



---

**Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction**

**Final report**

**Date: 30.01.2016**

---

**Reducing food waste through social innovation**

FUSIONS EU project is supported by the European Community's Seventh Framework Programme under Grant Agreement no. 311972.



# Colophon

Title	Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction
Main authors	Matteo Vittuari, Unibo - University of Bologna, Italy Silvia Gaiani, Unibo - University of Bologna, Italy Alessandro Politano, Unibo - University of Bologna, Italy Lusine Aramyan, LEI – part of Wageningen UR, Netherlands Natasha Valeeva, LEI – part of Wageningen UR, Netherlands Manuela Gheoldus, BIO by Deloitte, France Maria Elander, IVL - Swedish Environmental Research Institute, Sweden Susanna Roth, IVL - Swedish Environmental Research Institute, Sweden Haben Tekie, IVL - Swedish Environmental Research Institute, Sweden Christina Zuebert, University of Hohenheim   Hohenheim Research Center for Bioeconomy Benjamin Biesdorf, University of Hohenheim   Hohenheim Research Center for Bioeconomy Kirsi Silvenoinen, LUKE, Natural Resources Institute, Finland
Acknowledgement	The remaining FUSIONS team is acknowledged for providing feedback on the work: Bos-Brouwers H., WUR; Timmermans T., WUR; Östergren K., SP; Weber M., WRAP; Rogers D., WRAP; Canali M., UNIBO.
Keywords	Social innovation, food waste prevention, food waste reduction
ISBN	978-94-6257-711-4
Project leader	Toine Timmermans and Hilke Bos-Brouwers; Food & Biobased Research, Wageningen UR (FUSIONS Project Coordinators)
Client	The European Commission, FP7-Coordination and Support Action (Contract No 311972)

WP/Deliverable: **WP3, Deliverable D3.3**

**All rights reserved.** No part of this publication may be reproduced, stored in a retrieval system of any nature, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the publisher. The publisher does not accept any liability for inaccuracies in this report.

Bologna, 30.01.2016

# Contents

	<b>Colophon</b>	<b>2</b>
	<b>Contents</b>	<b>3</b>
	<b>Index of tables</b>	<b>4</b>
	<b>Index of figures</b>	<b>5</b>
	<b>Index of boxes</b>	<b>6</b>
<b>1</b>	<b>Executive summary</b>	<b>7</b>
<b>2</b>	<b>Introduction</b>	<b>9</b>
<b>3</b>	<b>Objective</b>	<b>10</b>
<b>4</b>	<b>Methodology</b>	<b>11</b>
<b>5</b>	<b>Background</b>	<b>16</b>
<b>6</b>	<b>Social innovation in the EU: policy initiatives and projects</b>	<b>18</b>
<b>7</b>	<b>Review of policy measures stimulating social innovation in selected sectors</b>	<b>24</b>
	7.1 Environment	24
	7.2 Health	29
	7.3 Workplace	33
	7.4 Regional strategies	39
	7.5 Social economy	43
	7.6 Lessons and opportunities to stimulate social innovation initiatives addressing food waste	49
<b>8</b>	<b>Policy measures stimulating social innovation addressing food waste prevention and reduction</b>	<b>51</b>
<b>9</b>	<b>Conclusions</b>	<b>58</b>
<b>10</b>	<b>References</b>	<b>62</b>

# Index of tables

Table 4.1 Social Camp, RPMs and EPMs that took place from 2013 to 2015 ..... 14

Table 6.1 Best Countries scores per dimension ..... 22

Table 7.1 Summary of policy measures and barriers in the environmental sector ..... 28

Table 7.2 Summary of policy measures and barriers in the health sector ..... 32

Table 7.3 Summary of policy measures and barriers related to the workplace sector ..... 37

Table 7.4 Summary of policy measures and barriers in the regional strategies sector ..... 41

Table 7.5 Summary of policy measures and barriers related to the social economy sector 48

Table 8.1 Stakeholders' participation to FUSIONS' RPMs and EPMs ..... 53

Table 8.2 Policy measures, barriers and opportunities in the food waste sector ..... 56

# Index of figures

- Figure 4.1 Methodological steps, a summary ..... 11
- Figure 5.1 Categories of policy measures ..... 17
- Figure 6.1 DG Growth’s activities on social innovation ..... 18
- Figure 6.2 Performance groups for the “Innovation Union Scoreboard” 2014 ..... 21
- Figure 6.3 Innovation Union Scoreboard: the eight innovation dimensions ..... 21
- Figure 9.1 How policy can stimulate social innovation ..... 61

# Index of boxes

- Box 4.1 Experts interview driving questions ..... 12
- Box 4.2 EU policy areas ..... 13
- Box 4.3 Driving questions at some of the FUSION EPMs and RPMs in 2014 and 2015 ..... 14
- Box 6.1 Denmark: Innovation Leader ..... 22
- Box 6.2 United Kingdom: Innovation Follower ..... 22
- Box 6.3 Portugal: Moderate Innovator - Growth Innovation Leader ..... 22
- Box 7.1 Workplace innovation programmes in European countries ..... 35
- Box 8.1 Examples of policy measures to encourage social innovation (preliminary findings from FUSIONS WP4) ..... 55

# 1 Executive summary

Social innovations to address societal challenges have become part of our daily life and play an important role in a number of sectors: food waste reduction and prevention, recycling, fair trade labels, eco-tourism, shared cycling in cities, eco-building, and prevention of and adaptation to climate change are just a few of the many areas where social innovations prove to be successful tools.

*"Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction"* analyses how social innovation is addressed in European and Member States policies focusing on 5 selected sectors -environment, health, workplace innovation, regional strategies, social economy/social entrepreneurship – and food waste.

The report builds on the knowledge created by the FUSIONS position paper "Stimulating social innovation through policy measures" that uses as key inputs the range of existing social innovation initiatives catalogued by FUSIONS WP4 in the inventory and draws on the outcomes of the WP3 Social Camp event that gathered together a number of social innovators to discuss the major challenges and policy barriers they encounter. The position paper identified a preliminary set of policies aimed to stimulate social innovation initiatives. The present study takes the analysis further by detecting the policy measures used to stimulate social innovation in 5 sectors environment, health, workplace innovation, regional strategies, social economy/social entrepreneurship plus food waste-, recognizing the major policy barriers to social innovation and identifying a set of policy options potentially stimulating social innovation and addressing food waste prevention and reduction.

The report used a mix of qualitative methodologies and the results obtained in other FUSIONS' activities to detect best practices and good examples of projects promoting social innovation, to identify barriers for the uptake of social innovation.

Policies stimulating SI in the 5 selected sectors were identified and analysed through a systematic literature review and a set of interviews with relevant experts.

As for the other sectors, the review of the policy measures to stimulate social innovation addressing food waste was organized through a systematic literature review complemented by a number of interviews with relevant experts. Additionally this review was integrated with:

- the results of FUSIONS' D1.5 "Food waste drivers in context";
- the insights of the FUSIONS' position paper "Stimulating social innovation through policy measures";
- the outcomes of the stakeholders consultations led within the FUSIONS European Platform Meetings (2013 and 2014), the 12 FUSIONS Regional Platform Meetings (between 2013 and 2015) and the FUSIONS Camp (Social Innovation Camp, 2014).

In the food waste sector – as well as in other areas – policies should aim at **creating enabling conditions and mobilising resources**. Building on elements of governance, financing, capacity building and research and on tools such as incubators, hubs, forums, prizes and research in methodologies, benchmarking and impact measurement policies could help to develop some significant initiatives addressing societal challenges to be launched by the European Commission. Experimentation and validation processes at EU level would also benefit from sampling projects in a wider field.

At the EU and MS level, social innovation is stimulated by an array of different measures and tools including:

- **Sharing of best practices:** in the field of food waste reduction and prevention initiatives, the sharing of experiences, processes and innovations can enable more efficient and effective actions.
- **Promoting engagement** in the decision-making process: in the field of food waste reduction and prevention, the involvement of food chain stakeholders as well as of local communities can enable the emergence of new innovative strategies and support a deeper awareness of food waste implications.
- **Creating new business models** for collaboration between regular and social economy (based on the principles of solidarity and mutuality): in the field of food waste reduction and prevention, collaborative approaches between profit and non profit organizations can become a crucial source of innovation in advanced economies. Retail and charity organizations arranging 'solidarity stores' for the collection, sale, or use of discarded 'sub-standard' products that are still safe, good and have nutritional value are a good example.
- **Developing public procurement guidelines:** in the field of food waste reduction and prevention, PP guidelines could help to drive growth in the food industry and benefit the environment through reduced waste, higher take-up of meals and less food left on plates.
- **Enhancing public and private investments** in corporate innovation: in the field of food waste reduction and prevention, companies could save billions of euros by using new, innovative approaches to reducing food waste. For example corporate innovations could make a change in packaging food and monitoring fresh produce.

Policies stimulating social innovation in the food waste sector should be aimed at the **creation of an enabling policy environment** through the *design and implementation of specific national strategic food waste prevention strategies, the simplification of food waste legislation or the introduction of clear labelling systems and certification schemes.*

Measures aimed at the creation of an enabling policy environment might include:

- **The promotion of specific measures** and tools as the introduction of food waste voluntary reporting for retailers.
- **The provision of specific socio-economic incentives** to create new business models for collaboration between regular and social economy or to stimulate behaviors at the business and consumer level.
- **The stimulation of** inter-sectoral and intra-sectoral private-private **partnerships and dialogue** as the introduction of voluntary and negotiated agreements.
- **The introduction of social and environmental responsible practices** by including food waste prevention and reduction requirement in green public procurement procedures or extending corporate social responsibility (CSR).
- **The promotion of public dialogue** among communities, entrepreneurs and other stakeholders.
- **Investments in research and innovation.**
- **The support to innovators and CSOs at the local level** (providing venues for events, equipment for cooking, transport for surplus food and for volunteers).
- **The development of networking activities** through projects and by promoting ICT access, use and skills.
- **The dissemination of information and ideas** (e.g info on the role of innovative packaging solutions and the critical links among packaging, product protection and food waste)
- **The promotion of awareness and education.**
- **The identification and set up of indicators** and tools to measure and identify innovation outcomes.

Social innovation and policies for a more sustainable food system have a powerful role to play in the fight against food waste. An enabling system based on a risk-sharing approach that is institutionally embedded at EU and Member States level and gives proactive support to individuals as employees, entrepreneurs, family members and citizens when engaged in creating value is necessary at a time of shrinking budgets and workforces.

# 2 Introduction

Food waste is gathering increasing global interest and is engaging governments, research institutions, producers, distributors, retailers and consumers in its definition and in the identification of appropriate policy interventions for its prevention and reduction.

FUSIONS (Food Use for Social Innovation by Optimising Waste Prevention Strategies) is a project aiming at contributing to a more resource efficient Europe by significantly reducing food waste through a range of activities including the harmonisation of food waste monitoring, the enhancement of an improved understanding of the extent to which social innovation can reduce food waste, and the development of a set of guidelines for a common Food Waste policy for EU-28. Within this framework the project is specifically looking at social innovation and policies stimulating social innovation initiatives addressing food waste. This report aims to identify a range of policy options potentially contributing to stimulate social innovation initiatives addressing food waste prevention and reduction.

*"Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction"* analyses how social innovation is addressed in European and Member States policies focusing on 5 selected sectors - environment, health, workplace innovation, regional strategies, social economy/social entrepreneurship – and food waste.

The report builds on the knowledge created by the FUSIONS position paper "Stimulating social innovation through policy measures" that uses as key inputs the range of existing social innovation initiatives catalogued by FUSIONS WP4 in the inventory and draws on the outcomes of the WP3 social camp event that gathered together a number of social innovators to discuss the major challenges and policy barriers they encounter. The position paper identified a preliminary set of policies aimed to stimulate social innovation initiatives. The present study takes the analysis further by detecting the policy measures used to stimulate social innovation in 5 sectors, recognizing the major policy barriers to social innovation and identifying a set of policy options potentially stimulating social innovation addressing food waste prevention and reduction.

Through a systematic literature review and a number of experts interviews, the report analyses the role that policy measures play for the enhancement of social innovation in different sectors: environment, health, workplace innovation, regional strategies, social economy/social entrepreneurship plus food waste.

In the case of the food waste sector the data collection and the identification of policy options are further integrated with:

- the suggestions of the focus groups organized within the FUSIONS Camp (Social Innovation Camp) (T3.2.2);
- the position paper "Stimulating social innovation through policy measures";
- the results of T1.3 "Food waste drivers in context";
- the outcomes of the stakeholders consultations lead within the 2 FUSIONS European Platform Meetings (2013 and 2014) and the 12 FUSIONS Regional Platform Meetings (between 2013 and 2015);
- the preliminary findings of FUSIONS WP4.

The report helps to identify those policy options related to social innovation enhancement - and extrapolated from the selected sectors - that could be successfully applied to food waste prevention and reduction. Furthermore it suggests a number of policy tools that could be promoted at EU level to stimulate social innovation in the field of food waste.

# 3 Objective

According to the FUSIONS Description of Work, the purpose of sub-task T3.2.3 is to identify a set of policy measures to build policy strategies challenging food waste by promoting social innovation initiatives.

More specifically, the report “Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction” aims to:

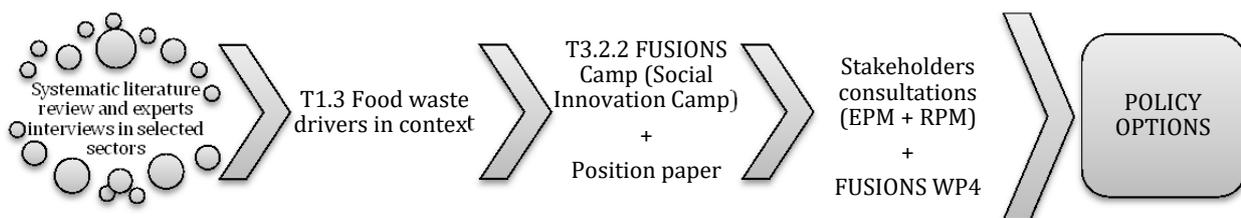
- provide an overview of policies for social innovation promotion in Europe and in the Member States;
- review examples of policies stimulating social innovation in the selected sectors - environment, health, workplace innovation, regional strategies, social economy/social entrepreneurship - plus food waste;
- identify the barriers that obstruct the full implementation of these policy measures;
- detect best practices and good examples of projects promoting social innovation in the selected sectors;
- suggest a range of policy options potentially stimulating social innovation initiatives addressing food waste prevention and reduction;
- contribute - through the identification of the policy options – to the development of FUSIONS’ T3.1.2 “Scenario analysis of current trends of food waste generation” and T3.4 “Guidelines for a European Common Policy encouraging food waste prevention and reduction through social innovation”.

# 4 Methodology

The report used a mix of qualitative methodologies and the results obtained in other FUSIONS' activities to identify a range of policy options potentially contributing to stimulate social innovation initiatives addressing food waste prevention and reduction.

Figure 1 sums up the main methodological steps undertaken within this study.

**Figure 4.1 Methodological steps, a summary**



Source: authors' elaboration

## **Review of policy measures stimulating social innovation in selected sectors**

Policy measures aimed at stimulating social innovation were analyzed in 5 sectors (environment, health, workplace innovation, regional strategies and social economy) identified by FUSIONS' experts as the most interesting sectors considering the role social innovation plays in them.

In order to collect relevant data on social innovation (policies and initiatives) related to each of the 5 areas identified, partners followed a 3 steps procedure made up of the following actions:

### Systematic literature review

For each sector a systematic literature review was carried out.

The systematic literature review can be summarized in the following steps (Fiegen, A.M., 2010; Hidalgo Landa et al., 2011):

1. identification of the research terms (for example: sector/field of reference + social innovation + policy + Europe (or names of Member Countries),
2. identification and research in the relevant databases (Scopus<sup>1</sup>, Web of Science<sup>2</sup> and others),
3. search of the relevant publications,
4. analysis and summary of the evidence with a specific focus on social innovation policy measures (results from step 3).

The literature review was organized into sections characterized by similar themes or identifying trends related to social innovation, including relevant theory. Collected information were synthesized and evaluated according to the guiding concepts: assigned sector + social innovation + policy options addressing a specific objective in the given sector through social innovation.

<sup>1</sup> Scopus (about 55 million records; 21,915 titles; 5,000 publishers) is the largest abstract and citation database of peer-reviewed literature in the fields of science, technology, medicine, social sciences, and arts and humanities. It includes scientific journals, books and conference proceedings. Website: <http://www.scopus.com/>

<sup>2</sup> Web of Science connects publications and researchers through citations and controlled indexing in curated databases spanning every discipline. Use cited reference search to track prior research and monitor current developments in over 100 year's worth of content that is fully indexed, including 2.6 million records and backfiles dating back to 1898. Website: <http://wokinfo.com/>

### Experts' interviews

The systematic literature review was then complemented by a number of interviews with relevant experts identified also through the literature review.

The interviewed experts are either national or international, either working for a specific institution or independently. Above all they are endowed with a strong policy background in the given sector and have some knowledge of social innovation or - alternatively - are experts of social innovation with some experience in the given sector. Interviews were conducted via telephone/meeting/email.

Inputs coming from the interviews were integrated into the systematic literature review.

#### **Box 4.1 Experts interview driving questions**

1. What is your own definition of social innovation / how you would define social innovation in your sector?
2. Do you think social innovation could contribute in a positive way to your sector?
3. If yes, how and through which policies or activities?
4. Could you list some example of social innovation initiatives/policies which have already been applied in your area of expertise (if any)?
5. Could you identify those that have been more successful?
6. Could you list a number of relevant references (scientific articles, reports, other publications)?

### Data elaboration

Data and information collected through the literature review and the experts interviews were organized in four sections:

- i. *The role of social innovation*: aimed at discussing the role of social innovation in the specific sector;
- ii. *Policy measures fostering social innovation*: intended to identify and discuss a short list of policy measures derived from the literature review and from the experts interviews;
- iii. *Examples and good practices*: expected to present a number of examples and good practices related to the policy measures identified in the previous section (ii). A measure or program was considered a good practice if it was indicated as such from literature sources or from the experts interviews. In general, for the purpose of this work, a measure/action to be considered a good practice should be:
  - **targeted**: practices that have a rather clear focus;
  - **inclusive**: practices that engage a wide array of stakeholders;
  - **effective**: practices based on guidelines, protocols, standards, reports, or preferred practice patterns;
  - **measurable**: practices that have an evaluation plan in place to measure program outcomes, even if they do not yet have evaluation data available to demonstrate the effectiveness of positive outcomes;
  - **innovative**: practices that use original or resourceful techniques;
  - **replicable**: practices that can be easily reproduced and are similarly relevant in regions across Europe;
  - **representative**: practices that originate from a wide range of countries and/or operate at national, regional and local level.
- iv. *Barriers for policy measures stimulating social innovation*: aimed to recognize relevant barriers for the implementation of the identified policy options.

A short list of policy measures and barriers was identified for each of the selected sectors. All the policy measures selected, although derived from the literature review of the selected sectors, had to be evaluated as applicable also to the food waste sector.

For each policy measure the related "EU policy area" was identified.

#### **Box 4.2 EU policy areas**

<p><b>EUPA1</b> Policy coordination</p> <p><b>EUPA2</b> Entrepreneurship and SME</p> <p><b>EUPA3</b> Education and training</p> <p><b>EUPA4</b> Communication networks and technology</p> <p><b>EUPA5</b> Industry</p> <p><b>EUPA6</b> Access to finance</p> <p><b>EUPA7</b> Health and food safety</p> <p><b>EUPA8</b> Social protection and inclusion</p> <p><b>EUPA9</b> Employment, social affairs and inclusion</p>
--

#### **Review of policy measures stimulating social innovation and addressing food waste prevention and reduction**

As for the other sectors, the review of the policy measures in the food waste sector was organized through a systematic literature review complemented by a number of interviews with relevant experts (see the previous section for the details on the systematic literature review and on the experts interviews).

Additionally, the analysis of the policy measures stimulating social innovation in the food waste sector was integrated with:

- the results of T1.3 “Food waste drivers in context”;
- the insights of the FUSIONS’ position paper “Stimulating social innovation through policy measures”;
- the outcomes of the stakeholders consultations led within the FUSIONS European Platform Meetings (2013 and 2014), the 12 FUSIONS Regional Platform Meetings (between 2013 and 2015) and the FUSIONS Camp (Social Innovation Camp, 2014).

The report “**Drivers of current food waste generation, threats of future increase and opportunities for reduction**” identified 271 food waste drivers, which witness a wide and multifaceted problem, interconnected across all stages of the food supply chain, from primary production in farms, up to final consumption in food services and households.

By referring to the current food waste causes, the report distinguishes:

**A.** food waste related to the intrinsic characteristics of food products and their production processes and consumption practices (e.g. food perishability and limited capacity to anticipate future supply and demand);

**B.** food waste related to social factors and dynamics in population habits and lifestyles (e.g. single-person households, young age of household members, young couples with small children, increased consumption of meals out-home, etc.);

**C.** food waste related to individual behaviours and general expectations of consumers towards food (e.g.: aesthetic characteristics, freshness, expectation to access to large quantities and varieties of food products independently on places, season, and time);

**D.** food waste related to other priorities targeted by private and public stakeholders (the possibility of generating food waste may be a minor concern with respect to other priorities of private and public stakeholders: cost reduction, sales increase, product safety, quality standards, etc.);

**E.** food waste related to non-use or sub-optimal use of available technologies, organisational inefficiencies of supply chain operators, inefficient legislation, and consumers’ food waste generating behaviours depending on unawareness, scarce information, poor food skills etc.

Considering such categories social innovation initiatives might have a significant impact on categories B and C and to some extent on category E.

The position paper “**Stimulating social innovation through policy measures**” highlights social benefits associated with tackling food waste through social innovation, from reducing social isolation to improving access to nutritious food. The report provides a preliminary assessment of the types of policy activities undertaken by the EU to stimulate and advance social innovation, following the categorization of policy instruments (Gupta J et al, 2013): suasive approaches, regulatory approaches, market based instruments, public

provision of services. It emphasizes that policy has a role in all three stages of the social innovation cycle – creation, use and scale-up – but arguably the most important role for policy is in the ‘scaling up’ stage rather than in stimulating the initial innovations, which by their nature are not very predictable.

