growing we are starting to see new avenues of innovation springing up. Telemedicine, for example, could be conceived of as a practice field of its own.

Considering the practice and impact of innovations in a collective way can help us to understand the contribution made to a field by innovations that do not necessarily reach scale, but which still make a contribution through their example, through the knowledge or new values and expectations that they have created.Looking at innovations collectively also helps us to see the direct effect they have on their beneficaries, but also how they contribute to the wider field of innovation and the influence they have on new pathways of experimentation.

8.2 MECHANISMS OF SOCIAL CHANGE

Through the empirical research of the SI DRIVE project we have found that many mechanisms of change have direct relevance for how health and social care innovation creates impact. In particular we find that many of these mechanisms have direct relevance to how we come to change social values, reveal social needs or change expectations. They frequently offer people new ways to think about how to provide health and social care, what they want - and perhaps more importantly - what they deserve and should expect from health and social care. Informed by the work of Wilterdink (2014)[xlix] the SI DRIVE project has considered nine specific mechanisms of social change. These are:

SI DRIVE: Mechanisms of social change

Learning: Actors trial something, adapt it, realise mistakes and apply new ideas. This results in new knowledge which drives new practices.

Variation: Variations on ways of doing things can create new ideas by demonstrating the wide applicability of one approach. Alternatively a variation can mean hitting upon a new way of working that can help to create a new parrallel route of innovation.

Selection: Selection incorporates the process of of adoption, diffusion and imitation, but also processes of decline and death of initiatives.

Conflict: Social change is often viewed as the result of the struggle between a predominant way of doing things or new ways of doing things**. This can therefore make adaptation necessary.**

Tension and adaptation: In structural functionalism social change is seen as an adaption to some tension in the social system. **Planning and institutionalisation:** Social change may result from goal-directed large scale planning, by governments, bureaucracies, and other large scale organisations. Planning implies institutionalisation of change, but institutionalisation does not imply planning. **Diffusion of (technological) innovations:** Some social changes result from innovations adopted in society, may be technological invention, scientific knowledge, but also new beliefs, ideas, values, religions, in short ideas.

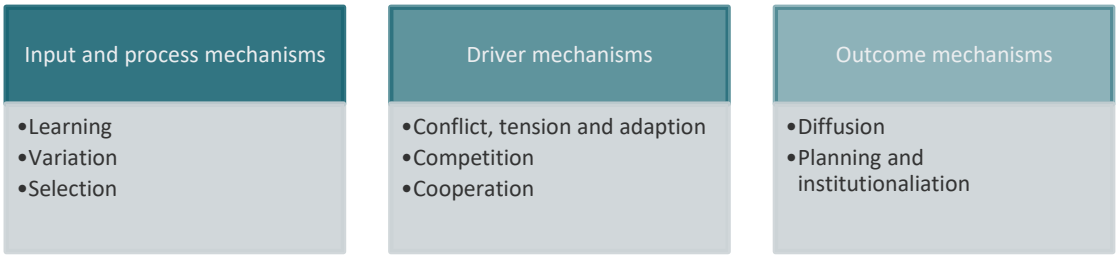
Competition: Seen as a powerful mechanism of change when it offers competitive advantages.

Cooperation: Can also provide a basis for social change when a group can use their collective assets to drive change.

Diffusion of innovations: Some social changes results from innovations adopted in society such as new beliefs, ideas or values.

Planning and institutionalisation of change: Social change may result from goal-directed large scale planning, by governments, bureaucracies, and other large scale organisations.

The above mechanisms of social change can be grouped into types, for example[i]:



Mechanisms of social change can **include i. input and process mechanisms, ii. driver mechanisms and iii. outcome mechanisms.** Within the health and social care policy field the line between these different types of mechanisms of change is not clear. Mechansims of change frequently work on one another and with one another to create change in complex systems. Whilst it can be useful to describe the different types of mechanism at work, such a typology is not clear cut or definitive because of the considerable overlaps.

