transformative social innovation theory
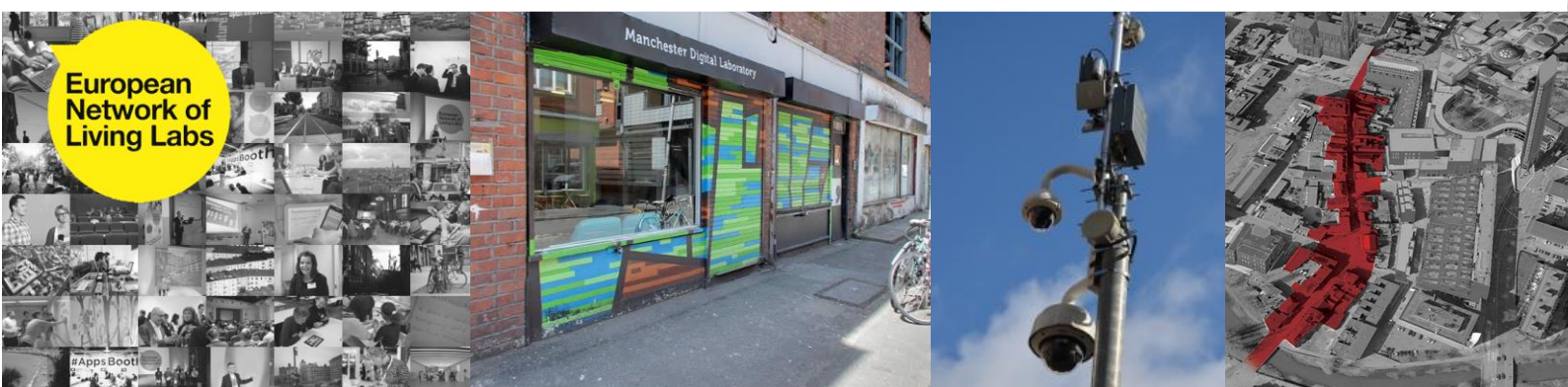
Transformative Social Innovation: European Network of Living Labs

- Summary report

About TRANSIT:

TRANSIT is an international research project that aims to develop a theory of Transformative Social Innovation that is useful to both research and practice. It is co-funded by the European Commission and runs for four years, from 2014 until 2017. The TRANSIT consortium consists of 12 partners across Europe and Latin America. For more information, please visit our website: http://www.transitsocialinnovation.eu/.

About this Document/ Disclaimer:

This is a summary of a case study report on (the European Network of) Living Labs. Both, the case study reports and this summary, were guided by empirical research questions based upon a preliminary conceptual framework of the TRANSIT-project. These questions concern inter alia:

1. Emergence of Social Innovation
2. Transformative Social Innovation dynamics
3. Agency in (Transformative) Social Innovation

This summary presents the interpretations of the researchers, and does not necessarily reflect the views and nuances of the initiatives and respondents themselves. For a full account of each transnational network and local case, including interview quotes and expressed nuances by respondents, we refer to the case study report, which is available via communication.transit@ihs.nl. Both the case study report, as well as this summary document, are the basis for future research activities and publications.

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1. Introduction to the European Network of Living Labs

Living Labs have become an important approach for stimulating innovation in the 21st century. They offer a platform for linking research and practice (across public, private and community sectors) and by doing so, they intend to develop innovative approaches for dealing with a variety of (often socially pressing) issues. Besides that living labs are themselves subject of (academic) study. The academic field of study about living labs is however, still rather insignificant in terms of impact and quality (Schuurman *et al*, 2015). Conceptually it is mostly rooted in more established theories on innovation including Open Innovation and User Innovation (ibid) and it is considered part of the broader smart city approach (Schaffers *et al*, 2011).

The European Network of Living Labs (ENoLL) is a formalised network and international federation of benchmarked living labs in Europe and worldwide. ENoLL identifies 5 key elements that should be present in a living lab: 1) active user involvement; 2) real-life setting; 3) multi-stakeholder participation; 4) a multi-method approach and 5) co-creation. Even though it is not a formal requirement, in practice there is usually a strong focus on the use of digital technology and data. ENoLL aims to support co-creative, human-centric and user-driven research, development and innovation in order to better cater for people's needs. The core of EnoLL is formed by its members and partners which vary between a) effective members b) associated c) adherent members and d) strategic partners.