Additional inputs to the identification of a list of policy options stimulating social innovation for food waste reduction and prevention were provided by the consultation sessions that took place during the FUSIONS Social Camp on "Social innovation for food waste prevention and reduction", the 12 Regional Platform Meetings (RPMs) and two European Platform Meeting (EPMs) organized by FUSIONS from 2013 to 2015. Such events, brought together FUSIONS members and other stakeholders from across the food supply chain.

FUSIONS has in fact among its objectives the establishment of multistakeholders platforms at European, national and regional levels: the aims of such platforms are to facilitate discussion among key stakeholders, to build consensus and to develop recommendations on social innovation measures for food waste prevention and reduction.

The contributions coming from the different platform meetings were collected and proposed in the present report as integration to the list of policy options derived from the literature review and the interviews with experts.

**Table 4.1 Social Camp, RPMs and EPMs that took place from 2013 to 2015**

2013	2014	2015
RPM 2013 Central Europe: 16 May 2013 in Hohenheim, Germany	RPM Southern Europe: 14 March 2014 in Athens, Greece	RPM Scandinavia: 22 April 2015 in Oslo, Norway
RPM 2013 Southern Europe: 20 May 2013 in Padua, Italy	FUSIONS Social Camp on "Social innovation for food waste prevention and reduction": 8 April 2014 in Bologna, Italy	RPM Southern Europe; 22 May 2015 in Bologna, Italy
RPM 2013 Scandinavia: 23 May 2013 in Helsinki, Finland	RPM Scandinavia: 6 May 2014 in Stockholm, Sweden	RPM North West Europe: 26 May 2015 in Paris, France
RPM 2013 North West Europe: 7 June 2013 in Paris, France	RPM Central Europe: 9 May 2014 in Düsseldorf, Germany	RPM Central Europe: 3 June 2015 in Budapest, Hungary
EPM 2013: 17-18 October 2013 in Amsterdam, The Netherlands	RPM North West Europe: 28 May 2014 in London, UK	
	EPM 2014: 30-31 October 2014 in Brussels, Belgium	

Source: authors' elaboration

During the EPMs, the RPMs and the FUSIONS Social Camp ad-hoc consultations were organized with the present food supply chain stakeholders and FUSIONS partners/members to address specific questions focusing on the role of policy to stimulate social innovation initiatives addressing food waste prevention and reduction.

Below, as an example, are the guiding questions that led the discussions at some of the EPMs and RPMs that took place in 2014 and 2015.

**Box 4.3 Driving questions at some of the FUSION EPMs and RPMs in 2014 and 2015**

<p><b>Brussels 2014 (2<sup>nd</sup> EPM)</b></p> <ul style="list-style-type: none"> <li>- What are the policy barriers to entrepreneurship and innovation around food waste prevention?</li> <li>- How can policy be used to facilitate social innovation action? E.g. in the following areas: public procurement; CSR &amp; business policy; voluntary agreements; intervening in education.</li> <li>- At what level are policies in these areas best able to facilitate social innovation (EU, national, local level) and how can each level be influenced?</li> </ul> <p><b>Helsinki 2015 (2<sup>nd</sup> Scandinavia Regional Platform Meeting)</b></p> <ul style="list-style-type: none"> <li>- What types of policy instruments are more suitable to address food waste prevention and reduction?</li> <li>- Direct regulations or negotiated/voluntary agreements? What are the pros and cons between</li> </ul>
--

those two regulatory approaches based on the Nordic experiences? What are the conditions (in particular at the policy level) that can support/stimulate voluntary and negotiated agreements addressing food waste prevention and reduction?

- How to stimulate food redistribution? What policy instruments and regulatory measures/incentives could be used to scale up social innovation initiatives addressing food redistribution?

**Bologna 2015 (3<sup>rd</sup> Southern Europe Regional Platform Meeting)**

- Foodstuff labelling is aimed to guarantee that consumers have access to complete information on the content and composition of products, but at the same time they can also represent a cause of food waste. What policy measures or changes to current measures could support the clarification and standardization of current food date labels so enable consumers to produce less food waste at home?
- What policy and regulatory measures/incentives could be used to stimulate the identification and the adoption of sustainable innovative packaging solutions aimed to address food waste prevention and reduction?
- What are the conditions (in particular at the policy level) that can support/stimulate voluntary and negotiated agreements addressing food waste prevention and reduction?

**Budapest 2015 (3<sup>rd</sup> Central Europe Platform Meeting)**

- What policy measures or changes to current measures could stimulate and create an enabling environment for the recovery and the donation of unsold/unused food?
- How could policy stimulate the development of social innovation initiatives aimed at facilitating food donation?
- What is the role of negotiated and voluntary agreements in supporting/stimulating food donation?

Source: authors' elaboration

The policy inputs coming from all FUSIONS consultation sessions were structured, as in other FUSIONS' policy works (e.g T 3.1b), according to the following typologies of policy measures: national plans, market-based and regulatory schemes, voluntary agreements, communication and campaigns, other projects.

Additional policy inputs were provided by the preliminary findings from WP4 " Feasibility studies". All the different contributions were integrated and analyzed so to identify a set of policy options potentially stimulating social innovation addressing food waste prevention and reduction.

# 5 Background

## ***FUSIONS' definition of food waste***

FUSIONS (Östergren, K. et al., 2014) defines food waste as: “any food, and inedible parts of food, removed from the food supply chain to be recovered or disposed (including composted, crops ploughed in/not harvested, anaerobic digestion, bio-energy production, co-generation, incineration, disposal to sewer, landfill or discarded to sea)”.

## ***FUSIONS' definition of policy***

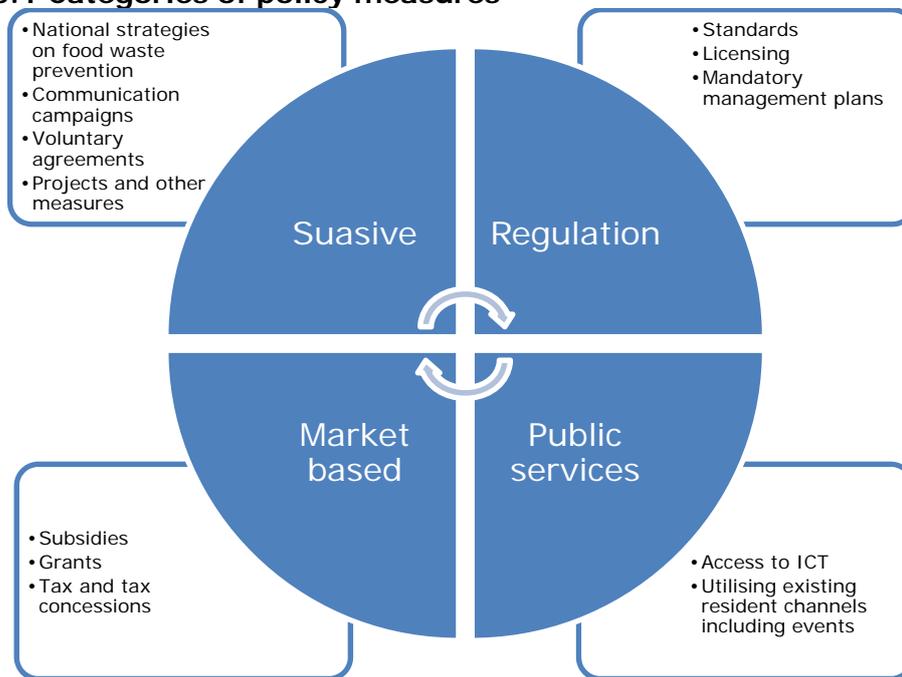
FUSIONS adopted a working definition of policy identifying policy as “actions undertaken by governments and public authorities and organisations such as regulations/legislations, governmental subsidies and support actions, private initiatives”.

**Policy instruments** were characterized according their approaches (Gupta J et al., 2013; Weimer D. L. et al., 2010):

- **Suasive approaches:** policy tools that encourage changes in behaviour through the provision of information, such as via general education programs, guidelines and codes of practice, training programs, extension services and research and development. Suasive policy measures include:
  - **National strategies on food waste prevention:** methods, strategies or plans specifically addressing food waste prevention. Key sectors addressed in the plan should include local authorities, households, the hospitality industry, the retail supply chain, businesses and institutions (such as schools and hospitals).
  - **Communication and campaigns:** national “umbrella” campaigns; local campaigns; short campaigns and festivals; education and training activities; contests and competitions; exhibitions, whose aim is to raise awareness on food waste.
  - **Voluntary agreements:** alternative courses of actions such as self-regulations developed by the industry generally aimed to deliver the policy objectives faster and/or in a more cost-effective manner compared to mandatory requirements.
  - **Projects and other measures:** initiatives like neighbourhood projects, food sharing platforms, platform/networks, labelling, applications, etc. that contribute and/or are connected to food waste reduction.
- **Regulatory approaches:** policy tools that require changes in behaviour by introducing penalties for parties who do not comply with regulatory provisions. Regulations and regulatory instruments are governmental or ministerial orders backed by the force of law. Regulatory instruments are sometimes called “command-and-control”; public authorities mandate the performance to be achieved or the technologies to be used. Types of regulatory instruments include standards (including planning instruments), licensing, mandatory management plans and covenants.
- **Market based instruments:** policy tools that encourage behavioral change through market signals rather than through explicit directives. There are a range of types of market based instruments including trading schemes, offset schemes, subsidies and grants, accreditation systems, stewardship payments, taxes and tax concessions.

- **Public provision of services:** often used when the management solution has the characteristics of a 'public good' which makes it difficult for the private sector to provide the service, e.g. national parks.

**Figure 5.1 Categories of policy measures**



Source: author's elaboration

**FUSIONS definition of social innovation**

FUSIONS has a clear remit to investigate how social innovation can help prevent food waste.

WP4 - T 4.1 *How can social innovation help reduce food waste?* and WP3 position paper *Stimulating social innovation through policy measures* define social innovation as:

“Social innovation is about new ideas that work to address pressing unmet needs. We simply describe it as innovations that are both social in their ends and in their means. Social innovations are new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations” (EC, 2010).

Social innovation has the following key attributes:

- It has socially recognised goals (and with regards to FUSIONS, can also reduce food waste).
- It is grounded in deep reflection on the problem & direct action from those involved in it. It represents co-creation and learning.
- It is people-focused, both in terms of its delivery & its beneficiaries. This aids its diffusion or institutionalisation.
- It is delivered through, and builds capacity for, relationships and collaboration – often through a multi-stakeholder approach. It affects the process of social interactions.
- It is a new combination of activities and / or delivered into a new setting.

# 6 Social innovation in the EU: policy initiatives and projects

In order to identify a range of policy options potentially contributing to stimulate social innovation initiatives addressing food waste prevention and reduction, it is worth dedicating a section of this work to the role and importance that social innovation plays at EU level.

Social innovation – although a recent phenomenon- is considered as a key priority for the European Commission due to its potential to tackle social challenges, renew public services identifying alternative solutions to meet social needs, redefine social structures, in which those who make use of an asset or a service no longer play a passive role but actively participate in the process by which it is designed and delivered (Ruiz Viñals C. et al., 2012). A huge variety of individuals and organisations of all types are already being called upon to assume new responsibilities and establish initiatives in order to address needs that were previously taken care of by public spending, at all levels.

At EU level, policy support for social innovation has moved towards the centre of the political agenda. Inside the European Commission, the number of services (Employment and Social Affairs, Enterprise, Regional Policy, Agriculture, and Research and Innovation) involved has grown and a ‘social innovation’ culture has spread in support of the Europe 2020 Strategy and its implementation. For example Horizon 2020, the largest research and innovation programme in the world, with a budget of EUR 80 billion, will run from 2014 to 2020 and present an important social innovation component.

It is to be expected that progress will be achieved in the different areas of social innovation, including the development of indicators for social innovation and techniques for social impact measurements.

**Figure 6.1 DG Growth’s activities on social innovation**



Source: authors’ elaboration

The DG Growth specifically, in coordination with other directorates of the European Commission, aims to foster social innovation in Europe through different approaches and tools (see Figure 6.1).

Three of the milestones representing the background of the EU approach to social innovation are the Commission's Communication "Europe 2020 Flagship Initiative Innovation Union" (Sec (2010) 1161), the study "A Map of Social Enterprises and their Eco-systems in Europe" (Wilkinson C., 2014) and the Commission's Communication "Reviewing Community innovation policy in a changing world".

The Commission's Communication "Europe 2020 Flagship Initiative Innovation Union" emphasizes that innovation should encompass not only new or improved products and processes, but also services, new marketing, branding and design methods and new forms of business organisation and collaborative arrangements. Innovation is increasingly understood as an open system where different actors collaborate and interact.

Accordingly, public support for innovation should promote open collaboration among all stakeholders. Thus the Commission invites Member States and the European Community to:

- Continue to invest in education, research and development, innovation and Information and Communication Technologies (ICTs) in spite of fiscal constraints;
- Improve the linkage between EU and national research & innovation systems;
- Modernise the EU education systems at all levels, for example by increasing world-class universities, raising skill levels and attracting top talent from abroad;
- Facilitate the free movement of knowledge;
- Simplify the access to EU programmes and increase their leverage effect on private sector investment;
- Enhance cooperation between the worlds of science and the world of business, removing obstacles and putting incentives in place;
- Remove barriers for entrepreneurs to bring "ideas to market", for example through better access to finance, more affordable Intellectual Property Rights, smarter and more ambitious regulations and targets;
- Launch the European Innovation Partnerships to accelerate research, development and market deployment;
- Identify and give visibility to successful initiatives, and benchmark progress;
- Improve the work with EU and international partners.

The study "A Map of Social Enterprises and their Eco-systems in Europe" defines social enterprises, and maps them alongside the body of laws related to their activities, the public policies and the social investment markets aimed at promoting social entrepreneurs in Europe. It also develops recommendations for EU for future research and policy action to support the growth of social enterprise in Europe.

The European Commission's Communication "Reviewing Community innovation policy in a changing world" underlines the role of investment in research and innovation so to enable a sustainable economic recovery. The aim of this communication is to identify gaps and propose policy orientations that could improve framework conditions for innovation. Member States and their regions were encouraged to expand their innovation policies by implementing national and regional innovation strategies and developing evaluation procedures.

Some important instruments that the European Commission is using to support the diffusion of social innovation are projects funded under different initiatives. Examples include:

- **Social Innovation Europe (SIE)** is a major project funded by DG Growth to enable networking & to provide information. The SIE initiative is working to connect over 3000 policy makers, entrepreneurs, academics and third sector workers with other innovators from across Europe<sup>3</sup>.
- **SELUSI (Social Enterprises in Europe)**, is a FP7 project that looked at over 550 social ventures and examined how these insights can spark change and innovation

---

<sup>3</sup> For more detailed information visit: <https://webgate.ec.europa.eu/socialinnovationeurope> (Accessed online, August 13th, 2015).

at a much larger scale. It looked at business models of social ventures in five countries identifying which specific practices evolved by social ventures are particularly successful, and how and by whom – be it social enterprise, public sector body or mainstream business – they can be most effectively scaled-up<sup>4</sup>.

- **BENISI (Building a European Network of Incubators for Social Innovation)**, a FP7 project launched by the European Commission in 2013 with the aim to build a network of incubators for social innovation across regions and countries. This network facilitated the identification of 300 social innovation examples and enhanced their scaling up<sup>5</sup>.
- **TRANSIT (Transformative Social Innovation Theory)**, also funded within the FP7 framework, it aimed to develop a theory of transformative social innovation which is about empowerment and change in society. It is co-funded by the European Commission and investigates: the conditions necessary for social innovations to lead to systemic change; the role of game-changers, transformative discourses & paradigms therein; (dis)empowerment of actors in transformative social innovation (TSI) processes<sup>6</sup>.

Beside projects, the EC is supporting a range of other initiatives to enhance social innovation. To assist Member States efforts in the design and implementation of employment and social reforms at European, national as well as regional and local levels, the European Parliament and the Council reached a political agreement on the EU programme for Employment and Social Innovation (EaSI) with a proposed budget of €815 million for the 2014-20 period.

EaSI will integrate - by means of policy coordination, analysis and sharing of best practices - the coverage of three existing programmes: Progress (Programme for Employment and Social Solidarity), EURES (European Employment Services) and the European Progress Microfinance Facility. Together with the European Social Fund, the Fund for the European Aid for the most Deprived and the European Globalisation Adjustment Fund, EaSI forms the fourth pillar of the EU Initiative for Employment and Social Inclusion 2014-2020.

The European Commission, specifically the DG Growth, Internal market, Industry, Entrepreneurship and SMEs, has been also promoting – since 2012- the European Social Innovation Competition. In 2015, out of 1,408 ideas that entered in the competition, 10 finalists have been selected and are competing for the three prizes of €50,000. The award ceremony will take place on 25 November 2015 in Brussels.

Based around the theme 'New Ways to Grow' the competition aims to support individuals and organisations with entrepreneurial, game changing ideas for social innovation projects.

In order to help local, regional and national actors to promote social innovations in the EU Structural Funds, the European Commission has published in 2013 the Guide to Social Innovation. This guide provides examples of projects financed by the ERDF and ESF in the 2007-13 period and a step-by-step approach to the design and implementation of a favourable environment for fostering and up-scaling social innovation at local level. The guide ends with a handy ten-step method for developing social innovation.

Despite the increasing number of projects and initiatives, the differences in the general innovation performances within the EU are still very high and diminish rather slowly. The innovation gap widens at regional level where the innovation performance has worsened in almost one fifth of EU regions according to the Regional Innovation Scoreboard 2014, which complement the Innovation Union Scoreboard (IUS) 2014.

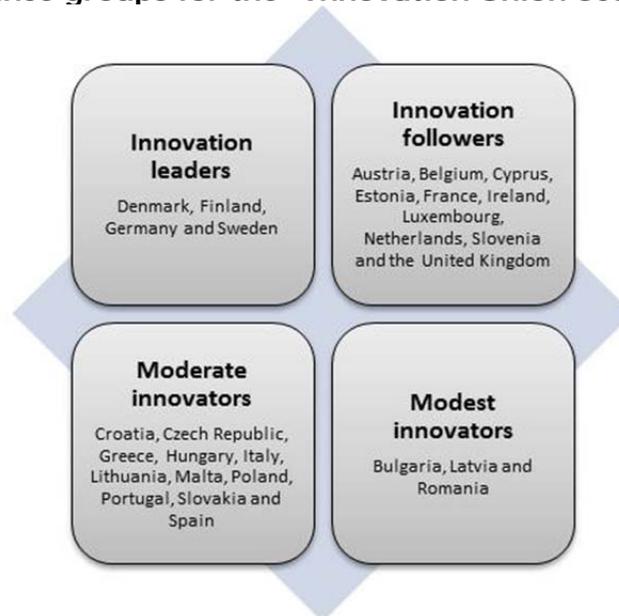
---

<sup>4</sup> For more detailed information visit: <http://www.selusi.eu/> (Accessed online, August 13<sup>th</sup>, 2015).

<sup>5</sup> For more detailed information visit: <http://www.benisi.eu/> (Accessed online, August 13<sup>th</sup>, 2015).

<sup>6</sup> For more detailed information visit the website: <http://www.transitsocialinnovation.eu/> (Accessed online, August 13<sup>th</sup>, 2015).

**Figure 6.2 Performance groups for the “Innovation Union Scoreboard” 2014**



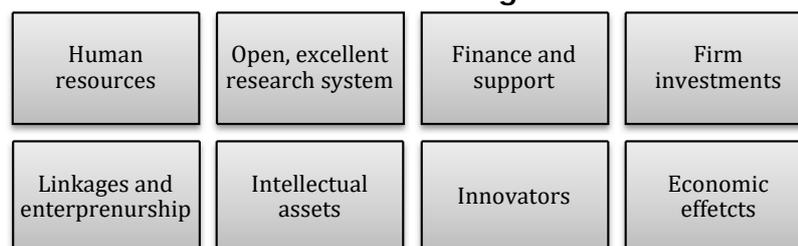
Source: EU Innovation Union Scoreboard 2014

IUS annually provides a comparative assessment of the research and innovation performance of the EU Member States. It helps covered States to assess areas in which they need to concentrate their efforts in order to boost their innovation performance<sup>7</sup>.

In 2014 the overall ranking within the EU remained relatively stable, with Sweden at the top, followed by Denmark, Germany and Finland. Portugal, Estonia and Latvia were the countries that have most improved over the last years. Overall the Innovation Union Scoreboard places Member States into four different performance groups.

The most innovative countries perform best on all dimensions: from research and innovation inputs, through business innovation activities up to innovation outputs and economic effects, which reflects a balanced national research and innovation system. The Innovation leaders and the Innovation followers have continuously the smallest variance in their performance across all eight innovation dimensions. The Innovation leaders are mostly on top and clearly above the EU average.

**Figure 6.3 Innovation Union Scoreboard: the eight innovation dimensions**



Source: authors' elaboration

Only in the second dimension open, excellent and attractive research system, Germany scores slightly below the EU average. However, some other countries reach top scores when looking at individual dimensions. Below is a Table summarizing the countries that score best in each of the eight dimensions

<sup>7</sup> In addition to EU Member States IUS covers Serbia, Former Yugoslav Republic of Macedonia, Turkey, Iceland, Norway and Switzerland. On a more limited number of indicators it also covers Australia, Brazil, Canada, China, India, Japan, Russia, South Africa, South Korea and the US.

**Table 6.1 Best Countries scores per dimension**

<b>Innovation dimensions</b>	<b>Countries scoring best per dimension</b>
Human resources	Sweden, Finland, Ireland and United Kingdom
Open, excellent and effective research systems	Denmark, the Netherlands, Sweden and United Kingdom
Finance and support	Estonia, Finland, Sweden and Denmark
Firm investments	Sweden, Germany, Finland and Slovenia
Linkages and entrepreneurship	Denmark, United Kingdom, Belgium and Sweden
Intellectual assets	Denmark, Austria, Germany and Sweden
Innovators dimension	Germany, Luxembourg, Sweden and Ireland
Economic effects	Ireland, Germany, Luxembourg and Denmark

Source: authors' elaboration

Overall, the EU annual average growth rate of innovation performance reached 1.7% over the analysed eight-year period 2006-2013 with all Member States improving their innovation performance. Portugal, Estonia and Latvia are the innovation growth leaders. The lowest innovation growth rates were recorded in Sweden, the UK and Croatia.