As discussed above social change can happen at the level of the initiative or it can happen as the collective result of a number of initiatives which drive a kind of ‘,collective trajectory‘. Likewise these mechanisms of social change can happen at both levels. For example, learning can occur at the initiative level, but can also create considerable change at a collective level by forming new collective knowledge about how to provide certain kinds of care. Healthy Kinzigtal, for example, one of our integrated care case studies is an example of good practice in integrated care in Germany. The processes that they have used have been carefully evaluated, and it therefore has provided a benchmark against which similar interventions are now judged. This demonstrates the ways in which projects are useful from a learning perspective, not only for the processes used, but also in terms of building our understanding of what can be possible.

In addition, social change can occur in loops: change can be created and then this change provides the impetus for further change. Understanding the interrelated aspects of this is important for drawing out the dimensions of ‚innovation paradigms‘, and the cultural and value based change which often spur on innovation. In this sense we use these groupings loosely as a way of organising the exploration of these concepts. However, exploring process dynamics is complex, and it is therefore not wholly possible to discuss these categories in isolation.

8.2.1 Input and process mechanisms

Learning is a clear driver of both innovation and social change. Innovationrequires new knowledge and understanding to make it happen. Even for a model of care that is new in its context, rather than ‚globally new’, it is rarely possible to simply pick up a socially innovative idea from elsewhere and replicate it without any alteration to that new context. As such learning often needs to happen in order to make an innovation fit a new environment and context. That learning in itself can help to create social change either by ensuring a more successful innovation or by contributing towards a collective body of knowledge on how to approach a particular problem.

In E/M health co-design, and particularly the involvement of end users, has been important in ensuring that individual initiatives (such as Doc Ready and Viatever) are able to have impact. In these examples this codesign element was essential in developing the learning and knowledge necessary to create an effectivesolution. These initiatives have also contributed to a wider understanding about the need for simplicity when building E/M health interventions and the need to rigorously test those interventions before they are scaled more widely.

There are a number of clear pathways for learning in this field which can be conceived of as highly internationalised. Health systems frequently look to one another to find solutions to the problems that they are facing, and we see that health and social care is a field where professionalisation and continuing professional development are well entrenched concepts, even in low income countries and fragile states. For example, there is significant learning in E/M health within and between low income countries. Conferences and networks

can be key pathways for creating new knowledge which we see as being related both to diffusion and to learning.

Learning is also closely linked with **selection** in the sense that an ability to understand impact, and whether an innovation ‚works', can have a strong impact upon whether or not the innovation is ‚selected', whether it is adopted, imitated or even institutionalised[li]. The recommendations made by institutional bodies such as the UKs National Institute for Clinical Excellence (NICE), for example, are frequently based on the ability to demonstrate that an intervention is effective An ability to demonstrate impact is of clear importance. This has particularly been reflected in SI Drive policy and foresight workshops. However many social innovations find it difficult to develop clear evidence of their impact, often because of the level of resource required to do this well and because of the time needed by a new initiative to demonstrate impact. This can be seen to be a barrier to the scaling of innovation.

Learning, is intrinsically linked to other mechansims of social change. Learning can help to create **variation** as, in the process of imitation, people come to build their own learning and take innovations in new directions, providing new pathways and importantly contributing, potentially, to new innovation paradigms. Eventually, as those innovation paradigms are entrenched and understood, new social values and expectations for what healthcare can and should provide develop.

Better Together[xl], an integrated care approach developed in Amsterdam, can be viewed as an exmaple of variation. This innnovation experienced a shift in the understanding of healthcare from a focus on „sickness and healthcare" towards „health, behaviour and participation". This shift is partly driven by a desire to reflect the varying and changing social values of society, but also has had an impact upon the shape that the innovation has taken.

8.2.2 Driver mechanisms

There are a large number of drivers of innovation and social change. As we have seen in the preceding chapters many of these relate to global systemic challenges or key contextual factors. Driver mechansims can be seen as an important way in which social innovation creates change in health and social care.