This report summarizes the findings of a study on the emergence, social context and agency aspects of the ENoLL and of living labs in two cities, both adherent members of ENoLL: the Eindhoven Living Lab (the Netherlands) and the Manchester Living Labs (the United Kingdom). The Eindhoven Living Lab is used as a label for a collection of various collaborative initiatives focusing on social challenges and the use of technology and data in the city. It is also seen as an *approach* to facilitate city wide learning and collaboration and does not refer to one dedicated physical place. The Eindhoven Living Lab is to a large extent funded by the municipality and politically acknowledged in the most important formal policy document of the city (the coalition agreement, Eindhoven, 2014) that describes the city in this context also as ambitious, a smart city, focusing on pioneering, innovation, sustainability, cooperation and dealing with societal challenges. There are currently three organisations in Manchester associated with the Living Labs concept: MadLab, Future Everything, and the Shed. The latter two are members of the European Network of Living Labs (ENoLL). A fourth organisation, Manchester Digital Development Agency (MDDA), pioneered Living Labs in the city, and was a founding member of ENoLL; but MDDA closed in 2015 following funding cuts and re-organisations at Manchester City Council, which funded MDDA.
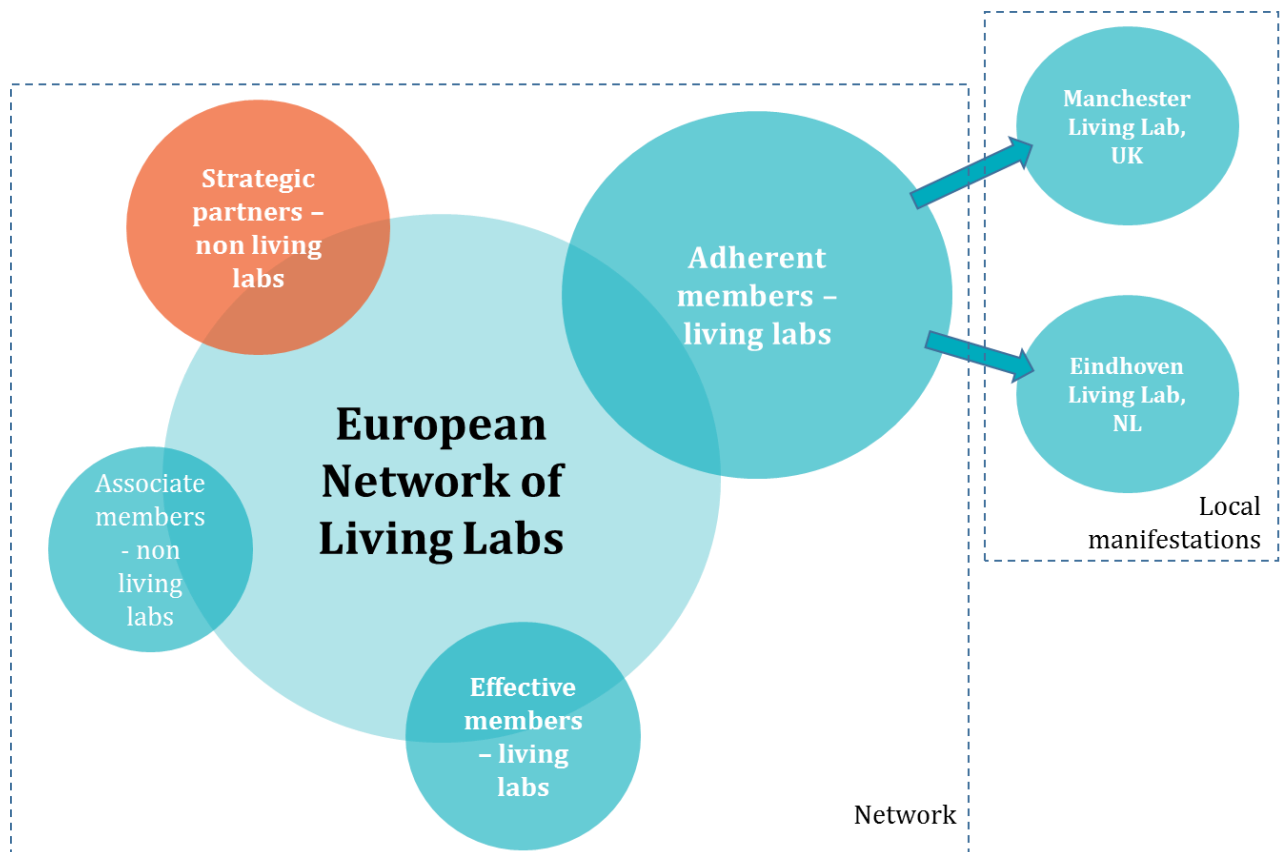
The relationship between the European Network of Living Labs and the Eindhoven and Manchester Living Labs
Developed by authors, 2015