**Box 6.1 Denmark: Innovation Leader**

The Nordic Council of Ministers has recently established a pan-Nordic working group on social entrepreneurship which will map initiatives that can stimulate social entrepreneurship and social innovation in the Nordic region as part of a drive to include vulnerable groups of people into working and social life. This is part of the Sustainable Nordic Welfare programme in the framework of which Denmark has launched the Innovation Strategy: Denmark A Nation of Solutions (2012-20). It represents a shift to a demand-driven innovation policy approach, with enhanced knowledge flows and stronger innovation capabilities.

The Danish welfare system is traditionally based on a large public sector but recently the Danish municipalities are finding themselves with shrinking budgets and an expected 60% growth in the 65+ age group over the next thirty years.

An important role is in this case played by the Danish Municipality Network on Social Innovation run by the Danish Technological Institute as a platform for local government representatives to receive and exchange knowledge and inspiration related to social innovation. Currently, 30 municipalities, representing roughly half of the Danish population, have joined the network – and the number is increasing.

Another relevant initiative is DANSIC (Danish Social Innovation Club) which is trying to create a 'platform', where social innovative ideas and projects can be discussed and developed to find new solutions to the profound economic and societal challenges Denmark faces right now.

**Box 6.2 United Kingdom: Innovation Follower**

The UK has an estimated £24 billion social enterprise industry and has come to be regarded as a global leader in this field.

Social enterprises and social ventures in the UK are supported by a growing industry of intermediaries – social venture funds, incubators, service designers, impact monitoring agencies, specialist recruitment consultancies, and network providers). Academic institutions are also taking a more active interest in social innovation (e.g. Oxford University, Northumbria University, Glasgow Caledonian University).

Innovation does take place to some degree throughout the public sector with a number of successful public innovations resulting from collaboration, especially in areas like procurement. The Department for Business, Innovation and Skills (BIS) has responsibility for innovation as well as business regulation and support, higher education, and science.

However, whilst Government spends a lot on research and development, since 2010, UK innovation performance has been "stable," with a small decline in 2013. Its relative weaknesses are in sales share of new innovations and SMEs with product and/or process innovations.

More needs to be done to reconfigure infrastructures which are hindering progress as well as unlocking financial and institutional support. There is also a need to develop the skills and capacity to design, grow and scale social innovation.

**Box 6.3 Portugal: Moderate Innovator - Growth Innovation Leader**

Despite the severe crisis that the country is undergoing, the Portuguese social economy is benefiting from an unprecedented development.

It is striking to see that the Portuguese social innovation structures are characterised by many

exchanges and collaborations and a large variety of actors (public institutions, associations, companies, foundations, patrons, educators etc).

In 2013, the Portuguese Parliament voted a Basic Law for Social Economy which enables to clarify different entities' legal regimes, to consolidate their networks and their governances while giving them strong financial tools. A specific tax status is also assigned to them.

The IES (Social Entrepreneurship Institute) is a non-profit association that identifies, supports and trains social entrepreneurs. It also organises awareness events addressed to the general public (conferences and seminars). In partnership with the INSEAD, the IES provides a range of tools for social entrepreneurs using a hybrid approach from academic research and field realities. Moreover, IES has developed the national mapping of Social Innovation and entrepreneurship Initiatives in Portugal (MIES) in partnership with IAPMEI, Instituto Padre António Vieira (IPAV), Calouste Gulbenkian Foundation and the EDP Foundation.

It is important to note that Portugal is the only European country to have mapped its social innovation. The MIES methodology relies on the competitiveness analysis of the identified innovative business model. The aim is to extract and spread success stories and best practices from it.

All the recent developments – changes in the economic and social context, policy developments, in the social field, the development of new analytical frameworks – have moved policy support for social innovation towards the centre of the political agenda. The future is linked to the production of social innovations and Europe should contribute to establish a favourable economic, legal, social 'milieu' to support them.

# 7 Review of policy measures stimulating social innovation in selected sectors

## 7.1 Environment

### **The environmental sector**

The term environmental sector refers to science concerned with the physical, chemical, and biological conditions of the environment and their effect on organisms. It also implies all environmental protection, assessment, compliance with environmental regulations, pollution control, waste management, remediation of contaminated property and the provision and delivery of environmental resources.

### **The role of social innovation**

Social innovation is a powerful and valuable tool in the environmental sector. Due to its participatory and creative nature, it is well positioned to address environmental challenges, which are multifaceted and often require societal or behavioural shifts towards more sustainable options.

Business and social innovation can play an important role in bringing new solutions to address challenges such as, de-forestation, indebtedness, social exclusion, and the promotion of eco-friendly practices (Guillen G. et al., 2013). Among the key assets for innovation, the need for sustainable business models, empathetic and change-making leadership skills within local communities, and collaboration among multipliers of change, such as flagship organizations, investors, educational institutions, and others are the main ones.

There are a number of environmental drivers that are already instigating social innovations, such as waste issues, transport and pollution problems, as well as declines in biodiversity and degradation of ecosystem services, for example, pollination and flood protection by wetlands. Although these drivers are environmental, they have social repercussions, such as health problems caused by air pollution, resource depletion due to inefficient waste disposal, exacerbation of flooding from damage to natural defences and food insecurity and agricultural issues exacerbated by poor soil quality or lack of pollination.

In other words, societal and environmental issues are often interlinked and mutual solutions are possible. Social innovation can complement technological innovation and policymaking to achieve systemic, long-lasting changes in lifestyles and society to tackle environmental issues (SPREAD, 2012).

The aspect of social innovation that blends past elements with new innovations and uses extended networks to support and manage relationships can make a difference in managing environmental issues.

Social innovation can:

- Foster environmental awareness and attachment to local ecosystems. At a local level, one of the best means to achieve awareness and attachment is through informal experiential activities, such as field trips and social activities. At a national level, policy can increase awareness through campaigns, programmes, educational initiatives, leading by example and procurement.
- Build capacity for social entrepreneurship. This could be achieved through programmes to develop leadership and entrepreneurial capacity, specifically for problem solving around environmental issues. These programmes could be targeted

at established social entrepreneurs with existing networks and links. Financial and institutional support could be provided to hubs and incubators (see Box 19), which bring social innovations together in the same physical and mental space to promote co-working and co-ordination of activities.

- Foster dialogue between key stakeholders. This is essential for effective social innovation. In addition to supporting and promoting hubs and incubators, Biggs, Westley and Carpenter (2010) suggest the use of two tools to facilitate this process:
  - a) **Social network analysis** (Scott, 1991; Freeman, 2006) maps and measures the individuals and groups within a network and the relationships between them.
  - b) **Scenario planning** (van der Heijden, 1996; Peterson, Cumming and Carpenter, 2003; Scarce et al., 2004) is a useful tool to manage dialogue. This requires the consideration of several alternative futures for a region, stimulating the generation of a diverse set of management options. Scenario planning has the additional benefit of moving the focus from potential current conflicts to a collective desired future.
- Provide institutional support. Once groups are formed, their sustainability can be hindered by institutional and financial constraints. Local government can provide a durable base for the social innovation group and financial support. However, funding often requires evaluation and suitable methods and procedures of evaluation need to be developed (see Section 5). There is also a need for acceptance of failure.

Given the complexity around food waste, no single-tiered solution will work and all possible interventions will be needed in order to make a positive contribution to improving global food use. Policies can work if they are part of an intervention mix, made up of social, technical and economic solutions.

### **Policy measures fostering social innovation**

Policy needs to find a balance between providing informed support and guidance and leaving enough freedom to the innovative process. Moreover, it should recognise that there can be no 'one size fits all' solution when it comes to supporting social innovation and there needs to be a degree of tolerance for failure since this is inherent to the innovative process and learning.

Policy can provide support, even before the initiation of social innovations, by helping to create a receptive climate for new ideas in terms of better awareness of environmental issues and more connection to the environment.

A policy area where social innovation might be fostered is represented by the **dialogue between policy and social innovators**. In some cases this could benefit from the formation of **federations or networks** that help to provide one voice to represent a form of social innovation. In addition, it could involve intermediaries to nurture the relationships between social innovators and policy, and facilitate processes of scaling-up and diffusion, where possible.

One of the major areas where policy is already contributing is in the formation of **hubs and incubators** that bring social innovations together and help develop and cross-fertilise ideas. There is also considerable input from policy in terms of supporting research to develop evaluative approaches that allow general principles to be drawn whilst recognising and celebrating the individuality of innovation.

According to Moore and Wetsley (2011) policy initiatives in themselves may be social innovations. Certainly, they may represent key links to successful social innovations – ultimately part of a design that characterizes an innovation, either technical or social, that has been successfully scaled. The more radical the innovation, the more unusual the policy approach may need to be. Tuning policy instruments to the emerging context of innovation, whether social programs or social products, can do much to create the conditions for linking and scaling such innovations, particularly for radical or disruptive innovations (Christensen et al., 2006). However, an understanding and awareness of the demands of each phase of social innovation is crucial. The most useful public policy instruments in this phase bring together different individuals or groups, providing a forum for sharing ideas, identifying the

range of issues that contribute to the complexity of a problem, and building trusting relationships.

**Multi-stakeholder consultations, royal commissions, and participatory planning processes** are excellent examples of tools that help foster new insights, new partnerships, and new solutions.

**Government incentives for environmental technologies**, such as hybrid cars, geothermal heating systems for residences, water- and energy-efficient appliances are a good example for this phase, because these incentives help create a market or market mechanisms for innovations that in many ways, are already established (e.g., Braun and Wield, 1994). Policies in this phase are not intended to support the innovation in the phase when it was first trying to create the hybrid; indeed, a growing body of research demonstrates that regulations and taxes do not encourage the generation of innovations (Chappin et al., 2009). Certain policy instruments will have greater impact on social innovation at specific points in the process.

Recognition of the distinct phases of social innovation is central to understanding which policy will be most suitable; that is, different policies are appropriate for the generation, selection, adoption, and institutionalization processes that any social innovation will need to undergo. **Phase-appropriate government interventions are needed** so to facilitate social innovation and clearly demonstrate that an active role for governments is entirely possible and does not simply require "getting out of the way." Giordano (Giordano A. (2015) policies should take into account the triple bottom line (People, Planet, Profit), necessary to create companies able to balance environmental needs with economic sustainability and social responsibility.

According to Addarii (Addarii F., 2015) it would be important to create **support systems for investees**, concentrating public and non-profit resources in ways that build the capacity to receive investments – these are practices that are central to effective social impact investing.

There is a lack of new financing models. The EU should keep results and not actions into consideration. In order to foster social innovation, a culture of risk and attention to details should be incentivated.

A good example is Portugal where "A strategy for the civic economy in Portugal" has been recently launched: the aim is create a true social investment market and to promote the emergence of innovative public policies, in particular those involving the civil society in the design and experimenting of such policies. The Portugal Social Innovation is the financial base (150 million euros) to sustain development of a new national social investment market to support innovation initiatives and social entrepreneurship in an integrated format.

### **Examples and good practices**

The European Commission supports and drives social innovation via several **suasive approaches**: for example through a number of FP7 and Horizon 2020 projects (e.g. FUSIONS through EPs and RPs and the WP4 inventory).

Several examples are related to the use of **market-based instruments** to support social innovation at the European level, for instance through direct project finance, like the European Social Innovation Competition (which is organized every year by DG Enterprise and Industry to directly support new solutions and raise awareness about social innovation).

Considering **regulatory approaches-using Corporate Social Responsibility (CSR) to activate social innovation** a recent agreement reached in February 2014 between the European Council and the European Commission, suggests that a forthcoming European directive on CSR will require all publicly traded companies with more than 500 employees to report their performance on a number of non-financial metrics every year. It marks the most significant effort to date to mandate non-financial reporting on companies across all sectors of the economy and will require companies to provide "relevant and useful information" concerning environmental performance alongside other core CSR themes such as human rights impacts.

Several authors have developed studies on CSR initiatives that have demonstrated how social innovation can be generated through collaborative approaches between profit and NPOs (Setainidi, Crane 2009; Selsky, Parker 2010). The inter-organizational collaboration is fast becoming a crucial source of innovation in advanced economies.

Public procurement plays an important role for the promotion of **social innovation through public services provision**. In Europe, public authorities spend around 18% of GDP on supplies, works and services. The Public Procurement Directive published in 2011 (EC, 2011), seeks to promote market access opportunities for small and medium-sized enterprises. It requires tendering bodies to break contracts into lots and reduce the requirements concerning economic and financial capacity. Such policies could be further developed to encourage and promote organisations to tender social innovative solutions to address public service needs.

Public procurement plays a key role in the Europe 2020 strategy as one of the market-based instruments to be used to achieve its objectives by improving the business environment and conditions for business to innovate, and by encouraging wider use of green procurement, supporting the shift towards a resource efficient and low-carbon economy.

An additional area is represented by **the promotion of the competitiveness of the ICT industry** and the support to the take-up of ICT and e-business practices by European enterprises and citizens. Coupled with that however, is the need to improve access to social media and smart phone technology to enable more people to access for example, internet-based food surplus 'matching' services, particularly as they become more decentralised. The use of social media as the mechanism for some social innovations, as well as to communicate about social innovation activities, is a key aspect of improving their take up and spread. However, there are still large numbers of people without access. For this reason Neighbourly Hanger in Serbia has taken a physical approach to making food available to the poor, literally hanging it from a specially designed post in the street, rather than relying on e-technology.

Public procurement guidelines and transparent communication can also support social innovation alongside policies to support funding at every stage of the process.

Enhancing food skills (like for example using food surplus and left-overs) as well as providing food and environmental education within schools could be considered as important best practices to reduce food waste. The FUSIONS inventory includes examples of reducing social isolation through the provision of group activities to learn new food skills,

It is important to keep in mind that different policies must be differentiated and that are appropriate policies for the generation, selection, adoption, and institutionalization processes. Above all, policies that create a market or demand for the innovation (whether it is an idea, program, or technology) are necessary.

### **Barriers for policy measures stimulating social innovation**

**Lack of policy** can hamper the development of social innovation by not providing the right support or even protection. This is reflected in Seyfang and Smith's (2007) and Seyfang and Haxletine's (2012) use of the concept of strategic niche management, which infers social innovation needs to be managed within a niche protected from competitive and market influences.

According to Addarrii (Addarrii F. (2015), the **lack of space for experimentation** represents a major barrier to social innovation. In order to advance with social innovation new synergies are needed.

In their reports for the European Commission, Social Innovation Europe (Davies et al., 2012; Reeder et al., 2012; O'Sullivan et al., 2013; SIE, 2012) highlights **the need for greater and deeper dialogue between policymakers and social innovators**. They recommend that the European Commission keeps lines of communication open between grassroots and policy levels in order to successfully deploy social innovations and address major societal and environmental challenges. However, it is also the responsibility of social innovations to organise themselves so they are accessible to policymakers.

**The scalability/replicability of social innovation** is another main issue (social innovation is local-context based) alongside the lack of appropriate evaluation techniques to measure social innovation and the often intangible benefits they provide.

Pretty and Ward (2001) developed a typology of stages to inform policy on creating conditions to favour the emergence and sustenance of **group-based programmes for the emergence of social innovation in the environmental field**. Their research indicates that a group should have a sense of collective identity, independence and capacity in order to form alliances and communicate with others. Ensuring this state of independence also ensures the social innovation develops along lines that local people desire. If this is lacking, social innovation is unlikely to be successful.

Social innovation can provide novel solutions to environmental challenges addressing also issues that have not been resolved by traditional policy approaches.

**Table 7.1 Summary of policy measures and barriers in the environmental sector**

<b>Policy measures (PM)</b>	<b>Barriers (B)</b>	<b>Related EU Policy area (EUPA)</b>
<b>PM</b> Educational campaigns <b>PM</b> Promotion and dissemination of knowledge/information <b>PM</b> Sharing of best practices	<b>B</b> Lack of financial support	<b>EUPA3</b> Education and training
<b>PM</b> Promotion of projects and coordination activities at national and European Level	<b>B</b> Lack of policy attention and awareness	<b>EUPA1</b> Policy coordination
<b>PM</b> Promotion of ICT access, use and skills	<b>B</b> Lack of financial support	<b>EUPA4</b> Communication networks and technology
<b>PM</b> Extension of the corporate social responsibility (CSR) to social innovation	<b>B</b> Lack of measurement instruments for social innovation	<b>EUPA5</b> Industry
<b>PM</b> Introduction of subsidies and other financial instruments (e.g. support to start new social enterprises)	<b>B</b> Lack of space for experimentation	<b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Improvement/simplification of food waste legislation (e.g. VAT exemption for food donations, Good Samaritan law)	<b>B</b> Lack of supportive and enabling legislative framework	<b>EUPA7</b> Health and food safety
<b>PM</b> Promotion of dialogue between private and public organizations <b>PM</b> Promotion of community engagement in the decision-making process (promotion of public dialogue) <b>PM</b> Promotion of inter-sectoral and intra-sectoral private-private partnerships	<b>B</b> Lack of dialogue between policymakers and social innovators  <b>B</b> Lack of collective identity, independence and capacity in order to form alliances	<b>EUPA1</b> Policy coordination
<b>PM</b> Building new business models for collaboration between regular and social economy (based on the principles of solidarity and mutuality) <b>PM</b> Creation of eco-labels <b>PM</b> Public procurement guidelines <b>PM</b> Application of the extended responsibility principle	<b>B</b> Lack of dialogue between policymakers and social innovators  <b>B</b> Lack of supportive and enabling legislative framework  <b>B</b> Lack of policy attention and awareness	<b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Promotion of product recycling, component reuse	<b>B</b> Lack of policy attention and awareness	<b>EUPA2</b> Entrepreneurship and SME

## 7.2 Health

### **The health sector**

The health sector relates to medical and healthcare goods or services. It includes hospital management firms, health maintenance organizations (HMOs), biotechnology and a variety of medical products.

Health care refers to the work done in providing primary care, secondary care, and tertiary care, as well as in public health.

Access to health care varies across countries, groups, and individuals, largely influenced by social and economic conditions as well as the health policies in place.

### **The role of social innovation**

Europeans are living healthier and longer lives. With the improved health and ageing population, demand on long-term care and chronic diseases, however, increases. From an economic perspective, this also puts an increased pressure on public spending. For example, public expenditure on long-term care grew by 4.8% annually between 2005 and 2011 across the OECD countries (OECD, 2013a). Therefore, the need for new solutions, innovation investments and non-technical innovations in the health sector is increasing (Mulgan et al., 2007; Mapham & Kornik, 2011). Beyond elderly care, social innovation could play an important role for addressing areas such as dementia care, disease prevention and healthcare delivery. In this literature review authors have made an attempt to explain the drivers behind social innovation in the health sector and exemplify some of the challenges and social innovation in the sector.

There is no universal understanding of what the idea of social entrepreneurship means. OECD defines social entrepreneurs as “private activity conducted in the public interest, organised with an entrepreneurial strategy, but whose main purpose is not the maximisation of profit but the attainment of certain economic and social goals” (OECD, 2013b). Social entrepreneurship often involves new innovations and could accordingly be vital for the future health promotion and play an important future role in the areas of care and healthcare (De Leeuw, 1999; European Commission, 2010). Moreover, non-technical innovation will play an important future role in many service sectors, including the health sectors. It is, however, important to keep in mind that while entrepreneurs may play an important role for initiating innovation, the process of scaling up innovation also must involve governments and large businesses (Mulgan et al., 2007). Examples on social entrepreneurship in the health sector are self-help health groups (networks), neighbourhood nurseries or state-sponsored healthcare delivery.

In a recent study, Roy et al (2014) analyse the outcome of social enterprises' involvement in healthcare and their ability to address health inequalities. Through a meta-study, they conclude that, while social enterprises can build social capital, there are no evidences that social enterprises have a positive impact on health (e.g. mental health, self-reliance and health behaviour). They also conclude, however, that there is a clear need for more research on impacts from social enterprise activity.

According to Mattson (Mattson B., 2015) it is not clear what social innovation is. In fact, it might just be an innovation in the same way it would have been before we learned the concept of social innovation. Social innovation must be something that generates value for society beyond what comes directly from the product or service itself.

### **Policy measures fostering social innovation**

As a result of a number of different factors, e.g. an aging population, long-term survival of individuals with chronic diseases needing on-going health care, availability of a wide range of new and expensive treatments, and increased consumer expectations, the health systems in developed countries are under pressure to find measures to address these challenges. Among the possible tools that could be used to promote social innovation in the health sector:

**Information and communication technologies:** As there is an increased pressure to reduce healthcare costs in conjunction with new ICT applications, technology can play an important part in not only reducing healthcare costs, but also in improving health service delivery for citizens e.g. by encouraging them to become more actively engaged in their health. Mobile technology (mHealth) includes telemedicine, health apps for mobile phones, and medical devices which can be monitored remotely. mHealth technologies have the potential to diversify and change health care delivery, increase patients access and management of data, improve health knowledge and patient choice.

According to Wicks et al (2013) m- and e-health can reduce the fiscal and social challenges of managing and preventing chronic diseases by reducing inefficiency in health care: costs can be reduced by enhancing the quality of health care – i.e maintaining patient contacts in between clinical visits - and by allowing individuals to share, manage and adopt healthy behavior.

**Online networks and platforms:** In the International Society for Quality of Life Research's (ISOQOL) 19th Annual Conference 2013 researchers presented peer-to-peer support networks such as PatientsLikeMe and 23andMe as emerging trends.

PatientsLikeMe is an online network which allows patients to share, relate and contrast different diagnoses and treatments with peers who have the same conditions/illness, anywhere in the world. Furthermore, PatientsLikeMe gives individuals the possibility to communicate and discuss test results, compare the effects of different medications, treatments and give and take advice from each other. In this way individuals can become more informed and empowered, which in turn can lead to a change in the patients' and the care teams' relationship.

A second innovative platform is 23andMe, which also is an online community that uses genetic data extracted from saliva samples collected by mail. After the saliva is analyzed, customers are granted access to a web site in which they are given detailed information on their results i.e. what the results entail but also the predicted risks of diseases such as Alzheimer's or psoriasis. The achieved results can then be discussed at a forum, similar to PatientsLikeMe, however the sharing of data is more carefully controlled (Wicks et al., 2013).