In health and social care we find that **tension** (and similarly, **conflict**) is a clear driver of social innovation. We see repeatedly across our case study analysis, and particularly in the field of new models of care, a tension between old and new. If we look to the Russian case of Social Geriatric Care (Protection) we can see how an innovation developed from a clear tension arising from an ageing society and a need that developed from both demographic shifts and also from changes in the way that people viewed older people's care. After a national scandal (conflict) pertaining to the treatment of older people in government run facilitiates there was a clear demand for change. This initiative responded to that change by developing a new model of care, one built around a social enterprise model which placed quality of care at its heart. Responding to this social demand in this way helped this innovation to grow as it offered a response to the needs identified by society, and thus helped to resolve the tension and conflict which had arisen.

This tension between the old and the new, or between competing demands, can also be seen as **competition** as older ways of doing things come into conflict with newer ways of doing things. As discussed in sections above, there is a degree to which entrenched culture can be a clear barrier to change - particularly at the institutional level. Competition can be an important route for overcoming this barrier. When innovation is able to demonstrate positive impacts, it is better placed to be ableto compete with other more established ways of doing things. We can see the success of this approach evidenced in the Physical Activity on Prescription case study. In this case,evidence was developed and the initiator convened a social movement which looked to create demand, at all levels, for the intervention. The evidence helped the intervention to ‚compete' with other more established ways of doing things and the movement helped to entrench this understanding.

Competition is also an important driver mechanism in health and social care because it can help to drive new innovations as people seek to build on previous solutions to gain competitive advantage. It therefore builds social change by helping to push forward pathways to solutions and create innovation paradigms. Whilst this is present to some extent across health and social care, we see this particularly in the practice field of E/M health. LIFEtool, for example, shows that competition from other providers of Alternative Augmentative

Communication (AAC) technologies inspired adaptations to the ways in which the technology developed over time. LIFEtool faces competition with large scale companies such as Microsoft and Google who are increasingly focused upon offering assistive technologies. During interviews for the development of the case study, the initiators named competetion as a factor which drives forward improvements in their initiative.

Equally **cooperation** can be seen as a considerable driver of social change. Inmany incidences withinhealth and social care innovation, the creation of new partnerships can be seen as a way of making change. If we look to the E/M health practice field we see this in the ways in which different people with varyingskills come together to build technological solutions. In integrated care we see how cooperation between distinct groups can develop new practices which are highly in demand by service users. This cooperation helped to build demand for more integrated approaches to healthcare, and therefore can then also feed into creating new tensions in the health service which need to be addressed. This then createsan innovation ‚loop' which helps to drive the practice.

8.2.3 Outcome mechanisms

Health and social care is a highly insitutionalised field, and as such **institutionalisation**[24] is often considered a quick route to social change. Importantly there are different kinds of institutionalisation which are operational at the initative level, and the distinction between ‚institutionalised' and ‚not institutionalised' is not as clear cut as might be assumed.

If institutionalisation is when an initiative is incorporated into the wider health system and/or provided by the wider health system then this can mean, it is strongly embedded across the working practices of healthcare professionals, or it can mean that it is occassionally commissioned by the wider health system. However, that definition would be particularly focused on service based social innovations. In the case of other initiatives such as campaigns, institutionalisation may take the form of an endorsement by government, local actors or the provision of resources.

Some examples of institutionalisation are straightforward to identify. If we look at the case of Self-dialysis[xl] in Sweden we can see that health institutions have been a key driver of adoption and **diffusion** throughout the health system, and among health professionals and citizens. Integrated care frequently exhibits institutionalisation, also because of the need to coordinate activities across the health and social care sector[xl].

However,there are some examples where institionalisation has played a less obvious role. In the case of Doc Ready[xl], for example, we can see a case of an App designed to help young people with mental health problems to negotiate their interactions with their General Practitioner (GPs). This was then transferred by the original initiators to a health trust in another part of the UK where it was redeveloped as CAMHSReady[25]. In this caseneither initiative was fully integrated into the health servic, but in each case the health service played a role in the development of the intervention and, to a greater and lesser extent, endorsed the intervention. This can be seen as partial institutionalisation.