2. The Emergence of Social Innovation

The concept of Living Labs draws on a long tradition of user-centred and participatory research. It is not the first to argue for an active role for users in the design and development process of computer technologies. Important predecessors were. Its predecessors are identified by García *et al.* (2015) within certain periods as follows:

✓ 1960's-1970's: the Scandinavian cooperative and participatory design movement (e.g. the Scandinavian Collective Resource Approach from the early, cf. Ehn and Kyng 1987)
✓ 1980's: European Social Experiments with IT
✓ 1990's: Digital City Projects
✓ 2000's: The living labs originate from MIT

The concept living lab originated from the work of Prof William Mitchell from MIT (US) (Erikson *et al.* 2015, LivingLabMIT.edu 2016). The concept also started to get used and further developed in Europe. Living labs were supported by the European Commission as an attempt to bridging the gap between R&D and market

entrance (faster take up of R&D results) and to enable SMEs obstacles on local and regional markets in the fragmented European market place. It is linked with EC policies and initiatives such as EU2020, Digital Agenda, especially through initiatives such as EIPs on Smart Cities, Active and Healthy Ageing (AHA) and Future Internet. Several Living Lab Initiatives were supported by the EC (FP7, CIP ICT PSP programme, Interreg, etc.) as well as by various national programmes of European countries. Living Labs might further flourish in the context of Horizon2020, but there are also hints that the actual popularity of living labs is again decreasing since 2010 (Schuurman, 2015). European living labs started networking and an important moment for the living labs movement in Europe was the creation of the European Network of Living Labs (ENoLL) in 2006 under the Finnish EU Presidency. ENoLL is currently a non-profit international association representing a diverse community of over 395 "certified" Living Labs in March 2016, of which about 170 are active living labs. In this study we took a closer look at the Eindhoven Living Lab (the Netherlands) and the Manchester Living Lab (United Kingdom).

Eindhoven is a city that is often associated with innovation, design and digital technology. This can be explained by its recent history. Philips was founded in 1891 in the city of Eindhoven and that marked the beginning of a close relationship between city, industry and technology. In the 1930's another important Dutch technology based industrialist DAF (trucks) was founded in Eindhoven. This technology focus created ground for the establishment of the Eindhoven University of Technology in 1956. When Philips decided to move its headquarters to Amsterdam in 1997 Eindhoven had to become more creative and active in its commitment to become a knowledge and innovation hub around technology and design. The birth of the Brainport association in 2005 is part of this process. Brainport is an economic development agency that bring partners together, mainly from the public, private and research and education sectors and that promotes innovation. The first living lab initiative orginates in 2010 and in 'Doornakkers' a neighbourhood in Eindhoven. It was a joint initiative of the municipality of Eindhoven, the provincial government 'Noord Brabant' and Brainport Health Innovation. The neighbourhood Doornakkers experimented with ICT applications in order to improve the health situation of senior residents. At the 5th of September 2014, Eindhoven was formally accepted as a member of the European Network of Living Labs.

Through their involvement in various European Commission projects, development workers at Manchester City Council had collaborations with Helsinki and VTT (Technical Research Centre of Finland) going back to the mid-1990s. These included the Telecities network set up in 1993, and which became the Eurocities Knowledge Society Forum, and more recently the EU Smart Cities portfolio. European collaboration on the introduction of digital technologies continued and deepened when the Council created MDDA in 2002. MDDA (which closed down in 2015 as consequence of budget cuts) became a founding member of ENoLL.