**Mobile Apps:** Ashurst et al (2014) consider that apps might be helpful especially for teenagers and young adults with diabetes to prepare and engage more at their appointments. The authors constructed an app challenge where teams, including at least one young people with type 1 diabete (YPD), developed apps.

The app challenge resulted in six teams developing and submitting an app. Two apps aimed to facilitate agenda setting in clinic consultations, two enabled data logging and the remaining two helped insulin dose calculation. The apps thereafter went through a trial, for which 83 people registered. The result showed that the agenda setting apps were most valued for helping with preparation and focus setting of clinical appointments.

**Social innovations especially for elderly care:** According to Lattanzino et al (2014) there is an increasing demand for e-health care services and smart technologies for elder with chronic diseases or for active aging.

There have been several study projects in Europe regarding elderly care and social innovations. As examples, the project ACCOMPANY provides a robotic companion as part of an intelligent environment and the project DALI aimed to help elderly people maintain their mobility through the development of a device that facilitate navigation in crowded and unstructured spaces.

According to Mattson (Mattson B., 2015) in order for technologies- like m-Health or e-health tools - to become an innovation and not just a good idea, there needs to be an appropriate financial payment model which is currently not in place

### **Examples and good practices**

In EU, the European Regional Development Fund, ERDF, finances direct aid for company investments, in particular small and medium sized enterprises, to create jobs linked to research and innovation, including social infrastructure such as hospitals and nurseries. For the fund's new period, 2014-2020, the shift from institutional to community-based care is stated in the fund's regulation.

As an example of earlier projects concerning social innovation in the health sector financed by ERDF, the Living Lab on Wellbeing Services and Technology in Western Finland could be mentioned. The project focuses on health and welfare services through an innovation platform that produces services for elderly people in a Public-Private-People partnership. The Living Labs aims at enhancing cooperation between municipalities and business and, among other things, facilitating for elderly people to live at home independently due to technology devices (European Commission, 2013a).

An interesting plan is the new e-Health Action plan of the European Commission that encourages Member States to develop and share their national e-Health strategies, "taking into account international recommendations and deploying promising solutions for active and healthy ageing at a larger scale" (European Commission, 2012).

There have also been several study projects in Europe regarding elderly care and social innovations and a number of EU-funded projects in the area of ICT for Aging well (European Commission, 2013b). As examples, the project ACCOMPANY provides a robotic companion as part of an intelligent environment and the project DALI aimed to help elderly people maintain their mobility through the development of a device that facilitate navigation in crowded and unstructured spaces.

2012 was also the European year for active aging. It aimed at encouraging policymakers and stakeholders to take action and create better opportunities for active aging.

At national level, there are many national programs regarding elderly care and social innovation ongoing in the EU Member States and each country has its own regulatory and compliance policies.

For instance, in Sweden, the innovation agency VINNOVA was commissioned by the government to analyse social innovation in the health care sector and for the seriously ill elderly (VINNOVA, 2014). They evaluated four possible social innovations, which have been more or less implemented. Three of the evaluated areas were minor home help services to prevent fall accidents, facilitation for remaining living in one's own home and the use of 'care dogs'. The trained dogs are supposed to bring several values to the elderly, such as increased physical activity and well-being.

Generally speaking, policies could help to support healthcare network to share, relate and contrast different diagnoses and treatments with peers who have the same conditions/illness and could play a pivotal role in decreasing health inequality through social enterprises.

### **Barriers for policy measures stimulating social innovation**

There are a number of barriers that need to be overcome in order to stimulate social innovation in the health sector.

**Implementation of ICT:** A study conducted by Currie et al., (2014) shows that the ICT infrastructure varies considerably between the 28 EU Member States. The Scandinavian countries together with Germany, Ireland and the UK have all well-developed ICT infrastructures and mature health and social care systems. Whereas, seven of the 28 EU Member States - Croatia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Spain - present a large variation in terms of ICT availability and usage. It is therefore of importance that policy-makers acknowledge these differences across nation states as e-Health or mHealth policy which may be developed for one country may not be relevant for another (Currie et al., 2014).

The literature also shows that there are large differences between countries in terms of technology availability, which could pose a hinder for e-health. In addition, there is a concern that e-health may lead to a digital divide and further increase the gap between individuals who already have access to computers and related skills and those who have not (Wicks et al., 2013).

A study conducted by Nielsen et al (2014) shows that the implementation of mobile IT is not always simple and without tensions. In 2001 the Copenhagen City Council decided to invest in Personal digital assistants (PDAs) in order to improve documentation: after 5 years (2002-2007) of among others employee training, the PDA was implemented in 2007. For home managers the implementation of PDA allowed them to receive more accurate information about working hours, which in turn would improve strategic decision-making. However, the outcome lacked efficiency gains and instead the budget was exceeded due to technical problems and the PDAs having a shorter lifespan than expected.

The study showed that implementation of mobile IT in day-to-day work is not without friction and the adoption is an uncertain change process where many stakeholders are involved (managers and healthcare personnel), which also implies that there occasionally are competing interests, varying levels of commitment and conflicting values. The results of the study are in line with previous research that shows how there is no guarantee of IT stakeholders' adoption. Users' participation and involvement in the design is one way to overcome barriers and improve efficiency.

Other issues concern the **privacy and security of citizens' personal health data**, in order to launch m-Health on a large scale it is vital that citizens' personal health data are secure. M-Health data are today gathered in the form of cloud computing and can contain personal health data being transferred across different legal and regulatory jurisdictions (i.e., outside the EU). Thus it is of high importance than the EU establishes a regulatory framework that protects the citizens' privacy and security (Currie et al., 2014). Currie et al (2014) argue that in order for health organizations and citizens to invest in m-Health it is required that an all-embracing pan-European policy on data protection and privacy is established.

**Table 7.2 Summary of policy measures and barriers in the health sector**

<b>Policy measures (PM)</b>	<b>Barriers (B)</b>	<b>Related EU Policy area (EUPA)</b>
<p><b>PM</b> Promotion of ICT access, use and skills (e.g. telemedicine and health apps for mobile phones, e-Health Action plans; promotion of a regulatory framework on e-health and m-health)</p> <p><b>PM</b> Promotion of online platforms (e.g. support of online communities)</p>	<p><b>B</b> Privacy and security of citizens' personal health data; different national regulations</p> <p><b>B</b> Acceptance from different stakeholders (e.g managers and care workers)</p>	<b>EUPA4</b> Communication networks and technology
<b>PM</b> Introduction of subsidies and other positive financial instruments (e.g support of company investments)	<b>B</b> Lack of financial support	<b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Promotion of online platforms (e.g. services for elderly people)	<b>B</b> Lack of financial support	<b>EUPA8</b> Social protection and inclusion

## 7.3 Workplace

### **The workplace sector**

The workplace is the physical location where someone works. Such a place can range from a home office to a large office building or factory. The workplace is one of the most important social spaces other than the home, constituting a central concept for several entities: the worker and his/her family, the employing organization, the customers of the organization, and the society as a whole. The development of new communication technologies have led to the development of the virtual workplace, a workplace that is not located in any one physical space.

### **The role of social innovation**

Workplace innovations are work practices aiming at more flexibility in the work organization, enhanced labor-management cooperation, greater employee involvement in decision-making, and financial participation of the employees (Ichniowski et al., 1996). Workplace innovation implies management aspects (by absorbing external knowledge), flexible organization, smart operational procedures, ongoing improvement of skills and competences, networking and modernization of labor relations and industrial relations (Totterdill, 2010; Pot, 2011). In literature the potential positive or negative outcomes on the employees are strongly discussed. However, also the effect of workplace innovations on firm-level outcomes has been studied intensively (Kalmi & Kauhanen, 2008).

Now it is widely acknowledged among many European policymakers that workplace innovation is important because of its social, economic and labor market impact (Totterdill, 2012). Several studies identify a positive link between workplace innovation and innovation in products, markets and technology. Beblavý, Maselli and Martellucci (2012) supplement basic data from the European Working Conditions Survey by several case studies and discover a strong correlation between country-level presence of various aspects of workplace innovation and technological and economic progress as well as evidence to support the thesis that workplace innovation yields beneficial results on the organizational level. Oeij, Dhondt and Korver (2011) use empirical research findings from the "Netherlands Employers Work Survey" (NEWS) to show that workplace innovation activities boost organizational performance. NEWS was conducted in 2008 and surveyed over 5000 firms in the Netherlands showing that organizations that are active in workplace innovation are reporting an improved organizational performance (self-reported improved labor productivity, growth in turnover, and growth in profit/financial results). They come to the result that workplace innovation is helpful in order to become more competitive (in case of private organizations) or cost-effective (in case of public organisations). In a subsequent paper Oeij et al. (2012) examine the relation between workplace innovation and organizational performance and employee commitment by again using data from the NEWS study to analyze this relation. They come to the result that workplace innovation is not only positively and significantly related to quantitative and qualitative organizational performance but also to employee commitment.

### **Policy measures fostering social innovation**

The benefits of workplace innovation do often apply to many companies, relativizing the associated costs and risks and making the innovation a public good. The fact that innovation can be very costly and risky and on the other side provides benefits to many or all companies makes it a public good which is likely to be under-produced without governmental support (see Forsyth et al. 2006). To overcome the mentioned barriers by governmental support Beblavý, Maselli and Martellucci (2012) identify five areas for potential action by policy-makers to promote workplace innovation:

1. **building trust** and workplace institutions by fostering **social dialogue**;
2. **overcoming risk aversion** and **lack of information**;
3. **overcoming regulatory barriers** and **uncertainty**;
4. **leading by example** by implementing workplace innovation in the public sector;

## 5. taking action at the EU level.

According to Alasoini (2008) and other authors (e.g. Beblavý, Maselli and Martellucci, 2012; Forsyth et al., 2006) the dominant approach on policy measures to promote workplace innovation are the so called “soft” or “light touch” approaches. These approaches are less strict than legal rules enforced by the state (“hard” regulations) and seek to encourage workplace innovation by providing or showing possible benefits. Forsyth (2006) states that soft approaches are more likely to change the behavior of regulated actors and are often referred to as a “self regulation”, because the regulated actors are free to transpose the desired behavior (in this case the promotion of innovation at the workplace) or not. Godard (2002) describes this approach as “normative cultural approach” to regulation involving the governmental attempt to “shape cognitive and normative rules that guide employer behavior and hence employer beliefs about what constitutes rational and desirable behavior”. This approach implies that workplace innovation is consistent with employer interests but the employer is lacking the required knowledge, expertise or capabilities to implement it.

### Examples and good practices

There is a range of regulatory tools to facilitate a soft approach on promoting workplace innovation. One of the most popular tools is by **providing information and education/training** as well as recommendations on education and information (e.g. Alasoini, 2008; Trubek and Trubek, 2005; Forsyth et al., 2006; Sisson and Marginson, 2001; Beblavý, Maselli and Martellucci, 2012). The information, education or training material could be a result from a research program, which leads us to another soft approach, the development or funding programs (see for example Forsyth et al., 2006; Beblavý, Maselli and Martellucci, 2012) with the aim to support, promote, transfer or develop social innovation. This also includes the funding of learning networks, which according to Alasoini (2008) are a good tool trade experiences in workplace innovation between countries and sectors by creating new kinds of cooperation and “new kinds of potential for mixing up the traditional roles of actors in development work”, especially if they operate as “open source based forums for joint development”.

Other “soft” policy measures to promote workplace innovation can be **awards and subsidies provided by the government** (e.g. mentioned by Forsyth et al., 2006) to reward workplace innovations and boost interest in workplace innovation.

A similar approach is the use of public purchasing policy to persuade private contractors to adopt better work practices (Forsyth et al., 2006; Binks, 2006) which reward companies that promote workplace innovation and ‘punishes’ those who don’t.

A further measure is the **use of the public sector as a ‘model employer’** (e.g. Beblavý, Maselli and Martellucci, 2012; Forsyth et al., 2006) to strengthen trust in workplace innovation, which shows that workplace innovation actually works and showcases possibilities about how to implement workplace innovation. Keep and Payne (2002) suggest **fiscal incentives** to promote workplace innovation. Such fiscal incentive can be a minimum wage to move companies away from a low skill, low wage strategy and thereby bring more skilled and innovative personnel into the companies.

Another way to promote workplace innovation through legal actions is by **overcoming regulatory barriers and uncertainty**. This can be done for example by establishing a more flexible labor law enabling workplace innovations (Beblavý, Maselli and Martellucci, 2012). Beblavý, Maselli and Mantelucci (2012) also mention assistance in identifying legal or **regulatory uncertainty** and the provision of clear, binding answers as a good policy measure to promote workplace innovation because new, innovative forms of workplace organization may collide with existing or upcoming laws.

Although the soft approach seems to be a good way to promote workplace innovation without legal restrictions there are some concerns about limitations to this approach. Forsyth et al. (2006) raise the possibility that the soft approach could be a weak regulatory alternative to the traditional legal mechanisms that allow government to evade accountability and shift the potential problems that workplace innovation may cause completely to the innovating organization. Some researchers also question the chance of

such 'minimalist approaches' to lead to widely used workplace innovation (e.g. Keep and Payne, 2002). Forsyth et al. (2006) also mention, that government might not be able to persuade employers to adopt workplace innovation in a way that also benefits employees. For example employers that solely impose innovative practices on employers instead of incorporating them into the development of workplace innovations.

An increasing number of countries in Europe and around the world are already promoting or developing programmes on workplace innovation on national level (Eeckelaert et al., 2012; Alasoini, 2009). These national programmes are accompanied by initiatives that are not funded by the government directly but support them by offering advice and practical solutions to improve work.

The programmes by country are reported in the box below (Eeckelaert et al., 2012).

### **Box 7.1 Workplace innovation programmes in European countries**

**Belgium:** the national programme Flanders Synergy – Innovatie van werk en organisatie (Innovation of work and organization) - aims to promote workplace innovation and development in response to the Lisbon Strategy. It was launched in 2006 and funded through the European Social Fund Agency (ESF) of Flanders. The purpose of the programme is the promotion and initiation of organizational innovation in Flemish companies and organizations.

**Czech Republic:** 2 main programmes on workplace innovation are currently running: INOVACE and the Enterprises and Innovation Programme both financed by the European Regional Development Fund (ERDF).

The INOVACE programme has been launched by the Ministry of Industry and Trade 2004-2006 and aims to implement advanced management methods, execute significant changes in organization structure and in strategy.

The Enterprises and Innovation Programme aims to support technical (products and processes) and non-technical (organizational and marketing) innovations, the development of links with research and development institutions, the expansion of innovative activities with small and medium-sized enterprises and the increase in the number of enterprises engaging in their own research and development.

**Ireland:** the Workplace Innovation Fund launched in 2007 aims to support Irish firms to improve productivity and performance through greater levels of employee involvement and engagement, and to support initiatives that encourage employee empowerment and participation, support workplace learning and creativity, improve communications and consultations with employees, facilitate workplace innovation through development management and leadership capacity, launch human resource processes to foster business and employee needs and stimulate team working.

**Finland:** the Workplace Innovation Programme ran from 2004 to 2009 and was replaced by a follow-up programme in 2010. The programme focuses on practical applications but also promotes research linked with organizational development. The idea is to generate new innovative workplace solutions through close cooperation and interaction between workplaces, researchers, consultants, public authorities and social partners.

**France:** there are currently 2 programmes on workplace innovation running: the Innov'acteurs and ANACT (National Agency for the Improvement of Working Conditions - 'Agence Nationale pour l'amélioration des conditions de travail').

Innov'acteurs was founded in 2002. It brings together more than 80 companies, associations, communities and governments from all over France to develop participatory innovation in organizations. It is funded by members of the programme.

ANACT (National Agency for the Improvement of Working Conditions - 'Agence Nationale pour l'amélioration des conditions de travail') shares information on participatory innovation via its website, carries out studies on innovation and develops innovative projects in the area of working life.

**Germany:** 2 initiatives are running on workplace innovation.

The Working Learning Developing Skills (WLDS): Potential for innovation in a modern working environment is managed by the German Aerospace Centre (Deutsches Zentrum Luft- und Raumfahrt; DLR). The programme within the Federal Ministry of Education and Research's national research programme financed 350 work-oriented projects with a budget of over 26 million €. Projects were mostly ran by research institutes and universities, but also included combined

projects (consultancies and development agencies).

INQA - Die Initiative für eine Neue Qualität in der Arbeit (The initiative for new quality in work) was founded in 2002. In responsibility of the Federal Institute for Occupational Safety and Health (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin; BAuA), it receives funding from the national government, the regions, social partners, social insurance institutions, foundations and companies. It organises networks of specialised groups providing a platform for the development, exchange and transfer of practical knowledge.

**Sweden:** Innovative Sweden was founded in 2004. The Innovation strategy is implemented by the Swedish Agency for Innovation Systems, VINNOVA (Verket for innovations system) and the Ministry of Industry, Employment and Communications, the Ministry of Education and Science and the Ministry for Foreign Affairs.

The strategy focuses on long-term promotion of growth and emphasises the importance of promoting flexible production, better skill utilisation, networks, diversity and participation leading to creative and dynamic labour markets in industry and the public sector.

**The Netherlands:** The Center for Social Innovation is not a programme but a center with the aim to promote job satisfaction and productivity in the Netherlands. It is an initiative of the Dutch 'innovation platform' (government-initiated platform to boost innovation) in cooperation with employers' associations (AWVN and FME), trade unions (FNV Bondgenoten and CNV Bedrijvenbond), academic institutions (RSM Erasmus University in Rotterdam and AIAS University of Amsterdam) and the technical research center TNO (the Netherlands Organisation for Applied Research). Its core function is to promote and initiate social innovation in the fields of management, organization and labour.

My Company2.0 project within the European Regional Development Fund (ERDF) framework aims to enhance the innovative capacity of SMEs in the Utrecht region under the banner of social innovation. It is a joint initiative from Hogeschool Utrecht, TNO, Syntens (subsidised organisation to stimulate regional innovation) and the Taskforce Innovatie Regio Utrecht (subsidised organisation to stimulate innovation in the Utrecht region).

**United Kingdom:** the Workplace Innovation is founded as a sister organization to the United Kingdom Work Organisation Network (UKWON) Ltd in response to the EU social innovation agenda. Its aims are to engage the 'workforce through better job design, team working and decision-making, creating a culture of creativity, innovation and achievement' and to develop an assessment tool, OIL (Organising, Involving, Learning) designed to evaluate the extent to which organisational structures and practices facilitate workforce engagement and effectiveness.

It has set up a learning and benchmarking network of up to 20 organisations in partnership with ACAS (the Advisory, Conciliation and Arbitration Service).

The ACAS (the Advisory, Conciliatory and Arbitration Service) was founded in 1975 and is largely funded by the United Kingdom Department of Business Innovation and Skills. It encourages initiatives, innovation and people to work together.

Although several national projects to promote workplace innovation exist there seems to be no - or at least very limited - exchange of experiences on development of such projects and outcomes of the programmes (Alasoini, 2008). To evaluate and thereby improve the structure of workplace development programmes that aim to encourage workplace innovation Alasoini (2008) discusses three ideal types of projects in such a programme. These ideal types are (1) user-oriented projects, (2) method-based projects and (3) learning network projects. He therefore proposes a generic framework to enable a better understanding of factors critical for the social effectiveness of programmes and thereby a better planning and implementation of programmes. By applying the framework on the three types of projects he identifies **learning network projects** as a good way to find solutions to certain problems that may come up in the method-based and user-oriented projects. Alasoini states, that learning networks can be most favourably pursued in a relatively stable policy environment that enables a long-term accumulation of knowledge and expertise in a specific area of R&D. He also points out that learning networks might be a good way to share workplace innovation not only between firms or sectors but also between countries.

In another paper resulting from EU FP6 project WORK-IN-NET (<http://www.workinnet.org>) Alasoini (2009) pursues a similar approach by applying Naschold's (1994) 'best practice model of national and regional development strategies' on strategies aimed at the

promotion of workplace innovation. The examined national strategies are from Finland, Germany, Ireland, Norway, Singapore and Sweden. The examined regional strategies are from the Emilia-Romagna in Italy, Flanders in Belgium and North Rhine-Westphalia in Germany. Alasoini comes to the conclusion that the policy context of the compared **workplace development strategies vary** widely by country and that alternative patterns on how to integrate these strategies into the different types of policies exist.

### Barriers for policy measures stimulating social innovation

Considering the positive effects of workplace innovation the number of organizations adapting workplace innovation is still really low (see for example Oeij et al., 2012; Beblavý, Maselli, Martellucci, 2012). A reason for this might be that **workplace innovation tends to be disruptive**, risky, and potentially costly for individual firms, which makes it hard to promote workplace innovation (especially for smaller organizations) and the outcome might be too low to justify the high costs and risks (Bhaskaran, 2006).

Beblavý, Maselli and Martellucci (2012) identify four key issues that prevent workplace innovation from being adopted.

The first issue is the **uncertainty about the success** which makes it risky to invest in workplace innovation. The second issue is what Beblavý et al. call **'first mover cost'**. 'First mover costs' are the costs caused by being the first competitor in a country, region or sector that implements a certain aspect of workplace innovation (for example caused by regulatory and legal uncertainty, new informal norms and technological change).

The third issue identified is the **costs of transition to the workplace innovation** which apply not only for the 'first movers' but for all companies that implement a workplace innovation. These costs emerge for example from new equipment, disruption of work and productivity, and employee training costs. The fourth issue is a **lack of trust between employer and employee** that leads to risk aversion and resistance to change by the parties involved (e.g. because employees think that the workplace innovation might result in lower salary to compensate the costs or to an intensification of work instead of a productivity increase).

Furthermore **information on innovation can be both difficult and costly to gather and process**. This is particularly the case for small firms. The value of socialising the cost of information and learning about workplace innovation is evident in the role of learning networks.