Institutionalisation can also be somewhat complicated under those systems that incorporate health insurers as the primary providers of health services because each insurer must individually institutionalise particular healthcare interventions[ii]. In contrast, where there is a national health system in place, a single organisation, such as the NHS, can more readily institutionalise an innovation across a whole country.

Institutionalisation offers initiatives a number of advantages. It can be a fast route to scaling innovation by offering opportunities to engage large numbers of patients, either by institutionaling across a national health service or through insurance companies decisions to mandate specific forms of care. In addition institutionalisation often offers resources, as those initiatives which gain institutional support often have access to health infrastructure and to other resources. In addition, it can be a key way to provide real-world testing and learning opportunities to initiatives, to ensure they can be developed to be as effective as possible.

[24] Institutionalisation in social innovation is the process by which an innovation becomes an organisation or becomes adopted and integrated within an established organisation or institution in the sector.
[25] In the UK CAMHS stands for Child and Adolescent Mental Health Services

Scaling (e.g. through institutionalisation or imitation) can be a way for initiatives to make change, yet they can also create change in other ways: by changing what we know, how we work, or by developing new solutions (see Figure 17). Importantly one of the ways in which social innovation creates change is by shifting the values and expectations of our society, changing our perceptions of how health services should interact with our lives, and changing our approach to our communities, to our loved ones. Institutionalisation can also offer opportunities for transnational scaling. If we look again to the examples of MomConnect[xl] in South Africa[26] or our Self-dialysis[xl] case study[27] we can see an example of where the institutionalisation of an initiative in one context led to replication in other countries. In the case of MomConnect the Minister of Health was instrumental in helping the innovation to move beyond South Africa to Uganda and Rwanda where it also required complementary innovation, in the form of a mobile app made for people who cannot read. Thus through institutionalisation we see not only the scaling of the initiative but also a contribution to the wider practice field and further innovation and social change.

Finally one of the key ways in which institutionalisation drives social change is by helping to create new social values and new expectations for what care should provide. We see that this is the case nationally in that when a new service is adopted by the health service it shifts peoples perceptions of what should be provided. However we can also see it internationally in that when people see another country that has a particular service in place it can in some cases shift the perceptions of individuals about what should be provided to them. The introduction of social prescribing such as our Physical Activity on Prescription (FAR) case from Sweden, for example, through its institutionalisation was leant a legitimacy which made it acceptable as a method of treating people in Sweden, but also came to shape broader expectations and views about social prescription in the rest of the world, contributing to a broader shift amongst the international community in how people see the role of doctors in health and social care.