It is important to see the emergence of the living lab activities in Manchester in the context of the historical significance of digital technologies for Manchester council and its aspirations for developing the city. European projects, including Living Labs, were a resource for advancing what key figures wanted to do with digital technology in the city. Like many industrial cities in the UK, Manchester suffered considerably from long-term manufacturing decline, particularly in its core sectors of textiles and engineering. Its administration has consistently been in the hands of the Labour Party and that, with shifts in ideology and leadership aside, has meant a relatively stable political context. Toward the end of the 1980s, city leaders began to see post-industrial cultural activity in Manchester as an economic asset to be promoted in the regeneration of the city. Alongside this was recognition that emerging digital technologies - linked to the creative industries - could play an important part in the regeneration of the city. It was under these circumstances that support for digital technologies was forthcoming and the support for those new digital technologies was framed around ensuring skills, creating jobs, and promoting social inclusion.

3. Transformative Social Innovation dynamics

The development of living labs in general and of ENoLL specifically have been enabled by the focus on innovation (often with the idea that innovation mainly has a market value), ICT and collaborative experimentation in European policy and funding. If one looks at the evolution of ENoLL entrants it is clear that this number goes up from 2006 until 2010 and afterwards it declines. This can possibly be explained by the increased strictness of the admission procedure after 2010 (Schuurman 2015). Another probable explanation for this trends is that many living lab initiatives rely (mainly) on project based public funding streams that might have decreased after 2010.

Since the past decades there seems to be an increased awareness that no single institution or organisation can deal with societal challenges alone. Living labs are rooted in that notion as they are an example of new forms of collaboration between various existing institution and structures and that makes the living labs themselves actually a new institutions, or at least a new structure.

ENoLL and the two cases (Eindhoven and Manchester) that were studies, are strongly connected to narratives and discourse around doing things together as is expressed by many words that are used starting with 'co': co-creation, co-design, co-development, co-llaborate, co-operate etc. But is also about experimentation and words like laboratory, testing and prototyping are commonly used. It further draws on notions of existing streams of innovation research and mainly on user innovation and open innovation, even though a systematic and theoretically informed links remains rare (Schuurman et al, 2015). Living labs are also part of trend and discourse focusing on ICT and the use of data and often associated with smart cities, internet of things and open source developments.

The living lab initiatives in Eindhoven are a direct response to the new challenges and new opportunities that are being experienced in the context. The type of challenges it relates to include: health, aging society, security and safety, sustainability, climate change, migration, etc.

Eindhoven is considered to be a city that is unique in its collaboration and cooperation between actors, in which trust is key. It is seen as a tradition in a region with scarce resources – poor agricultural land and lack of raw materials where people nonetheless had to generate an income: the only way to survive and grow was to do it together. Since today's challenges are considered complex and interconnected, cooperation becomes even more important. The cooperation does not always need to be formally structured (sometimes it is important!) and the living labs should provide mainly space for experiments. It is acknowledged that many citizens expect a reliable government and it is a big and important challenge to make this happen in this context of experiments.

The living labs are also a response to possibilities that arise from technology. The major potential that is seen is the combination of high-tech developments and the use and availability of data (big data, open data, smart applications).

The political support for living labs is very important in Eindhoven: the local government policy addressed the importance of living labs and the 'living lab approach' and acknowledges that experimentation can only work if there is room for failure. Furthermore it aims to put citizens more at the centre then the city did traditionally.

In Manchester the focus on living labs is less explicit, while the focus on 'living lab type of values' has been and remains more dominant. There are a variety of organisations providing dynamic spaces for 'users' to engage in developments in digital technologies in the city, and that contribute to a lively digital technology milieu that spans the grassroots, education, public policy, and business, from start-ups to major suppliers. However, with the demise of the MDDA in 2015, which very much identified with Living Labs networks (ENoLL) Manchester's participation in Living Labs internationally has become less of a priority.

The city council of Manchester has taken responsibility for digital economic development back in house, and is working on related-activities in smart cities, open data, and Internet of things. In this respect, it remains a lead city in several European projects. But these are not Living Lab activities per se. The projects and work are not using Living Labs explicitly. Future Everything is working internationally, and MadLab too with its links to China. But it is hard to see these activities as specific to Living Lab. Rather part of the broader mission of each to engage people in digital culture and technology.

4. Agency in (Transformative) Social Innovation

Agency is focused on the human dimension of change: how do people within organisations, initiatives, projects, networks etc. relate to the change that they are working for? Do they have influence and direction over their circumstances, are

they working on change that is in-line with their personal motivations? What do they believe in? But also, who are (dis)empowered?