**Table 7.3 Summary of policy measures and barriers related to the workplace sector**

Policy measures (PM)	Barriers (B)	Related EU Policy area (EUPA)
<p><b>PM</b> Educational campaigns</p> <p><b>PM</b> Promotion and dissemination of knowledge/information (e.g. training employees to promote food loss reduction)</p>	<p><b>B</b> Education can be a too soft approach to bring about behavior changes compared to the traditional legal mechanisms</p>	<p><b>EUPA3</b> Education and training</p>
<p><b>PM</b> Introduction of subsidies and other positive financial instruments (e.g. incentives to promote workplace innovation; to bring more skilled and innovative personnel into the companies)</p> <p><b>PM</b> Establishing government agencies for coordination of 'industry plans'</p> <p><b>PM</b> Ongoing monitoring and evaluation of companies</p> <p><b>PM</b> Sharing of best practices</p>	<p><b>B</b> Disruption risks and high costs for firms</p>	<p><b>EUPA9</b> Employment, social affairs and inclusion</p>
<p><b>PM</b> Promotion of dialogue between</p>	<p><b>B</b> Regulatory and legal</p>	<p><b>EUPA1</b> Policy coordination</p>

private and public organizations	<p>uncertainty, new informal norms and technological change.</p> <p><b>B</b> Lack of trust (between employer and employee and resistance to change)</p>	
<p><b>PM</b> Promotion of public and private investments in corporate innovation</p> <p><b>PM</b> Setting up of indicators for innovation outcomes</p> <p><b>PM</b> Fostering an entrepreneurial culture</p>	<p><b>B</b> Lack of trust</p> <p><b>B</b> Lack of financial support</p>	<b>EUPA2</b> Entrepreneurship and SME

## 7.4 Regional strategies

### Regional strategies

The term 'region' is widely used by policy makers. There is no simple definition of a region and the term is used differently in different national contexts.

The European Commission defines a region in its Reference Guide to European Regional Statistics (2004, p. 1) as 'a tract of land with more or less definitely marked boundaries, which often serves as an administrative unit below the level of the nation state'. Regions within (or even across) nations may be defined based on a number of characteristics, ranging from administrative areas to shared geographic, cultural or socio-economic features, such as their landscape, climate, language, ethnic origin or shared history.

Regions based on these features rarely coincide with the more precise boundaries that define public administrations. Ideally, administrative regions should be defined in a way that best captures how people relate to and understand regions, although this is often difficult to achieve.

By regional strategies we generally refer to the ways national governments intervene in the distribution of various activities between different regions. In basic terms, regional strategies are defined on the basis of problems which are crucial for regions like for example the depressiveness of territories, unemployment, poorness, and absence of stimulus to recover and involve the internal territorial potential, bad ecological situation.

The European Union has a system of classifying regions to facilitate common recording of data for regional units and to target policy interventions.

### The role of social innovation

Social innovation in regional strategies is quite an under-researched area. The studies about social innovations and how they influence regional development are limited and further research is needed (Christmann 2014).

Innovations can be seen as processes, where different actors – private citizens, the non-profit sector and the public sector – provide their input to create and develop ideas. Trust is essential as well as knowledge transfer, learning and having sufficient resources. Most of all social innovations are helping people and communities life. Innovations can act in the market but many times they can also improve the functioning of the systems and can contribute to savings (Rantanen M., 2015).

Social entrepreneurs can be considered as social and spatial pioneers and cultural change requires patience, persistence and time before taking place.

Since the sharing of skills and experience among various sectors, the lack of integration between spatial levels and the neglected needs of deprived groups are main issues, scientists have put forward development models and approaches. (Laville 1994, Favreau and Levesque 1999) like the Social Region model (Moulart and Sekia 2005).

Territorially speaking, this means that social innovation involves, among others, the transformation of social relations in space, the reproduction of place-bound and spatially exchanged identities and culture, and the establishment of place-based and scale-related governance structures. This also means that social innovation is either locally or regionally specific, or/and spatially negotiated between agents and institutions that have a strong territorial affiliation.

### Policy measures fostering social innovation

A vast assortment of policy measures fostering regional social innovation can be identified. Among them:

**Co-operation and networking:** these areas are among the main ones. Links between different actors like private citizens, organizations and municipalities (e.g. cities) can make social innovations possible. Actions toward participation and community inclusions can be supported e.g. via new digital inclusions.

In the past social interaction in the villages was characterized by intensive communication that does not exist anymore, inhabitants lament reduced communication as small shops and other services have gone.

Social entrepreneurs can develop innovative ideas for bottom-up processes of regional development and generate innovations. Due to networking and professionalism they can gain trust of others (Christmann 2014). They can support regional actors by enhancing:

- the links between private organizations and municipalities (e.g. cities);
- the collaboration between social organizations and employers organizations;
- action towards participation and community involvement;
- digital inclusions.

**Finance options:** some articles mentioned new financial opportunities (social enterprises, entrepreneurship and small loans) as innovations.

Social entrepreneurship is a behavioural phenomenon aiming at delivering social value through the exploitation of perceived opportunities (Weerawardena and Sullivan Mort, 2001), a set of innovative and effective activities that focus on resolving social market failures and creating new opportunities to add social value (Nichols, 2006). Christmann (2014) writes about initiatives helping not wealthy people to get small loans and counselling to start and maintain their ideas to try something new.

Jayawardhana's (2014) research conceptualizes the elements of market learning in social purpose organizations and their potential relationship with social innovations.

**Knowledge transfer and motivation:** social innovation does not emerge from scratches, it needs an initial groups of people joined in a network of aligned interests (Neumeier, 2012). Social innovations take place as a co-evolutionary learning process occurring in networks (Leeuwis and van den Ban, 2004) like pilots and demonstrations, learning, community consultation and collective planning.

To provide a Finnish example: the project Shared Meal (Yhteinen pöytä) is a joint project of the City of Vantaa, Parish Union of Vantaa and Diaconia University of Applied Sciences to coordinate food surplus from grocery stores in Vantaa by building a joint logistics center. The main goals of the project model are to better involve the recipients of food aid, to improve ability to work and to reduce loneliness by sharing meals and by all means of citizen activity. The network also includes small NGOs from Vantaa which deliver food aid bags.

**Education:** training and skills improvements are necessary elements in the context of regional strategy and development. Training can lead to interaction into the labour market, but also to more active participation in consultation and decision making processes (Moulaert 2009).

An example is Foodcycle, a national UK charity that combines volunteers, surplus food and spare kitchen spaces to create meals for people at risk of food poverty and social isolation. FoodCycle collects the surplus food that could not be sold from local retail outlets and cooks these ingredients into healthy meals. By offering communal dining experiences and involving local volunteers, it works to address social isolation and promote community cohesion. They offer free hospitality training 6 weeks programme for young people (16-25) the opportunity to gain real work experience and training in a busy commercial café serving the local East-end community.

### Examples and good practices

A good example of policy measures is the **LEADER Approach** ("Liaison Entre Actions de Développement de l'Économie Rurale", meaning "Links between the rural economy and development actions")<sup>8</sup>.

The importance of the LEADER method in the context of a local development strategy has been recognised all over Europe, and there are plenty of examples under the LEADER approach that show how local development strategies can be developed.

LEADER has always viewed local people as the main asset of rural areas, and the distinctive characteristic of LEADER projects was the reliance placed on the people who live in rural

---

<sup>8</sup> The European Network for Rural Development: <https://enrd.ec.europa.eu/en/leader> (Accessed online, August 13th, 2015).

areas, and on their ability to discover what best suit their environment, culture, working traditions and skills.

There is a wealth of experience in the Local Action Groups (LAGs) of the old Member States, many of which date back to the first three LEADER initiatives. Networking structures should bring people together to exchange experience and knowledge, inform and promote rural development actions, find project partners and make people feel stronger because they are part of a larger unit.

According to Rantanen (Rantanen M. (2015), the **LEADER approach** has managed to channel both economic and other resources for local initiatives.

Ratanen affirms that the measures that have truly succeeded are those which **combine new types of co-operation with new knowledge, financial resources and local initiatives**. When frustration caused by inflexible policies of subsidies has been prevented and new ideas have been supported, the best results can be achieved. Therefore the **promotion of community engagement in the decision-making process**, alongside the promotion of dialogue among private organizations and municipalities, are of utmost importance.

According to Heiniemi-Pulkkinen (Heiniemi-Pulkkinen K. (2015), **platforms and other possibilities for showing, testing and piloting social innovations** are required.

Other good examples of policy measures are **financial means, micro loans and counselling** that could support the raise and spread of social innovation.

### Barriers for policy measures stimulating social innovation

Relevant barriers to policy measures stimulating social innovation in the regional strategies sector include:

- **The organizational and societal local culture** which can be a barrier affecting the whole society (or at least a large share of the social innovators and potential beneficiaries).
- **The lack of measurement instruments**. Politicians and investors often want to make sure that new initiatives provide value for money. Thus, if social innovators cannot demonstrate the value of the social innovations, the innovations will not be scaled or even initiated in the first place. As a consequence, the lack of measurement instruments turns into a barrier – a barrier that cannot be changed through a formal decision but still affects the society as a whole.
- **The lack of trust**. If there is no trust amongst citizens or between citizens and the government, social innovations based on co-creation can face hard odds. Individual motives and hidden agendas are generally hard to address through top-down decision making, since they often relate to the personalities and mind-sets of the individuals carrying out social innovations.
- **The lack of competences**. The profile of the typical social entrepreneur is a person passionate about a social cause but often with limited business competences to ensure the development of the process from idea to prototype, through scaling and systemic change. Policy makers can make sure that relevant education for social innovators is available, but it is up to the individual to acquire the skills.

There is a need to learn from other sources that possess knowledge valuable to the business so to shift the boundaries of learning needed to enhance value creation.

- **The lack of finance** could be another major barrier.

Furthermore, according to Heiniemi-Pulkkinen (Heiniemi-Pulkkinen K. (2015) the most common barrier in applying any innovation is the **'not invented here' attitude** that hinders the replicability of successful social innovation initiatives in contexts different from the one where they originated.

**Table 7.4 Summary of policy measures and barriers in the regional strategies sector**

Policy measures (PM)	Barriers (B)	Related EU Policy area (EUPA)
PM Promotion of dialogue between private organizations and municipalities	B The organizational and societal local culture B Lack of measurement	EUPA1 Policy coordination

<p><b>PM</b> Promotion of community engagement in the decision-making process (promotion of public dialogue)</p>	<p>instruments for social innovation</p> <p><b>B</b> Lack of trust amongst citizens or between citizens and the government</p>	
<p><b>PM</b> Introduction of subsidies and other positive financial instruments (e.g promotion of microcredit and counselling to start and maintain new social enterprises)</p> <p><b>PM</b> Promotion of projects and coordination activities at national and European Level (e.g. programmes supporting local development and job creation like LEADER)</p>	<p><b>B</b> Lack of financial support</p>	<p><b>EUPA6</b> Access to finance</p>
<p><b>PM</b> Promotion and dissemination of knowledge/information</p>	<p><b>B</b> The 'not invented here' attitude can obstacolate the replicability of social innovation initiatives</p>	<p><b>EUPA3</b> Education and training</p>
<p><b>PM</b> Promotion of ICT access, use and skills</p>	<p><b>B</b> Lack of financial support</p>	<p><b>EUPA4</b> Communication networks and technology</p>

## 7.5 Social economy

### **Social economy and social entrepreneurship**

The term social economy designates the universe of practices and forms of mobilising economic resources - for the satisfaction of human needs - that belong neither to for-profit enterprises, nor to the institutions of the state in the narrow sense (Moulaert and Ailenei, 2005). According to Social Economy Europe - which is a EU-level organisation - social economy is founded on the principles of solidarity and collective involvement in a process of active citizenship. It generates high quality jobs and a better quality of life, and offers a framework suited to new forms of enterprise, work and responsible consumption by involving organizations such as cooperatives, non-profit organizations, charities, mutual benefit groups, foundations, and non-governmental organizations.

Social enterprises are also a critical part of the social innovation ecosystem. The Organisation for Economic Co-operation and Development (OECD), 2013, defines social enterprises as "any private activity conducted in the public interest, organised with an entrepreneurial strategy, but whose main purpose is not the maximization of profit but the attainment of certain economic and social goals, and which has the capacity of bringing innovative solutions to the problems of social exclusion and unemployment (OECD, 2013)." Social enterprises can be newly created start-ups, or entities created by the transformation of pre-existing private organisations or government organisations. Their creation requires many resources and capabilities. A social enterprise can encounter several barriers which can relate to legal and regulatory frameworks, financial resources, business support, development structures and training.

### **The role of social innovation**

In the literature search on social economy linked with social innovation we have noticed that most of the literature is related to collective services, urban development studies and policies. This is due to the fact that although social economy is present in all fields, Bouchard (2012) states that it is mainly active in the area of collective services. Over the last 40 years, innovations have been brought forth by the social economy at the organizational level, by involving the consumers and the producers in the "coproduction"<sup>9</sup> of services, or by involving the community, thus reducing the dependency from the State and from donors. As a result of inter-organizational relations networks have been created which link together social economy organizations and public institutions in public-private partnerships. A closer relationship between social economy actors and government has resulted into their participation in the "co-construction" of public policies, linking fields that are separated in public policies (e.g. housing and health) and favouring new forms of intervention (such as mixing social and economic objectives) (Bouchard 2012).

For the past two decades, the social innovations that have led to advances in public practices and policy in social housing have often been the outcome of close co-operation between social economy and public sector stakeholders (Vaillancourt, 2009; Bouchard, 2012). According to Vaillancourt, 2009, the presence of social economy in social housing contributes to a triple democratization: of practices, of policy development (co-construction) and of operationalization of new policy (co-production).

Since actors in social economy are economic and social players (associations, cooperatives) active in all sectors of society to respond to people's needs, they are characterized by a different way of doing business which is driven by the general interest or by a social objective rather than by economic performance and which embodies the principles of

---

<sup>9</sup> Coproduction of services can be defined as the public sector and citizens making better use of each other's assets and resources to achieve better outcomes and improved efficiency.

solidarity and social justice, with a strong element of participation. Social enterprises include some social economy organisations that have a primary social objective, reinvest profits to achieve social objectives, and are run in a democratic, transparent and participatory way (based on definition of the European Social Platform). Thus we can conclude that social entrepreneurship is the main component of social economy.

### **Policy areas fostering social innovation**

The European policy framework has supported the development of social enterprises in the past few years.

In 2011, the European Commission adopted the Social Business Initiative (SBI), one of the most comprehensive EU policy initiatives to date aimed at fostering the development of social enterprises (EC, 2013). The SBI contains measures to improve the visibility and recognition of social enterprises, to simplify the regulatory environment so that social enterprises can reach beyond national borders more easily, and to improve social enterprises' access to funding. Moreover the SBI recognises that social entrepreneurs are innovators and drivers of social change.

Other existing examples of policy used to support entrepreneurs at the EU level such as Enspire EU or Young Entrepreneurs are both in the framework of the European Regional Development Funding. Charu Wilkinson et al (2014) claim that European Structural Funds (ERDF and ESF) have also played a key role in many countries (particularly in new Member States such as Bulgaria, Poland, Romania, Hungary, but also in older Member States such as Italy and the UK) in raising the visibility and profile of social enterprises through awareness raising activities such as events, workshops, awards/ competitions and by pulling together a fragmented community of actors also contributed to financing the creation of new social enterprises.

Efforts are also made at the national and local level to promote policies which support social innovation and social entrepreneurship. Charu Wilkinson et al (2014) mapped for the European Commission the social enterprises in Europe and conceptualised the enabling eco-system for social enterprises including the potential to address key constraints and obstacles as follows:

**Legal framework:** most of the EU Member states have some forms of legislation that recognise and regulate social enterprise activity. Some have adapted the existing legislation by taking into account the specificities of social enterprises and others have created a special legal status.

**Social impact investment markets:** given that most of the start-ups struggle with funding, this type of policy tool allows for investment in organisations with the explicit expectation of a social (and financial) return.

**Impact measurement and reporting systems:** only few Member states have implemented reporting schemes imposing on social enterprises to measure their socio-economic outcomes. Mandatory legislation exists only in Belgium and Italy. The UK, Austria, Estonia, Germany and Portugal have voluntary reporting systems.

**Networks and mutual support mechanisms:** Several EU countries have put in place support mechanisms for social entrepreneurship and social economy as a whole (e.g social cooperatives consortia in Italy, business and employment cooperatives in France, incubators, mentoring schemes etc.)

**Specialist business development services and support:** business support schemes specifically designed for social entrepreneurs and social economy entities were mapped in most EU countries. There are also a number of European countries that have very limited or no publically funded schemes designed for social enterprises. This is particularly the case for recent Member States which have received support from European Structural Funds instead. Finland and the Netherlands have deliberately chosen not to develop targeted schemes for social enterprises.

According to Bogaardt (Bogaardt R-J. (2015) social innovation requires governance (or policy) with the following characteristics: network governance, providing space (instead of control), dealing with uncertainty (instead of certainty), facilitating, measuring (monitoring)

based on development (instead of fear and distrust). The required/preferred tasks of government are to give direction i.e. define clear and ambitious frameworks, act according to clear rules and principles and to provide space for innovation i.e. by providing legal and organizational space, removing obstacles, stimulating unthinkable coalition, facilitating others to organise it themselves.

According to Moulaert (Rantanen M., 2015) social innovations work at best when they are either completely independent from the State (e.g. cooperatives, community driven NGOs) or when they operate within a socio-political environment that is “kind”. ‘Kind’ means that there is a workable match between social dynamics and political developments, where social innovation as a result of social dynamics receives support from State/policy makers/local governments. In such a climate social innovation initiatives (launched by individuals, groups, communities) are supported by State regulation and policy.

### **Examples and good practices**

**Fostering social economy and entrepreneurship via education.** Boosting positive attitudes towards social innovation through entrepreneurship can be done by attracting young and emerging talents in schools, colleges and universities.

Examples of such collaborations in France are the Jeun’ESS (OECD, 2013) initiative which is a coalition of ministries, six enterprises and foundations from the social economy sector whose aim is to promote social economy amongst the youth, and the Chaire Entrepreneurs founded by the ESCP Europe, a mix of A-level student programmes with local & global events, start-up acceleration and transdisciplinary research.

In the UK, the School For Social Entrepreneurs offers practical classes to entrepreneurs and designed workshops to assist students in developing their social enterprises.

**Additionally, the promotion of social entrepreneurship can also be done at local or regional levels.** For instance, the Provence-Alpes-Côte d’Azur region in France has witnessed the implementation of a policy that recognises the key role that social innovation can have in the economic development of the region. For instance, the PROGRESS Programme which forms part of this policy, is specifically directed towards social economy development. This programme has been designed to assist the PACA region in setting up a network of “local promoters” whose tasks would primarily consist of assisting the conception of small project ideas, and supporting them throughout.

Oliveira and I. Breda-vázquez, 2012, have described the cases of social economy related to SI by linking socially innovative initiatives in the education sector in Portugal.

EPIS — Empresários Pela Inclusão Social (Employers For Social Inclusion) — is a non-profit association created in 2006 with the object of combating school failure and abandonment. Although it is a civil society initiative, several public authorities, including the President of Portugal, the Education Ministry and local authorities across the country, support it.

Porto de Futuro<sup>10</sup> the other innovative educational programme in the area, was initiated by the City of Oporto local authority (though in partnership with the national government). It aims to transfer good practice from the entrepreneurial world to schools, reduce early school leaving and school failure, and promote a culture of merit and entrepreneurship.

**Policy measures to build legal, regulatory and fiscal frameworks** - if properly adapted to the organisational form of social enterprise - can successfully allow social enterprises to meet their social and economic goals. The present fiscal agenda in the UK regarding this matter can be taken as an example supporting a social enterprise development. Although the Community Investment Tax Relief (CITR)<sup>11</sup> had initially been developed to encourage investment within disadvantaged communities by providing tax relief to investors, it has often been adapted to social investment (OECD, 2013). In fact, under the CITR scheme, tax relief can be made available to any potential entrepreneur and can be spread over 5 years (GOV UK, 2015).

The OECD (2013) claims that the key in dealing with legal, regulatory and fiscal frameworks is to ensure that social enterprises, as well as their objectives, have been clearly defined. As such, it makes it easier to use tools- legal, regulatory, or fiscal- to

---

<sup>10</sup> Porto de Futuro: <http://www.cisporto.pt/> (Accessed online, August 13th, 2015).

<sup>11</sup> Community Investment Tax Relief (CITR), 2012, GOV.UK, December.

address the specific issues that the social enterprise is concerned with; these can range from tax treatment, market access and/or access to public transport. According to Charu Wilkinson et al. (2014) sixteen European countries have some form of legislation that recognises and regulates social enterprise activity. Additionally, specific social enterprise marks or certification schemes can be found in four countries (Finland, Germany, Poland and the UK) to provide visibility and a distinct identity to social enterprises.

**Policy measures providing sustainable finance to assist social enterprises from start-up to scale.** Social enterprises typically adopt a 'hybrid' business model i.e. they derive their revenues from a combination of:

- Market sources e.g. the sale of goods and services to the public or private sector;
- non-market sources e.g. government subsidies and grants, private donations, non-monetary (Charu Wilkinson et al , 2014);
- other finance instruments are worth mentioning such as: solidarity finance, institutional investment, individual investment and crowdfunding.

There are several case studies that provide proof to the effectiveness of policies that have been put into place to support up-and-coming enterprises.

For example, the Big Society Capital (BSC)<sup>12</sup> in the UK has become a keystone in the foundation of a UK market for social enterprise and innovation. BSC's main objective is to invest in financial intermediaries who in turn provide funding to organisations that support frontline social sector entities. BSC is referred to as a "social investment wholesaler" and receives funding primarily from two sources:

Poland is another example of how policies can be of assistance to emerging social entrepreneurs in raising sustainable finance. EU funds have played an important role in the development of Polish social enterprises. Indeed, the adoption of the European Social Funds Programme (ESF)<sup>13</sup> has been a turning point in social inclusion through social innovation. Supported by the ESF, the Human Capital Operational Programme has also been of particular assistance to Polish entrepreneurs through the provision of specific grants for socially innovative start-ups (OECD, 2013).