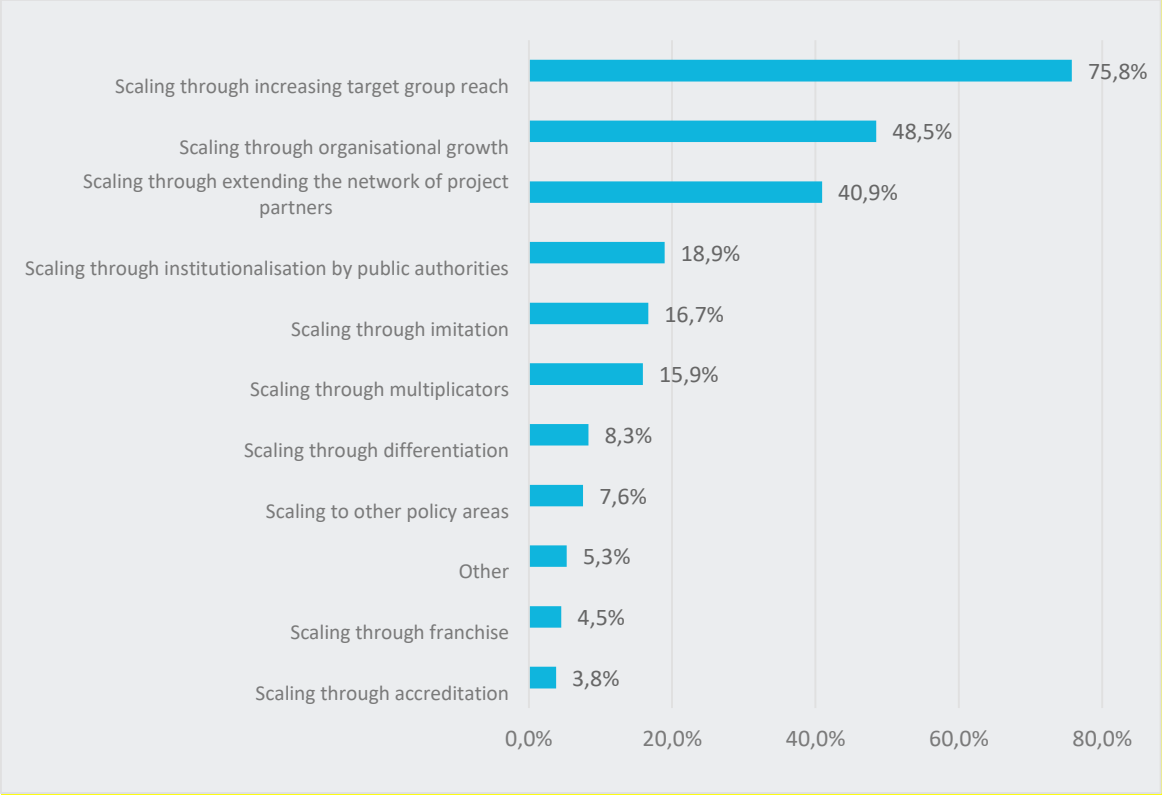
However insititionalisation is by no means the only route for initiatives to scale and it is not always a given that insitutionalisation leads to social change. Figure 17 shows that of the cases mapped during mapping 1[28] ‚institutionalisation' was only cited as a way of scaling for 18.9% of cases. By comparison ‚reaching more service users' and ‚growing the organisation' seemed to be more signficant ways of scaling in this practice field.

[26] See page 9 for more detail

[27] Referred to above

[28] This is not a representative sample of innovation. These figures represent the answers given by parters for our 154 Health and Social Care case studies

Figure 17: Types of scaling recorded for mapping 1 cases (n=132)



As stressed, insitutionalisation is not the only way to create socal innovations, indeed there are many effective innovations that exist outside of healthcare systems and which create sustainable models that can exist without institutionalisation. A clear example of a group of innovations that do this would be self-management technologies: technologies which monitor and allow people to track fitness and other dimensions of health and wellness have become highly popularised. For exmaple, ‚FitBit' gained signifcant market share with 6.7 million paid active users in 2015[lii]. Indeed fitbit can be seen as an interesting example of an innovation trajectory in and of itself. FitBit inspired the development of many other products which utilise similar principles or practices and have addedmore innovations along the way. The FitBit was originally designed as a way for people to monitor and manage their own fitness. However, it now has additional components which can be added which gamify the process of self-management. This is a good example of where there has been a **diffusion** of the concept of gamification - one potentially innovative practice - which has been added to another potentially innovative practice - self management - in order to create a new stream of innovation which combines the two.

In this sense, outside of the clear diffusion of one initiative it is also possible that innovations come to create ‚innovation cascades' where a chain reaction is set off either from one parent innovation or from a collective of ideas and which comes to spawn a number of adaptations.

This is very much the story of how social innovation frequently comes to create change, that ultimately this is often more about changing the underlying social values and expectations of the health service, of the policy makers and the practitioners. Importantly sometimes institutionalisation and diffusion are methods for doing this, and sometimes it is the outcome of other mechanisms of change such as driver mechanisms or input and process mechanisms.

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