To enable ENoLL to implement its mission, *to support the evolution and the wide uptake of the living lab paradigm throughout Europe and worldwide*, it established a range of collaborative linkages with other organisations that have a complementary mandate, through Memorandums of Understanding. To date (March 2016), the ENoLL has formed strategic partnerships and alliances with organisations including the World Bank and EBN, the European BIC (Business & Innovation Centre) Network.

The agency and empowering capacity of ENoLL can be better understood by seeing Living Labs as small local ecosystem, focused around innovation. Those ecosystems should provide breeding ground for making new connections between various actors and besides that, the Living Labs dialogue with other local actor ecosystems (this means other ecosystems than living labs) and in that process new connections are also made. The new connections between various ecosystems create room where change can manifest itself. In addition, it creates the possibility for actors to move out of their comfort zones and to develop themselves.

Many living labs initiatives rely on (project based) subsidy and this can reduce their autonomy, until date it remains a challenge to make living lab initiatives more (financially) sustainable. But in contrast to that, the funding of ENoLL relies on membership fees and diverse project funding that is the result of the active acquisition of the ENoLL staff (there is no subsidy for carrying out general administrative tasks, while those tasks are done by paid employees). This funding structure ensures that the focus of ENoLL is strongly focused on supporting its members, who pay for the existence of the network.

In the Eindhoven living lab it is very clear that many connected professionals share some values and passions that are very critical for the living lab. The relative weight that those values and the passions have differ for the different professionals but they all connect to the living lab activities and include:
- ✓ Focus on dynamics, innovation and experimentation in open-ended processes that should lead gradually towards a new system;

- ✓ Putting citizens first and at the centre of each innovation, but in a process that goes hand in hand with technology, and data.

Despite the strong desire to focus on and engage citizens in the living lab, in practice it is hard to realise this. There even are examples where the focus technology actually overshadows the focus on people.

There is no generally agreed theory of change that forms the basis for the living lab, but as a city Eindhoven summarized its values along 3 lines: on a) being close to citizens, being concerned about local issue and being connected and committed to the city of Eindhoven, b) on being brave to do things differently if needed and c) on acting rather than talking.

Finally, the living lab aims to use data and technology in such a way that it empowers citizens, including vulnerable citizens. At this stage it is hard to see to what extent

this is really happening, but in general there is an understanding that the living lab still needs to develop itself in order to achieve its goals in terms of citizen empowerment.

Given the history and situation briefly described in this summary report, it is difficult to isolate the social agency of Living Labs in Manchester from other activities to include people in digital technology developments, and that preceded Living Labs, and that now looks set to operate beyond Living Labs. As a concept for engaging people in digital technology developments, Living Labs chimed with what people in Manchester were already doing and seeking. In Manchester, we see the development of a milieu for promoting digital technologies in the city, and with a social focus amongst some of it.

However, the enthusiastic experience in Manchester does prompt a reflection on the kinds of social agency Living Labs has contributed towards. As a methodology Living Labs risks, arguably, being somewhat retrograde in terms of social agency compared to earlier participatory design initiatives, such as the hopes for the collective resource approach in Scandinavia in the 1980s. Living Labs appeared originally to be about getting usable digital technologies out into communities. Methodologies for increasing the scope for resisting or radically reshaping digital technologies, for example, appeared absent. In Manchester, it is at events such as Future Everything's festival – particularly its more provocative installations, discussions and performances, that critical participation in digital technology arises, e.g. unsettling around privacy and other artistic activities. But none of this is hard wired into policy and decision-making. Rather, it works on the cultural level. There has been policy commitment in Manchester to ensuring digital technology roll-out attends to social inclusion, and so there has been scope for ensuring local communities can shape some forms of digital technology. Perhaps this is most evident in city authority support for MadLab, and its grassroots approach to digital technology experimentation.

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Pictures used for the cover:
- ✓ ENoLL (left): http://pro.europeana.eu/blogpost/introducing-enoll-the-european-network-of-living-labs
- ✓ Manchester (middle): http://www.360spin.com/madlab/
- ✓ Eindhoven (right): https://e52.nl/een-kijkje-in-het-lab-van-het-stratumseind/ and https://www.facebook.com/LivingLabStratumseind/photos_stream?ref=page_i nternal

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