The presence of government schemes to support social entrepreneurship in Belgium ensures that social innovation is a success in all three regions. In Wallonia, for instance, a budget of EUR 11 million has been specifically tailored for the allocation of grants and assistance to emerging entrepreneurs, including social entrepreneurs. In Brussels a system whereby any businesses or NGOs willing to incorporate a specific category of potential disadvantaged employees can apply for funding for social enterprises. The capital also boasts Brusoc<sup>14</sup>, which is subordinate to the Brussels Regional Investment Agency<sup>15</sup> known for providing special funding and support to socially innovative investments. By providing cheap loans or initial capital to start a business which can effectively pitch a socially innovative entrepreneurial idea, Brusoc is an important element of support to emerging social entrepreneurs.

**Policy measures fostering business development (other policy measures):** social enterprises are often offered business support through different types of structures such as incubators, university research programmes or other types of organisations encouraging their start-up and development. As per the writings of Charu Wilkinson et al (2014), a number of countries have initiated a broad variety of business development services and support schemes specifically designed for social enterprises and social economy entities more widely. These include Belgium, Croatia, Denmark, Germany, France, Italy, Luxembourg, Poland, Portugal, Slovenia, Spain, Sweden, Switzerland and the UK.

For example, the NESst (OCED, 2013) incubators, have been supporting social enterprises since 1997 in ten countries around the world, including some EU Member states such as Croatia, Czech Republic, Hungary, Romania and Slovakia. They provide financial support,

---

<sup>12</sup> Big Society Capital: <http://www.bigsocietycapital.com/> (Accessed online, August 13th, 2015).

<sup>13</sup> European Social Fund "Commission adopts the ESF operational programme for Mazowieckie in Poland" <http://ec.europa.eu/esf/main.jsp?catId=67&langId=en&newsId=8570> (Accessed online, August 10th, 2015).

<sup>14</sup> Brusoc: <http://www.srib.be/fr/filiales/brusoc> (Accessed online, August 10th, 2015).

<sup>15</sup> Brussels Regional Investment Company (B.R.I.C.): <http://be.brussels/about-the-region/regional-bodies/brussels-regional-development-agency> (Accessed online, August 10th, 2015).

alongside training and mentoring services, for social enterprises at pre-start-up and start-up stages, as well as on-going support, including scaling-up.

Other examples of specific business support and development support structures which can be established are hubs or “communities”. Spain has established a Social Innovation Park in Bilbao managed by the Basque Centre for Social and Corporate Innovation which hosts a ‘Social Innovation Laboratory’ supporting the creation of new social enterprises and offering incubator services such as training, mentoring etc.

Moreover organisations such as UnLtd<sup>16</sup> and Makesense<sup>17</sup> provide resources to community entrepreneurs to start-up, support those with more established ventures to scale up and offer access to the largest networks of social entrepreneurs in the world. Makesense has recently launched SenseCube<sup>18</sup>, an accelerator program which supports innovative entrepreneurs, using digital technologies to mobilize strong communities and solve social and environmental issues and SenseSchool<sup>19</sup>, a programme specially designed to connect young graduates with universities, experts and public institutions offering support to social entrepreneurs. Finally, social entrepreneurs’ networks such as the Food Surplus Entrepreneurs Network are very helpful in facilitating exchange and collaboration between entrepreneurs working towards achieving the same social or environmental goals.

### **Barriers for policy measures stimulating social innovation**

Notwithstanding the above policy measures supporting social economy and social entrepreneurship, according to Charu Wilkinson et al (2014) and to OECD (2013) social enterprises face many barriers in the different EU Member states. Some of these barriers are illustrated below.

**Uncertainty around the definition of “social economy” and “social enterprise”:** in some countries, the public associates social enterprises with the activities of charities or work integration and not with entrepreneurship.

**Lack of business development and support:** social enterprises have specific features which create complex needs demanding tailored solutions. Although incubators and other forms of support mechanisms are booming in some countries, specialist support for social enterprises is largely absent in others.

**Lack of supportive legislative framework:** the lack of a legal status of social enterprise in some countries makes it difficult for authorities to target tailored support for social entrepreneurs (such as fiscal incentives for example). Appropriate legal frameworks at the national and European level will bring more clarity of the definition of social enterprises, their missions and activities.

**Lack of access to markets:** social enterprises do not always benefit from measures applicable to SMEs and they might struggle to compete on the market. Limited managerial capacity could also hinder access to the market.

**Lack of access to finance:** social economy entities often find it difficult to access finance from external sources. They are typically financed by a combination of market resources (e.g. the sale of good and services), non-market resources (e.g. subsidies and private donations), and non-monetary resources (e.g. volunteer work). However financial instruments supporting the development of social enterprises are either non-existent or under-developed in most countries of the EU. According to OECD (2013) traditional financial institutions generally refuse to lend to social enterprises because they do not meet their established client criteria and are not seen as offering sufficient guarantees.

**Absence of common mechanisms for measuring and demonstrating impact:** common social impact measurement could ensure more accountability, transparency and could potentially attract more investors in the social economy sector. The legislative framework could include provisions of mandatory reporting of social impact.

---

<sup>16</sup> Interview with Maria Ana Neves, Founder of Plan Zheroes <https://www.planzheroes.org/#/> (Accessed online, August 10th, 2015).

<sup>17</sup> Interview with Joris Depouillon, Founder of Food Surplus Entrepreneurs Network <http://fsenetwork.org/about/> (Accessed online, August 10th, 2015).

<sup>18</sup> Interview with Joris Depouillon, Founder of Food Surplus Entrepreneurs Network.

<sup>19</sup> Interview with Joris Depouillon, Founder of Food Surplus Entrepreneurs Network.

According to Bogardt (2012) other barriers include the lack of governmental subsidy for energy and the lack of adequate insurance policy for small business people.

**Table 7.5 Summary of policy measures and barriers related to the social economy sector**

<b>Policy measures (PM)</b>	<b>Barriers (B)</b>	<b>Related EU Policy area (EUPA)</b>
<p><b>PM</b> Promotion of projects and coordination activities at national and European Level (e.g launch of <i>EU</i> initiatives like the Social Business Initiative, European Network of social entrepreneurs; development of <i>national</i> schemes)</p> <p><b>PM</b> Promotion of inter-sectoral and intra-sectoral private-private partnerships (e.g setting up a network of “<i>local</i> promoters” to assist the conception of project ideas)</p> <p><b>PM</b> Promotion of incubators, university research programmes or other types of organisations encouraging start-ups</p>	<p><b>B</b> Lack of business development and support</p> <p><b>B</b> Lack of financial support</p>	<b>EUPA2</b> Entrepreneurship and SME
<p><b>PM</b> Promotion of public and private investments</p> <p><b>PM</b> Introduction of subsidies and other positive financial instruments (e.g. tax relief to encourage investments within disadvantaged communities; incentives for the establishment of social cooperatives consortia, business and employment cooperatives, incubators, mentoring schemes; funding schemes designed for social enterprises)</p>	<p><b>B</b> Lack of financial support for social entrepreneurs</p> <p><b>B</b> Limited managerial capacity</p> <p><b>B</b> Lack of supportive and enabling legislative framework</p>	<p><b>EUPA6</b> Access to finance</p> <p><b>EUPA2</b> Entrepreneurship and SME</p>
<b>PM</b> Sharing of best practices	<b>B</b> Any discussion on ‘best practices’ is made difficult by their context- dependent and system-dependent nature	<b>EUPA1</b> Policy coordination
<b>PM</b> Promotion and dissemination of knowledge/information	Lack of supportive and enabling legislative framework	<b>EUPA3</b> Education and training

## 7.6 Lessons and opportunities to stimulate social innovation initiatives addressing food waste

Promoting social innovation within European Member States and more specifically inside different policies, entails combining skills/backgrounds, cultures/business and public services to offer innovative responses. In the current context of crisis and budgetary constraints, one possible way of progress does not consist in reducing the role of policies but in enhancing them and ensuring that they are effective and efficient.

Supportive policies and adequate governance can in fact create the natural environment for social innovation to flourish. The EU and national governments are working to set up enabling processes and institutions to encourage the creation of ecosystems which mobilise collective energy and initiatives to develop, mostly small-scale but effective solutions to support the spread of social innovation.

As the present report shows, policy interventions mentioned and utilized in the selected sectors – environment, health, workplace, regional strategies, social economy/social entrepreneurship- to stimulate social innovation initiatives present a number of commonalities and share similar barriers in their implementation.

Some of the policy measures identified could successfully be applied – at different segments of the food supply chain – in the field of food waste reduction and prevention. They include:

- **Sharing of best practices:** adopted in the environmental, workplace and in the social economy sectors, they could be applied with regards to food waste prevention and reduction with specific reference to all the stakeholders involved in the food supply chain. Such policy option might be affected by barriers as lack of financial support or lack of dialogue and trust among food chain stakeholders.
- **Promoting ICT access, use and skills:** adopted in the environmental, health and regional strategies sectors, it could be applied with regards to food waste prevention and reduction with specific references to labeling (e.g. introduction of QR codes, containing information about the product), smart technologies (e.g smart fridges for consumers, intelligent systems for retailers and catering services to monitor food waste), communication platforms and websites. Such policy option might be affected by barriers as lack of financial support and resistance to change and innovation.
- **Extending the corporate social responsibility (CSR) to social innovation:** adopted in the environmental sector, it could be applied with regards to food waste prevention and reduction with specific reference to retailers and food enterprises in general. Incorporating CSR can be very beneficial for corporations and organizations. Among others, they can enhance their brand image and reputation, ameliorate consumers' trust in their business in times of crises damaging consumer confidence, their financial performance improves as does their sales, access to capital gets easier, risk management becomes more efficient, costs can be saved due to improved energy efficiency and the potential for innovation increases. Such policy option might be affected by barriers as lack of measurement instruments for social innovation.
- **Promoting community engagement in the decision-making process (promotion of public dialogue):** adopted in the environmental and regional strategies sectors, it could be applied with regards to food waste prevention and reduction with specific reference to household food waste production and behavioural changes. Such policy option might be affected by barriers as lack of collective identity, independence and capacity in order to form alliances.
- **Creating new business models for collaboration between regular and social economy (based on the principles of solidarity and mutuality):** adopted in the environmental sector, it could be applied with regards to food waste prevention and reduction with specific reference to food donations and collaborations among Governments, food supply chain & consumer organizations. Such policy option might

be affected by barriers as lack of dialogue between policymakers and social innovators.

- **Developing public procurement guidelines:** adopted in the environmental sector, they could be applied with regards to food waste prevention and reduction with specific reference to public catering services. Through its procurement strategies the public sector has the power to set environmental, economic and socio-cultural trends that can convince others to follow suit. Research shows that procurement practices can facilitate the implementation of specific sustainable development policy targets. Such policy option might be affected by barriers as lack of supportive and enabling legislative framework.
- **Enhancing public and private investments in corporate innovation:** adopted in the regional strategies sector, they could be applied with regards to food waste prevention and reduction with specific reference to food businesses. Looking at the chain between farm and fork, most wastage occurs within and between food and agri-business companies during agricultural production, post-harvest handling and storage, processing and distribution. For almost every type of food, producers account for more than half the loss of value. These companies can save billions of euros by using new, innovative approaches to reducing food waste. Such policy option might be affected by barriers as lack of financial support and lack of trust among food chain stakeholders.
- **Setting up indicators for innovation outcomes** for all the stakeholders involved in the fight against food waste, from field to fork. Such policy option might be affected by barriers as lack of financial support and lack of trust among food chain stakeholders.

Constraints on public expenditure have challenged states' capacity to respond to and address problems like food waste reduction and prevention. Within this context, social innovation has regularly been cited as a means to do and achieve more with less.

During his presidency of the European Commission José Manuel Barroso stated that 'the financial and economic crisis makes creativity and innovation in general, and social innovation in particular, even more important... at all levels for the benefit of the citizens and societies'. Rising interest in social innovation in different sectors reflects a recognition that old or institutionalised policy responses inadequately address the distinct but integral domestic shifts and challenges facing EU member states.

# 8 Policy measures stimulating social innovation addressing food waste prevention and reduction

## **The relationship between social innovation and food waste**

Given the complexity around food waste, no single-tiered solution is supposed to work and all possible interventions are needed in order to make a positive contribution to improving global food use. Social innovation is part of the mix of interventions needed to reduce food waste, such as political, technical and economic solutions. The aspect of social innovation that blends past elements with new innovations and uses extended networks to support and manage relationships can make a difference in the fight against food waste. It complements other mechanisms that target the development and introduction of new technology, undertake research to build the evidence base or raise awareness and the motivation to act through communications activities.

The European Commission is increasingly promoting good practices that combine social innovation with food waste reduction initiatives to share with European and national stakeholders. Supportive policies, adequate governance, innovative finance, a variety of capacity building and recognition tools such as incubators, hubs, forums, prizes and research in methodologies, benchmarking and impact measurement are the main components which, together, create the 'natural environment' for social innovation to flourish.

For example, there is a growing global movement of social innovators who take practical action to reduce food waste. They generate new ideas and methods that are effective, easy to replicate and business tested – and they have gained global recognition for the significant role they play in reducing food waste.

The event "Food Waste Collab – Social Innovation meets Food Waste" organized on the 27th of May 2015 in Paris by the Food Surplus Entrepreneurs Network and EU FUSIONS brought together social innovators who tackle food waste from across Europe. Food Waste Collab offered to social innovators a platform to broadcast their innovations to policy makers, industry and researchers.

Also large food retailers are trying to identify solutions to increase awareness about food waste, to reduce the rate of hunger experienced by low-income people, as well as the logistic cost of waste disposal. Given that a significant number of consumers live on the margins of food insecurity, the optimisation of food waste practices could have an immediate impact on their livelihoods. For poor consumers (food insecure or at-risk households), the priority is clearly to have access to food products that are nutritious, safe and affordable (Stuart 2009; Gustavsson et al. 2011). Some large retailers are promoting initiatives on prevention of food waste by also donating food for human aid purposes, but managing unsellable food at the store level is very difficult (Stenmarck et al. 2011). The hygiene requirements are very strict and many retail shops do not dare to donate food for food aid purposes.

## **Policy measures fostering social innovation**

Policies specifically designed for reducing food waste along the whole food supply chain through the application of social innovation include a wide range of strategies, plans and programmes. Among them:

**Redistribution of food surplus:** with regards to business-level food donation, key is the often discussed change to regulation that would allow those businesses donating food to be exempt from paying VAT on any donated food. Determining the current landscape of rules across Member States would be a useful first step to harmonise the practice.

The current scope of business-donation activities, largely organised and driven by the non-profit sector, or even by private individuals in the case of 'Foodwe.org', indicates that other market-based or suasive approaches may support continued work to make more food surplus available for human consumption. Funding is needed to establish and run the technology behind platforms that provide a 'matching' service and they need to be well communicated in order to be used and therefore sustained.

**Education Programmes:** developing educational programmes is potentially a key area where new policy could raise awareness on food waste and instil values of social innovation creation and participation among young people. Exploring ways of bringing social innovation initiatives into the learning process, and particularly connecting educational delivery to existing social innovation projects in the local community are pivotal priorities. (One of the FUSIONS feasibility studies – Cr-Eat-ive Schools in Greece – is working to engage young children and their families in food waste prevention).

New educational activities that combine food waste prevention and social innovation could be brought into school curricula both at primary and secondary level.

On another level, there is the ongoing need to educate businesses both to help them identify actions for waste reduction in their own operations, but also to break down sectoral and disciplinary boundaries to enable sharing of good practices and organisational learning. Providing funding to support the creation and dissemination of adult and business-focused education is a key policy area for further exploration.

**Partnerships and agreements:** the extent to which formal alliance structures can support food waste reduction, and therefore what policy structures are needed to underpin them, is an important area. Food waste is a "cross-silo" domain, both in terms of its goals, its primary aspects (environmental, social, food safety and hygiene, financial, legal etc.) and its stakeholders (agro-food, public, research and education, non-profit sectors and consumers). Partnerships among different players are therefore key.

Food waste oriented alliances could play an important role in driving social innovation.

A deeper analysis of the existing initiatives – in terms of goals, participants, activities and results - may help determine their key success factors and provide best practices, key indicators and criteria, both for enhancing them and for enabling the more efficient creation of new ones.. This could be overlaid with a review of how they are currently supporting social innovation, and of the barriers and opportunities they face. Such work may align closely with inserting more social innovation approaches into CSR and public procurement activities.

**EU policy might encourage voluntary collaboration to build on the contribution of an individual company CSR by:** helping companies share good practice, building bridges between large companies and small organisations, making the potential contribution of social innovation more visible through system-wide measurement, and promoting system wide collaboration and change, for example, by promoting social innovation as a delivery mechanism at all stages of the food chain.

**Doing something disruptive and sustainable:** whilst a disruptive intervention may grab the headlines, its acceptance and use, underpinned by a new way of doing things, is what will enable it to be sustained and deliver the change it set out to achieve. To illustrate this point, the retailer trials of new promotional mechanics in the UK and the Netherlands are good examples (FUSIONS 2014, *Stimulating social innovation through policy measures*). In effect 'Buy one get one free' became 'Buy one get one free next time' or similar. The assumption was that people may buy more than they can use in order to get the value from the offer. By making half the quantity available at a later date, the risk that any excess would be thrown away would be reduced.

There are several other examples of disruptive changes listed on the inventory.

In Italy, a new store that merchandises its products via bulk dispensers rather than pre-packed has been opened. It allows customers to take exactly what they need, potentially

limiting waste, but relies on an acceptance of the new dispenser system and customers' advanced preparation to take suitable containers to the store.

In the UK, the People's Kitchen within the People's Supermarket creates nutritious ready meals for customers to buy and eat at home from all the products that are approaching their expiry date that are sold in-store.

A different approach was trialled in Finland. Saa Syödä established a food exchange system within a block of flats to help people share their food surplus instead of discarding it. The project requires a new way of interacting with the local community, local organisations and food.

These examples illustrate the need for social innovation to play a role in implementing any technical or behavioural innovations. Policy may be useful in establishing supportive foundations for behaviour change.

Setting the agenda through clear ambitions around food waste prevention helps to justify investment and effort in piloting disruptive approaches. But their success relies on their effective execution and mechanisms to bring people with them, through stimulating a social innovation around the idea.

*The role of local authorities:* an important role can be played also by local authorities that could stimulate social innovation initiatives by facilitating for example the organization of events encouraging volunteers or providing venues for events, equipment for cooking, transport for surplus food and volunteers.

### Examples and good practices

Due to the nature and the characteristics of social innovation (it represents co-creation and learning; it is people-focused, both in terms of its delivery and its beneficiaries; it is deeply affected by and it affects social interactions) stakeholders' consultations represent a natural setting that through the engagement of sectoral experts and social innovators can lead to the identification of policy options potentially stimulating social innovation initiatives.

In this sense FUSIONS' Regional Platform Meetings (RPMs) and European Platform Meetings (EPMs) are specifically aimed to facilitate the discussion between the key stakeholders of the food chain, to build consensus and to develop recommendations on monitoring practice and socially innovative measures for food waste prevention and reduction.

**Table 8.1 Stakeholders' participation to FUSIONS' RPMs and EPMs**

Food supply chain segments	Number of stakeholders	Countries of origin of the stakeholders
Food retailers	13	UK, Turkey, The Netherlands, Sweden, Italy, Denmark, Greece, Hungary.
Consumer groups, social organisations, charity organisations & NGOs	33	UK, The Netherlands, Poland, Germany, Sweden Finland, Italy, Hungary, France, Russia, Estonia, Switzerland, Spain, Ireland, Greece, Cech Republic, Belgium.
Food service/Hospitality sector	6	Italy, UK, Hungary, Greece, Thailand, the Netherlands, Belgium.
Governments, Policy makers, Food safety authorities & Regulators	24	Greece, Italy, Sweden, the Netherlands, Belgium, UK, Ireland, Hungary, Finland.
Food producers/manufacturers	8	Denmark, UK, the Netherlands, Finland, Greece, Sweden.
Waste Management	14	Belgium, Austria, Sweden, Portugal, Finland, Germany, the Netherlands, Spain, Greece, Italy.
Other industry: Agriculture, food packaging, ICT, supplier companies, etc.	26	Italy, Finland, Sweden, Belgium, UK, Switzerland, Portugal, the Netherlands, India, USA, France.
Universities & knowledge institutes	27	Greece, UK, Germany, Sweden, the Netherlands, Denmark, Finland, Norway, Switzerland, Italy, Hong Kong, Spain.

Source: authors' elaboration

As an outcome of the consultation sessions, a number of policy measures emerged from the various EPMs and RPMs (see the Methodology section for more details). They are reported and illustrated below according to the following typologies of policy measures: national strategies on food waste prevention, regulatory schemes, market-based instruments, voluntary agreements, communication and campaigns, projects and other measures.

Such policy inputs have been included in the report because they are considered to be a relevant and original integration to the policies suggested in the literature review and in experts' interviews.

#### *National strategies on food waste prevention*

- All EU 28 countries need to implement prevention measures and actions in line with the National Strategic Waste Prevention Plan.

#### *Regulatory schemes*

- Legislation on separate waste collection should be improved in some EU countries.
- To promote legislation regulating the price of perishable products approaching the expiry date (to be undertaken by both government and private actors).
- To introduce (where needed) a clear distinction among "best before", "sell-by" and "use-by" dates, with guidelines for the appropriate choice of dates, depending on product categories.
- To promote a change in the health/sanitary law aimed at allowing the sell of single products for example when a damaged packaging box contains many single edible pieces.

#### *Market-based instruments*

- Subsidies and promotion of reward systems for farmers to stimulate food waste reduction
- Provision of grants or tax credits to food supply chain operators to stimulate food waste reduction.
- VAT exemption on technology aiming at food waste reduction.
- Promotion of accelerated depreciation on materials close to the expire date. by retailers.
- Low-interest financing for businesses stimulating food waste reduction.
- A lower risk (insurance-wise) for start-up enterprises..
- Tax benefits for retailers/shops/catering facilities donating wholesome, edible food to food banks or food rescue organizations.
- Tax credit as an incentive for taxpayers to engage in food waste reduction.
- Subsidies to initiatives combining social inclusion with food waste reduction.
- Changes in the waste fee estimation method, promoting the "pay as you throw system", by calculating it on the basis of the produced quantity of waste instead of the retailer's surface (so retailers are encouraged to dispose unsold food products in a more productive way (donation, recycling, etc...)).

#### *Voluntary agreements*

- Introduction of matching funds-private public partnership.
- Introduction of voluntary reporting for retailers
- Promotion of joint agreements among the food chain actors aimed at improving the reduction of useless packaging (e.g. through awareness raising campaigns).

#### *Communication and campaigns*

- To raise awareness and engagement.
- To promote a better understanding and use of date marking.
- To raise consumers' awareness on the role of innovative packaging solutions in minimising food waste and the critical links and trade-offs between packaging, product protection and food waste.

## *Projects and other measures*

### Education

- To support joint efforts of retailers, consumers' associations and public sector to improve education on food use and waste.
- To introduce consumer education in relation to proper food storage, recycling and composting.
- To provide clear information on the number of portions and the number of days required to consume the product (e.g.: this product contains 12 portions; it can be consumed in a week by an average family).
- To use QR codes to include further information on dates, safety, conservation measures, recipes and possibility to donate.

### Packaging

- To promote the use of smaller and more flexible packaging.
- To provide economic and fiscal incentives to stimulate the research on sustainable and innovative packaging solutions addressing food waste prevention.
- To launch fiscal advantages (addressed to the food industry) to stimulate the market uptake of sustainable innovative packaging solutions with a proven contribution in reducing food waste.
- To create a specific "eco-label" for packaging products on the basis of their potential contribution in reducing food waste.

### Retailers

- To promote price reduction for close to expiry date food.
- To promote frozen/dried food (less food waste while consuming frozen food: it can be stored longer & innovations of producers to design different serving size).

Other policy measures worth to be mentioned here are those derived from the preliminary findings from FUSIONS WP4 "Feasibility studies".

WP4 has in fact contributed to set up pilot feasibility studies regarding best practices of social innovation to prevent food waste and to identify policies that could promote and support similar projects to be more easily replicated all over Europe.

### **Box 8.1 Examples of policy measures to encourage social innovation (preliminary findings from FUSIONS WP4)**

- Economic incentives, tax breaks, etc.
- Hygiene regulations - guidance notes with clarity; (e.g. lack of understanding of hygiene rules might represent a potential constrain for certain type of projects).
- National / local policy to encourage organisations/businesses to provide volunteers.
- Local authorities providing venues for events, equipment for cooking, transport for surplus food, transport for volunteers, etc. (e.g. transport of volunteers to farms for gleaning activities; venues for a disco soup events).
- Grant support (national or local government) for start-up costs; (e.g. through a dedicated fund to which applications for grants can be submitted by project managers).
- Local authorities providing access for project managers to organisations (e.g. introduction to municipal kindergartens).
- Policy to facilitate networking and information exchange (e.g. encouragement of networking activities by providing funds or venues).
- Policy to support awareness and education on food waste.
- Policy to organise and support an umbrella network organisation that facilitates information exchange, acts as a focal point for lobbying activities, organises distribution of surplus between social supermarkets, negotiates with retailers, etc.
- Policy to facilitate measurement and reporting of data on results (e.g. guidance on measurement methods, centralised reporting system, etc). There is generally a lack of reliable data on results of social innovation projects.

### Barriers to fostering social innovation in the fight against food waste policy

Evidence demonstrates that opportunities for increased productivity, efficiency and cost savings are the key drivers for waste prevention activity. The same evidence suggests that cost of waste disposal alone may not be enough to motivate all businesses.

**Market failures, constraints on the availability of resources such as finance, limited staff capacity (including management), high costs for technology or access to technology for SMEs, a stiff competition between the different food retailers and lack of awareness regarding the amount of wasted food** represent key barriers to waste prevention. A study undertaken for Defra (Oakdene Hollins, 2011) identified **corporate culture that is unsupportive** of waste prevention efforts, lack of leadership commitment and a failure to integrate waste prevention activities across business as important barriers to successful waste prevention.

Social innovation has a powerful role to play, as it may be a new combination of existing activities, crossing sectoral or disciplinary boundaries in a way that creates new relationships and promote new initiatives.

It is acknowledged that over time the costs of inaction are higher than those of action. Reducing food waste should be seen as an investment rather than as a cost. Economic and political actions often lead to “win-win” situations.

**Table 8.2 Policy measures, barriers and opportunities in the food waste sector**

Policy measures (PM)	Barriers (B)	Related EU Policy area (EUPA)
<b>PM</b> Implementation of National Strategic Waste Prevention Plan	Lack of supportive and enabling legislative framework	<b>EUPA1</b> Policy coordination
<b>PM</b> Introduction of subsidies and other positive financial instruments (e.g. reduction of VAT on technology aiming at food waste reduction; tax benefits for retailers/shops/catering facilities donating edible food; farmer reward systems for loss reduction; low-interest financing for businesses stimulating food waste reduction; uptake of sustainable and innovative packaging solutions)	Lack of supportive and enabling legislative framework Lack of financial support	<b>EUPA6</b> Access to finance <b>EUPA4</b> Communication networks and technology <b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Promotion of the “pay as you throw system”, by calculating it on the basis of the produced quantity of waste instead of the retailer’s surface	Lack of supportive and enabling legislative framework	<b>EUPA6</b> Access to finance
<b>PM</b> Improvement/simplification of food waste legislation (e.g legislation on separate waste collection, regulation of the price of perishable products approaching the expire date)	Lack of supportive and enabling legislative framework	<b>EUPA1</b> Policy Coordination <b>EUPA7</b> Health and food safety
<b>PM</b> Introduction of clear labeling (e.g. distinction between “sell-by” and “use-by” dates; number of portions and of days required to consume the product; usage of QR codes to include info on dates, safety, conservation measures, recipes and possibility to donate)	Lack of supportive and enabling legislative framework Lack of space for experimentation	<b>EUPA7</b> Health and food safety <b>EUPA4</b> Communication networks and technology
<b>PM</b> Promotion of dialogue between private and public organizations	Lack of supportive and enabling legislative framework	<b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Introduction of food waste voluntary reporting for retailers	Lack of supportive and enabling legislative framework Lack of trust	<b>EUPA1</b> Policy Coordination

<b>PM</b> Promotion of inter-sectoral and intra-sectoral private-private partnerships	Lack of supportive and enabling legislative framework	<b>EUPA1</b> Policy Coordination
<b>PM</b> Promotion and dissemination of knowledge/information (e.g info on the role of innovative packaging solutions and the critical links among packaging, product protection and food waste)	Lack of financial support	<b>EUPA3</b> Education and training
<b>PM</b> Educational campaigns (e.g. on proper food storage, recycling and composting)	Lack of financial support	<b>EUPA3</b> Education and training
<b>PM</b> Creation of eco-labels (e.g. for packaging products on the basis of their potential contribution in reducing food waste)	Lack of supportive and enabling legislative framework	<b>EUPA6</b> Access to finance
<b>PM</b> Promotion of inter-sectoral and intra-sectoral private-private partnerships	Lack of trust	<b>EUPA2</b> Entrepreneurship and SME
<b>PM</b> Promotion of frozen/dry food use (frozen food can be stored longer)	Lack of supportive and enabling legislative framework	<b>EUPA7</b> Health and food safety

# 9 Conclusions

## Stimulating social innovation in selected sectors

The review of policy measures stimulating social innovation in the selected sectors emphasized that social innovation can be stimulated through a variety of policy tools that might stimulate – directly or indirectly – the creation, diffusion and scaling up of social innovation. These measures include:

- **Sharing of best practices:** in the field of food waste reduction and prevention initiatives, the sharing of experiences, processes and innovations can enable more efficient and effective actions.
- **Promoting engagement in the decision-making process:** in the field of food waste reduction and prevention, the involvement of food chain stakeholders as well as of local communities can enable the emergence of new innovative strategies and support a deeper awareness of food waste implications.
- **Creating new business models for collaboration between regular and social economy (based on the principles of solidarity and mutuality):** in the field of food waste reduction and prevention collaborative approaches between profit and non profit organizations can become a crucial source of innovation in advanced economies. Retail and charity organizations arranging ‘solidarity stores’ for the collection, sale, or use of discarded ‘sub-standard’ products that are still safe, good and have nutritional value are a good example.
- **Developing public procurement guidelines:** in the field of food waste reduction and prevention, PP guidelines could help to drive growth in the food industry and benefit the environment through reduced waste, higher take-up of meals and less food left on plates.
- **Enhancing public and private investments in corporate innovation:** in the field of food waste reduction and prevention, companies could save billions of euros by using new, innovative approaches to reducing food waste. For example corporate innovations could make a change in packaging food and monitoring fresh produce.

## Social innovation to address food waste prevention and reduction: the role of consumers.

Social innovation is people focused, both in terms of its delivery and its beneficiaries. It is delivered through relationships and collaboration, it is grounded in the process of social interaction and it has a socially recognized goal. This means that individuals and social groups play a role of extraordinary importance in the creation and promotion of social innovation.

The typical targets of social innovation are complex problems – as in the case of food waste – which have multiple causes and aren’t solved easily by traditional processes.

In relation to food waste, social innovation is grounded around three main elements: *people*, the main engine to create and develop new ideas, *food*, a mixed private-public good with high cultural, social and symbolic values and potentially high negative externalities mainly related to its (mis)use, and *donation*, intended as the act of offering products (food), time or services and competencies.

People play such an important role also because a large food waste fraction is generated at the household level. FUSIONS has identified the main groups of factors leading to the formation of household food waste: 1. social factors, such as household type, culture; and lifestyles; 2. individual behaviours and attitudes; 3. expectations towards foods; and 4. consumers’ lack of awareness, knowledge and skills (FUSIONS, 2014).

Food production and consumption models in developed countries have changed significantly in the past decades. A supply-driven system characterized by scarcity and limited choice

has evolved into a demand-driven system characterized by abundance (Verain, 2015; Davies, 2001).

Donation, if well organized, can be an effective tool to correct the negative effects of current models of food production and consumption models.

In such a context social innovation can work for the people, addressing food waste prevention and reduction, only if the people is informed, stimulated and enabled to share ideas and time, create, work together.

This study showed that consumers are commonly: the targets of communication and educational campaigns intended to raise awareness on the food waste issue; the beneficiaries of market-based instruments like governmental subsidies (e.g. for buying technology aiming at food waste reduction and/or for launching initiatives that combine social inclusion with food waste reduction); the recipients of fiscal benefits (e.g. tax credit as an incentive for taxpayers to engage in food waste reduction and/or low-interest financing for businesses stimulating food waste reduction); and the “passive” receivers of educational programmes and information on food waste, food safety, conservation measures, recipes (in the form of QR codes on product packaging, ad hoc websites and apps, social media products).

However, consumers do also play an active and key role in a number of policy areas including the sharing of best practices, the community engagement in the decision-making process regarding food waste minimization strategies, the building of new business models for collaboration between regular and social economy based on the principles of solidarity and mutuality.

They are able to change the food waste scenario by launching social innovation initiatives – such as consumers’ movements, food rescue and food transformation initiatives.

The global movement of social innovators is growing; they generate new ideas and methods that are effective, easy to replicate and business tested – and they are gaining global recognition for the significant role they play in reducing food waste. FUSIONS itself is raising awareness on the importance of social innovations to prevent, reduce and manage food waste. Furthermore, initiatives like the Food Surplus Entrepreneurs Network has developed various types of activities to tackle food waste throughout the supply chain: prevention of food waste at the source, awareness-raising towards consumers, processing of food surplus into a product or a meal and redistribution of food surplus to people in need.

The scaling up of existing promising innovations is vital, as well as the design of an ecosystem based on the creation and replication of best-practices and social innovations.

Consumers have an important role to play and their contribution to the fight against waste is of utmost relevance.

### **How policy can stimulate social innovation addressing food waste prevention and reduction**

Social innovations to address societal challenges already exist and have become part of our daily life; for instance, food waste reduction and prevention, recycling, fair trade labels, eco-tourism, shared cycling in cities, eco-building, slow food initiatives, and prevention of and adaptation to climate change are just a few of the many areas where social innovations prove to be successful tools. However, given the ever-lengthening list of challenges, the field for devising and implementing novel solutions via social interactions can always be improved and expanded.

Strategic documents as well as experts and stakeholders from different sectors call for “the promotion of a widespread adoption of social innovations as a component of the EU tool box for effectively addressing poverty, generating sustainability and well-being and promoting a learning and participative society” (EC, 2010).

In the food waste sector - as well as in other areas - policies should aim at creating enabling conditions and mobilising resources. Building on elements of governance, financing, capacity building and research and on tools such as incubators, hubs, forums,

prizes and research in methodologies, benchmarking and impact measurement policies could help to develop some significant initiatives addressing societal challenges to be launched by the Commission. Experimentation and validation processes at EU level would also benefit from sampling projects in a wider field.

The role of the EU in the monitoring, validation and transnational transfer of experience would be most valuable for boosting a movement which is so far not evenly spread across the European Union.

The aim is to create the socio-economic and cultural conditions for an innovative, risk-taking society. An enabling system based on a risk-sharing approach that is institutionally embedded and gives proactive support and trust to individuals as employees, entrepreneurs, family members and citizens when engaged in creating value, is necessary at a time of shrinking budgets and increasing health, education and caring needs. The development of a 'general theory of social innovation' (Hämäläinen and Heiskala 2007) bringing conceptual knowledge to a fragmented sector would structure the process and bring meaning to actions that engage systemic changes. Research and public-sector initiatives would play a leading role in promoting this approach.

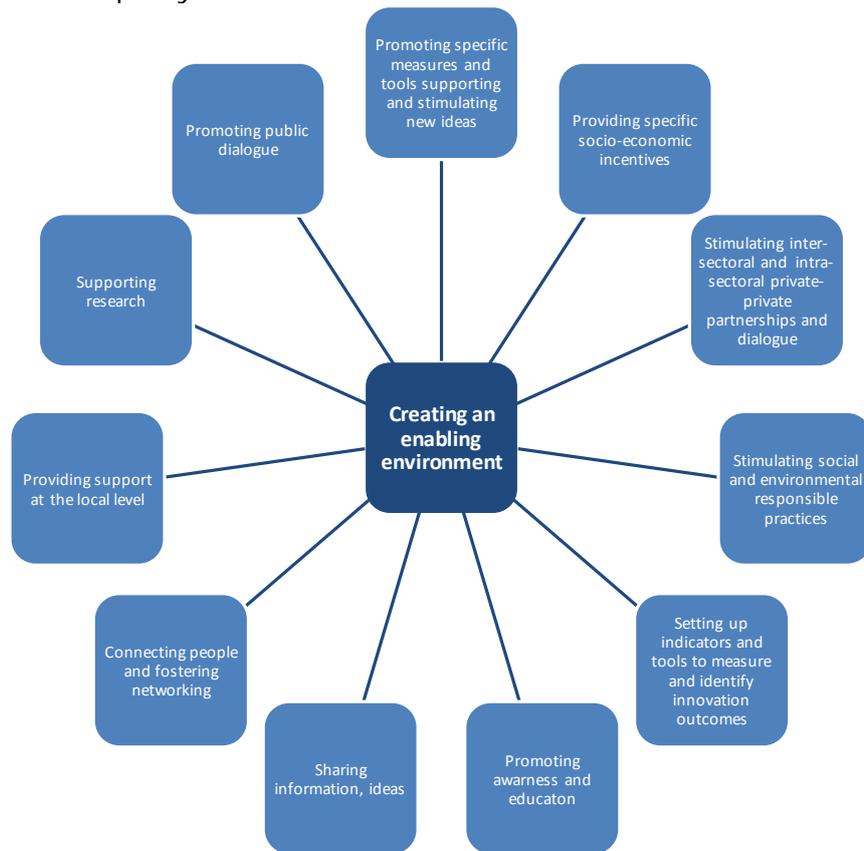
This work emphasizes that policies stimulating social innovation in the food waste sector should be aimed at the **creation of an enabling policy environment** through the *design and implementation of specific national strategic food waste prevention strategies, the simplification of food waste legislation* (e.g legislation on separate waste collection, regulation of the price of perishable products approaching the expire date), or *the introduction of clear labelling systems* (e.g. distinction between "sell-by" and "use-by" dates; number of portions and of days required to consume the product; usage of QR codes to include info on dates, safety, conservation measures, recipes and possibility to donate) and *certification schemes*.

Measures aimed at the creation of an enabling policy environment might include:

- **The promotion of specific measures** and tools as the introduction of food waste voluntary reporting for retailers.
- **The provision of specific socio-economic incentives** to create new business models for collaboration between regular and social economy or to stimulate behaviors at the business and consumer level.
- **The stimulation of inter-sectoral and intra-sectoral private-private partnerships and dialogue** as the introduction of voluntary and negotiated agreements.
- **The introduction of social and environmental responsible practices** by including food waste prevention and reduction requirement in green public procurement procedures or extending corporate social responsibility (CSR).
- **The promotion of public dialogue** among communities, entrepreneurs and other stakeholders.
- **Investments in research and innovation.**
- **The support to innovators and CSOs at the local level** (providing venues for events, equipment for cooking, transport for surplus food and for volunteers).
- **The development of networking activities** through projects and by promoting ICT access, use and skills.
- **The dissemination of information and ideas** (e.g info on the role of innovative packaging solutions and the critical links among packaging, product protection and food waste)
- **The promotion of awareness and education.**
- **The identification and set up of indicators** and tools to measure and identify innovation outcomes.

The transition to a sustainable food system where food waste is minimized should be backed by the right set of policies at multiple levels – international, regional, and national. Country level and EU commitments to reduce and prevent food waste through social innovation can create excellent opportunities to embed timed and clearly identified targets, strategies and programs into plans and actions.

Figure 9.1 How policy can stimulate social innovation



Source: authors' elaboration

# 10 References

## Social innovation

EC (2010a) *This is European Social Innovation*. Brussels. [Online] Available from: [http://ec.europa.eu/enterprise/flipbook/social\\_innovation/](http://ec.europa.eu/enterprise/flipbook/social_innovation/) (Accessed 15th January 2016).

EC (2010b) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on *Europe 2020 Flagship Initiative Innovation Union*. Sec (2010) 1161, Brussels. [Online] Available from: [https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication\\_en.pdf](https://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf) (Accessed 15th January 2016).

EC (2010c) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on Reviewing Community innovation policy in a changing world*. COM(2009) 442 final, Brussels. [Online] Available from: <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52009DC0442&from=EN> (Accessed 15th January 2016).

EC (2013) *Guide to Social Innovation*. Brussels. [Online] Available from: <http://s3platform.jrc.ec.europa.eu/documents/10157/47822/Guide%20to%20Social%20Innovation.pdf> (Accessed 15th January 2016).

EC (2014a) *BEPA Report: Social Innovation: A decade of changes*. Luxembourg. [Online] Available from: [http://espas.eu/orbis/sites/default/files/generated/document/en/social\\_innovation\\_decade\\_of\\_changes.pdf](http://espas.eu/orbis/sites/default/files/generated/document/en/social_innovation_decade_of_changes.pdf) (Accessed 15th January 2016).

EC (2014b) A Map of Social Enterprises and their Eco-systems in Europe. Brussels. [Online] Available from: [ec.europa.eu/social/BlobServlet?docId=12998](http://ec.europa.eu/social/BlobServlet?docId=12998) (Accessed 15th January 2016).

EC (2015) *Innovation Union Scoreboard*. Brussels. [Online] Available from: [http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index\\_en.htm](http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm) (Accessed 15th January 2016).

European Commission, DG Growth, Internal Market, Industry, Entrepreneurship and SMEs (2015), European Social Innovation Competition <http://ec.europa.eu/growth/industry/innovation/policy/social/competition/> (Accessed 13<sup>th</sup> of November 2015).

Fiegen, A.M. (2010) Systematic review of research methods: the case of business instruction. *Reference Services Review*. [Online] Vol. 38, No. 3, pp. 385-397. Available from: <http://dx.doi.org/10.1108/00907321011070883> (Accessed 5th September 2015).

Gupta J., Shin H.Y., Matthews R., Meyfroidt P., Kuik O. (2013) The forest transition, the drivers of deforestation and governance approaches. In: Gupta J., van der Grijp N., Kuik O. (eds) *Climate change, forests and REDD: lessons for institutional design*. Routledge, London, pp 25–51.

Heckl, E. and Pecher I. (2008) *Study on Practices and Policies in the Social Enterprise Sector in Europe*. Final Report, KMU Forschung Austria and European Commission. [Online] Available from: [ec.europa.eu/enterprise/newsroom/cf/getdocument.cfm?doc](http://ec.europa.eu/enterprise/newsroom/cf/getdocument.cfm?doc) (Accessed 15th January 2016).

Hidalgo Landa, A., Szabo, I., Le Brun L., Owen, I., and Fletcher, G. (2011) Evidence Based Scoping Reviews. *The Electronic Journal Information Systems Evaluation*. [Online] Vol. 14, No. 1, pp. 46-52. Available from: <http://www.ejise.com/volume14/issue1/p46> (Accessed 15th January 2016).

Hubert A. (2010) *Empowering people, driving change: Social innovation in the European Union*, Bureau of European Policy. [Online] Available from: [http://www.net4society.eu/media/Social\\_innovation\\_europe.pdf](http://www.net4society.eu/media/Social_innovation_europe.pdf) (Accessed 15th January 2016).

Ruiz Viñals C., Rodríguez C. P., (2012) *Social Innovation: New Forms of Organisation in Knowledge-Based Societies*. Routledge/Lisbon Civic Forum Studies in Innovation, New York.

Weimer D. L., Vining A. R. (2010) *Policy analysis: concepts and practice*. Longman, London.

### **Social Innovation in Denmark**

DAMVAD Analytics, (2013) [Online] Available from: [http://damvad.se/media/71948/social\\_innovation\\_og\\_sociale\\_ivaerksaettere\\_i\\_yderomradet.pdf](http://damvad.se/media/71948/social_innovation_og_sociale_ivaerksaettere_i_yderomradet.pdf) (Accessed 15th January 2016).

DANSIC – Danish Social Innovation Club (2012) *Platform for Social Innovation tackles insustainability*. [Online] Available from: <http://designtoimprovelife.dk/dansic> (Accessed 13th August 2015).

The Innovation Policy Platform (IPP) Denmark, *STI Outlook 2014 Country Profile*. [Online] Available from: <https://www.innovationpolicyplatform.org/content/denmark> (Accessed 15th January 2016).

### **Social Innovation in the UK**

Pharmatimes (2014), *UK is an innovation follower*. [Online] Available from: [http://www.pharmatimes.com/Article/14-03-04/UK\\_is\\_an\\_innovation\\_follower\\_says\\_EU.aspx](http://www.pharmatimes.com/Article/14-03-04/UK_is_an_innovation_follower_says_EU.aspx) (Accessed 7th September 2015).

UK Department for Business Innovation and Skills (2014) *Innovation Report*. London. [Online] Available from: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/293635/bis-14-p188-innovation-report-2014-revised.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/293635/bis-14-p188-innovation-report-2014-revised.pdf) (Accessed 15th January 2016).

### **Environmental sector**

Addarii, F. (2015) Skype interview conducted by Silvia Gaiani, 2nd March.

Biggs, R., Westley F. R., and Carpenter S. R. (2010) Navigating the back loop: fostering social innovation and transformation in ecosystem management. *Ecology and Society* [Online] 15(2): 9. Available from: <http://www.ecologyandsociety.org/vol15/iss2/art9> (Accessed 15th January 2016).

Butkeviciene E. (2009) Social Innovations in Rural Communities. Methodological framework and empirical evidence. *Lithuania Social Sciences Journal*, [Online] n.1 pp 80-88. Available from:

[http://www.researchgate.net/publication/255896498\\_Social\\_innovations\\_in\\_rural\\_communities\\_methodological\\_framework\\_and\\_empirical\\_evidence](http://www.researchgate.net/publication/255896498_Social_innovations_in_rural_communities_methodological_framework_and_empirical_evidence) (Accessed 15th January 2016).

Davies, A. & Simon, J. (2013) *Engaging Citizens in Social Innovation: A short guide to the research for policy makers and practitioners*. A deliverable of the project: "The theoretical, empirical and policy foundations for building social innovation in Europe" (TEPSIE), European Commission – 7th Framework Programme, Brussels: European Commission, DG Research. [Online] Available from: <http://youngfoundation.org/publications/engaging-citizens-in-social-innovation-a-short-guide-to-the-research-for-policy-makers-and-practitioners> (Accessed 15th January 2016).

EC (2011) *Proposal for a Directive of the European Parliament and the Council on public procurement*. Brussels. [Online] Available from: [http://ec.europa.eu/dgs/secretariat\\_general/relation/relation\\_other/npo/docs/italy/2011/com20110895\\_896/com20110895\\_896\\_deputati\\_opinion\\_en.pdf](http://ec.europa.eu/dgs/secretariat_general/relation/relation_other/npo/docs/italy/2011/com20110895_896/com20110895_896_deputati_opinion_en.pdf) (Accessed 15th January 2016).

FUSIONS (2014) Policy Paper on Social Innovation, *Stimulating social innovation through policy measures*. [Online] Available from: [www.eu-fusions.org/.../publications](http://www.eu-fusions.org/.../publications) (Accessed 15th January 2016).

Giordano, A. (2015) Skype interview conducted by Silvia Gaiani, 15th March.

Guillen G., Nicolau M., Spittler N., Duarte D., (2013) *Collaboration for Sustainable Lifestyles through Business and Social Innovation*, Collaboration Centre on Sustainable Consumption and Production (CSCP), Berlin. [Online] Available from: [http://www.scp-centre.org/fileadmin/content/files/4\\_projects/76\\_BIG2050/Workstudio\\_Berlin\\_Report\\_final\\_01.pdf](http://www.scp-centre.org/fileadmin/content/files/4_projects/76_BIG2050/Workstudio_Berlin_Report_final_01.pdf) (Accessed 15th January 2016).

Moore M-L., Westley F. R. (2011) *Public Sector Policy and Strategies for Facilitating Social Innovation*. [Online] Available from: <http://sig.uwaterloo.ca/highlight/public-sector-policy-and-strategies-for-facilitating-social-innovation> (Accessed 15th January 2016).

Olsson P., Folke C., and Hahn T. (2004) Social-ecological transformation for ecosystem management: the development of adaptive co-management of a wetland landscape in southern Sweden, *Ecology and Society*. [Online] 9(4): 2. Available from: <http://www.ecologyandsociety.org/vol9/iss4/art2> (Accessed 15th January 2016).

Schaffers H., Merz C., Garcia Guzman J. (2009) *Living Labs as Instruments for Business and Social Innovation in rural areas*, Proceedings of the ICE 2009. [Online] Available from: [http://www.researchgate.net/...Living\\_Labs\\_as\\_Instruments\\_for\\_Business](http://www.researchgate.net/...Living_Labs_as_Instruments_for_Business) (Accessed 15th January 2016).

Science Communication Unit, University of the West of England, Bristol (2014) *Science for Environment Policy In-depth Report: Social Innovation and the Environment*, Report produced for the European Commission, DG Environment. [Online] Available from: <http://ec.europa.eu/science-environment-policy> (Accessed 15th January 2016).

## **Health sector**

Ashurst J.E., Jones R.B., Abraham C., Jenner M., Boddy K., Besser R.E.J., Hammersley S. and Pinkney J. (2014) The Diabetes App Challenge: user-led development and piloting of internet applications enabling young people with diabetes to set the focus for their diabetes consultations. *Medicine 2.0*. [Online] 3(2): e5. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4318679/> (Accessed 15th January 2016).

Currie W.L. and Seddon J.M. (2014) Social Innovation in Public Health: Can Mobile Technology Make a Difference? *Information Systems Management*. [Online] 31:3, 187-199. Available from: <http://www.tandfonline.com/doi/pdf/10.1080/10580530.2014.923263#.Ve7aB95CxbU> (Accessed 15th January 2016).

Currie W.L. and Guah M. (2007) Conflicting institutional logics: A national program for IT in the organizational field of healthcare. *Journal of Information Technology*. [Online] 22(3), 235–247. Available from: <http://www.palgrave-journals.com/jit/journal/v22/n3/full/2000102a.html> (Accessed 15th January 2016).

De Leeuw E. (1999) Healthy cities: urban social entrepreneurship for health. *Health Promotion International*. [Online] Vol 14, No 3. Available from: <http://heapro.oxfordjournals.org/content/14/3/261.full> (Accessed 15th January 2016).

EC (2010d) *Empowering people, driving change: Social innovation in the European Union*. Brussels. [Online] Available from: [http://www.net4society.eu/media/Social\\_innovation\\_europe.pdf](http://www.net4society.eu/media/Social_innovation_europe.pdf) (Accessed 15th January 2016).

EC (2012) Communication from The Commission to the European Parliament, The Council, the European Economic and Social Committee and the Committee of the Regions, *eHealth Action Plan 2012-2020 - Innovative healthcare for the 21st century*, SWD(2012) 413 final, SWD(2012) 414 final, COM(2012) 736 final. Brussels. [Online] Available from: <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52012DC0736> (Accessed 15th January 2016).

EC (2013a) *Guide to social innovation*. Brussels. [Online] Available from: [http://ec.europa.eu/regional\\_policy/sources/docgener/presenta/social\\_innovation/social\\_innovation\\_2013.pdf](http://ec.europa.eu/regional_policy/sources/docgener/presenta/social_innovation/social_innovation_2013.pdf) (Accessed 15th January 2016).

EC (2013b) EU-funded projects on *ICT for Aging Well*, Brussels. [Online] Available from: <http://ec.europa.eu/digital-agenda/en/news/overview-eu-funded-running-projects-area-ict-ageing-well> (Accessed 15th January 2016).

Lattanzio F., Abbatecola A., Bevilacqua R., Chiatti C., Corsonello A., Rossi L., Bustacchini S., Bernabei R. (2014) Advanced Technology Care Innovation for Older People in Italy: Necessity and Opportunity to Promote Health and Wellbeing. *JAMDA*. [Online] 15, 457-466. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24836715> (Accessed 15th January 2016).

Mapham J. and Kornikn C. (2011) Social entrepreneurship in health. *CME Continuing Medical Education*. [Online] Vol 29, No 2. Available from: <http://www.cmej.org.za/index.php/cmej/article/view/2015> (Accessed 15th January 2016).

Mark A. (2007) Modernizing healthcare—is the NPfIT for purpose. *Journal of Information Technology*. [Online] 22(3), 248–256. Available from: <http://www.bcs.org/upload/pdf/jit-special-issue.pdf> (Accessed 15th January 2016).

Mattson, M. (2015) Skype interview conducted by Maria Elander, 6th March.

Mulgan G., Tucker S., Ali R. and Sanders B. (2007) *Social innovation what it is, why it matters and how it can be accelerated*, Oxford Said Business School, Working Paper. [Online] Available from: <http://youngfoundation.org/wp-content/uploads/2012/10/Social-Innovation-what-it-is-why-it-matters-how-it-can-be-accelerated-March-2007.pdf> (Accessed 15th January 2016).

Nielsen J.A. and Mengiste S.A. (2013) Analysing the diffusion and adoption of mobile IT across social worlds. *Health Informatics Journal* 2014. [Online] Vol. 20(2) 87–103. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/24810724> (Accessed 15th January 2016).

OECD (2013a) *Health at a Glance 2013: OECD Indicators*, OECD Publishing. [Online] Available from: <http://www.oecd.org/els/health-systems/Health-at-a-Glance-2013.pdf> (Accessed 15th January 2016).

OECD (2013b) *Policy Brief on Social Entrepreneurship, Entrepreneurial Activities in Europe*, European Commission and OECD. [Online] Available from: [http://www.oecd.org/cfe/leed/Social%20entrepreneurship%20policy%20brief%20EN\\_FINALE.pdf](http://www.oecd.org/cfe/leed/Social%20entrepreneurship%20policy%20brief%20EN_FINALE.pdf) (Accessed 15th January 2016).

Roy M., Donaldson C., Baker R., Kerr S. (2014) The potential of social enterprise to enhance health and well-being: A model and systematic review. *Social Science & Medicine* 123. [Online] pp. 182–193. Available from: <http://www.sciencedirect.com/science/article/pii/S0277953614004602> (Accessed 15th January 2016).

VINNOVA (2014) *Social Innovation i vården och omsorgen- Trygghetsskapande åtgärder* (in English: Social innovation in health), Sammanställd av Johanna Ulvfarson. [Online] Available from: <http://www.vinnova.se/sv/Var-verksamhet/Innovationsformaga-hos-specifika-malgrupper/Individer-och-innovationsmiljoer/Social-innovation/Sociala-innovationer/> (Accessed 15th January 2016).

Wicks P., Stamford J., Grootenhuys M.A., Haverman L. and Ahmed S. (2013) Innovations in e-health. *Qual Life Res* 2014. [Online] 23:195–203. Available from: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3929022/> (Accessed 15th January 2016).

### **Workplace innovation sector**

Alasoini T. (2008) Building Better Programmes: Learning Networks in the Promotion of Workspace Innovation. Proceedings of the conference "Insightful Encounters - Regional Development and Practice-Based Learning", 5<sup>th</sup>-7<sup>th</sup> March 2008, Porvoo, Finland. [Online] Available from: [http://myy.haaga-helia.fi/~tk/Insightful\\_Encounters/Material/Text/Full%20Papers/2.Learning%20Networks/2.LearningNetworks\\_Alasoini.pdf](http://myy.haaga-helia.fi/~tk/Insightful_Encounters/Material/Text/Full%20Papers/2.Learning%20Networks/2.LearningNetworks_Alasoini.pdf) (Accessed 15th January 2016).

Alasoini T. (2009) Strategies to promote Workplace Innovation: A Comparative Analysis of Nine National Regional Approaches. *Economical and Industrial Democracy*. [Online] Vol. 30(4): 614–642. Available from: <http://eid.sagepub.com/content/30/4/614.refs> (Accessed 15th January 2016).

Beblavý M., Maselli I. and Martellucci E. (2012) *Workplace Innovation and Technological Change*, CEPS Special Report No. 65. Brussels. [Online] Available from: [http://aei.pitt.edu/36817/1/ceps\\_7.pdf](http://aei.pitt.edu/36817/1/ceps_7.pdf) (Accessed 15th January 2016).

Bhaskaran S. (2006) Incremental innovation and business performance: small and medium-size food enterprises in a concentrated industry environment. *Journal of Small Business Management*. [Online] Vol. 44(1): 64–80. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1540-627X.2006.00154.x/abstract> (Accessed 15th January 2016).

Binks J. (2006) *Using Public Procurement to Drive Skills and Innovation: A Report for the Department of Trade and Industry*, The Local Futures Group, London. [Online] Available

from: <http://www.tfc-training.com/ukps/public%20Procurement%20Report%20eBook.pdf>  
(Accessed 15th January 2016).

Eeckelaert L. et al. (2012) *Review of workplace innovation and its relation with occupational safety and health*. European Agency for Safety and Health at Work, Bilbao. [Online] Available from: <https://osha.europa.eu/en/tools-and-publications/publications/reports/workplace-innovation-review> (Accessed 15th January 2016).

Forsyth A. et al. (2006) *Regulating for Innovation in Workplace Production and Employment Systems: A Preliminary Discussion of Issues and Themes*, Paper presented to the 3rd Australian Labour Law Association National Conference, 22–23 September 2006, Brisbane. [Online] Available from: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1129663](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1129663) (Accessed 15th January 2016).

Ichniowski C., Shaw K., Prennushi G. (1996) The Effects of Human Resource Management Practices on Productivity. *American Economic Review*. [Online] Vol. 87(3):291–313. Available from: <https://www.gsb.stanford.edu/faculty-research/publications/effects-human-resource-management-practices-productivity> (Accessed 15th January 2016).

Kalmi K. and Kauhanen C. (2008) Workplace Innovations and Employee Outcomes: Evidence from Finland. *Industrial Relations*. [Online] Vol. 47(3): 430-459. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-232X.2008.00528.x/abstract> (Accessed 15th January 2016).

Keep E., Payne J. (2002) *What can the UK Learn from the Norwegian and Finnish Experience of Attempts at Work Re-Organisation?* SKOPE Research Paper No.41 Spring 2002. [Online] Available from: <http://www.skope.ox.ac.uk/wordpress/wp-content/uploads/2014/04/SKOPEWP41.pdf> (Accessed 15th January 2016).

Oeij P.R.A., Dhondt S., Korver T. (2011) Workplace Innovation, Social Innovation, and Social Quality. *International Journal of Social Quality*. [Online] Vol. 1(2): 31-49. Available from: <http://ingentaconnect.com/content/berghahn/ijsq/2011/00000001/00000002/art00004> (Accessed 15th January 2016).

Oeij P.R.A., Dhondt S., Kraan K., Vergeer R., Pot F. (2012) *Workplace innovation and its relations with organisational performance and employee commitment*. LLiNE Lifelong Learning in Europe. [Online] Issue 4/2012. Available from: <http://www.lline.fi/en/article/policy/oeij/workplace-innovation-and-its-relations-with-organisational-performance-and-employee-commitment> (Accessed 15th January 2016).

Oeij, P.R.A. (2015) Skype interview conducted by Benjamin Biesdorf, 22th April.

Pot F.D. (2011) Workplace innovation for better jobs and performance. *International Journal of Productivity and Performance Management*. [Online] Vol. 64(4):404-415. Available from: <http://www.emeraldinsight.com/doi/pdf/10.1108/17410401111123562> (Accessed 15th January 2016).

Sisson K., Marginsson P. (2001) *Soft Regulation – Travesty of the Real Thing or New Dimension? One Europe or Several?* Working Paper, One-Europe Programme, Vol. 32 [Online] Available from: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.199.5191&rep=rep1&type=pdf> (Accessed 15th January 2016).

Totterdill P. (2010) *Workplace innovation. Europe 2020's missing dimension*, Report of a workshop hosted by DG Employment, Social Affairs and Equal Opportunities, 23 June 2010,

Brussels. [Online] Available from: <http://www.workinnet.org/dateien/Documentation-WIN-in-Brussels.pdf> (Accessed 15th January 2016).

Totterdill, P. (2012) *Closing the gap between evidence-based practice and common practice - Workplace innovation and public policy in Europe*. LInE, Lifelong Learning in Europe, Issue 4/2012. [Online] Available from: <http://www.lline.fi/en/article/policy/totterdill/closing-the-gap-between-evidence-based-and-common-practice-workplace-innovation-and-public-policy-in-europe> (Accessed 15th January 2016).

Trubek D.M., Trubek L.G. (2005) Hard and Soft Law in the Construction of Social Europe: The Role of the Open Method. *European Law Journal*. [Online] Vol. 11, No. 3, May 2005 343–364. Available from: <http://onlinelibrary.wiley.com/store/10.1111/j.1468-0386.2005.00263.x/asset/> (Accessed 15th January 2016).

### Regional strategies

Christmann, G. (2014) Social Entrepreneurs on the Periphery. *The Planning Review*. [Online] Vol.50, Issue 1, 43-55. Available from: <http://www.tandfonline.com/doi/abs/10.1080/02513625.2014.926725#.Ve7qeN5CxbU> (Accessed 15th January 2016).

FoodCycle (2014) *Social Impact Report 2014*. London. [Online] Available from: <http://foodcycle.org.uk/wp-content/uploads/2014/10/4891-Social-Impact-Report-Brochure-V4-Spreads-LoRes.pdf> (Accessed 15th January 2016).

Heiniemi-Pulkkinen, C. (2015) Skype interview conducted by Kirsi Silvennoinen, 6th March.

Jayawardhana, K. (2014) Conceptualizing the role of market learning in social innovation-based competitive strategy. *Proceedings of International Conference on Business Management*. [Online] vol 11. Available from: <http://journals.sjp.ac.lk/index.php/icbm/article/view/2113> (Accessed 15th January 2016).

Kinneara, S. and Ogdena, I. (2014) Planning the innovation agenda for sustainable development in resource regions: A central Queensland case study. *Resources Policy*. [Online] Volume 39, March 2014, Pages 42–53. Available from: <http://www.sciencedirect.com/science/article/pii/S0301420713000901> (Accessed 15th January 2016).

Laville, J-L., Gardin L., Levesque B., and Nyssens M. (1994) *L'économie solidaire, une perspective internationale*, Hachette Littératures, Paris. [Online] Available from: <https://developpementdurable.revues.org/6022> (Accessed 15th January 2016).

Morgan B. (2015) Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy, Book review in *Regional Studies*. [Online] Available from: <http://s3platform.jrc.ec.europa.eu/documents/10157/5db6db2d-cec8-43be-9b5d-95e53354bb51> (Accessed 15th January 2016).

Moulaert, F. & Cedri, J. (2009) Social Innovation In Local Economic Development Strategies, Proceedings of the conference "Cultural actions for Europe 1994", Workshop 2: "Regional / Urban Planning and Culture", 3<sup>rd</sup>-5<sup>th</sup> June 1994, Athens [Online] Available from: <http://poieinkaiprattein.org/conferences-symposiums-workshops/cultural-actions-for-europe/the-workshops/workshop-2-regional-urban-planning-and-culture/> (Accessed 15th January 2016).

Moulaert F. (2009) Social Innovation: Institutionally Embedded, Territorially (Re) Produced, Proceedings of the conference "Innovare il welfare", 29<sup>th</sup> September- 1<sup>st</sup> October 2011,

Milan. [Online] Available from: [http://www.espanet-italia.net/conferenza2011/edocs2/amc/9-Moulaert%20\(keynote\).pdf](http://www.espanet-italia.net/conferenza2011/edocs2/amc/9-Moulaert%20(keynote).pdf) (Accessed 15th January 2016).

Neumeier, S. (2012) Why do Social Innovations in Rural Development Matter and Should They Be Considered More Seriously in Rural Development Research? *Sociologia Ruralis*. [Online] Volume 52, Issue 1, 48–69. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9523.2011.00553.x/abstract> (Accessed 15th January 2016).

Nichols, A. (2006) *Introduction to Social entrepreneurship: New models of sustainable change*, Oxford University Press, Oxford. [Online] Available from: <https://www.questia.com/library/119779372/social-entrepreneurship-new-models-of-sustainable> (Accessed 15th January 2016).

Rantanen, M. (2015) Skype interview conducted by Kirsi Silvennoinen, 6th March.

Weerawardena J. and Sullivan M. (2001) Learning, Innovation and Competitive Advantage in No-for-profit aged care marketing. *Journal of Non-Profit & Public Sector Marketing*. [Online] (3), 53–73. Available from: [http://www.tandfonline.com/doi/abs/10.1300/J054v09n03\\_04#.Ve\\_rpd5CxbU](http://www.tandfonline.com/doi/abs/10.1300/J054v09n03_04#.Ve_rpd5CxbU) (Accessed 15th January 2016).

### **Social economy and social entrepreneurship**

Bogaardt, M.J. (2015) Skype interview conducted by Lusine Aramyan 3rd April.

Boons D. and Lüdeke-Freund C. (2012) Business Models for Sustainable Innovation: State of the Art and Steps Towards a Research Agenda. *Journal of Cleaner Production*. [Online] 45, 9–19. Available from: [http://ac.els-cdn.com/S0959652612003459/1-s2.0-S0959652612003459-main.pdf?\\_tid=b5d27d6e-56cb-11e5-809b-00000aab0f27&acdnat=1441787043\\_732e96e24704b02cb23099c62e71bb9e](http://ac.els-cdn.com/S0959652612003459/1-s2.0-S0959652612003459-main.pdf?_tid=b5d27d6e-56cb-11e5-809b-00000aab0f27&acdnat=1441787043_732e96e24704b02cb23099c62e71bb9e) (Accessed 15th January 2016).

CDEC du Québec (2015) *Corporations de développement économique communautaire*. [Online] Available from: [https://www.cdec-centrenord.org/filesNVIAdmin/File/Rapport\\_activite\\_2015.pdf](https://www.cdec-centrenord.org/filesNVIAdmin/File/Rapport_activite_2015.pdf) (Accessed 15th January 2016).

Chalmers, D. (2013) Social innovation: An exploration of the barriers faced by innovating organizations in the social economy. *Local Economy*. [Online] 28(1) 17–34. Available from: <http://lec.sagepub.com/content/28/1/17.abstract> (Accessed 15th January 2016).

EC (2014) *A Map of Social enterprises and their ecosystems in Europe*, Brussels. [Online] Available from: <http://ec.europa.eu/social/main.jsp?langId=en&catId=89&newsId=2149> (Accessed 15th January 2016).

ESF (2015) Commission adopts the ESF operational programme for Mazowieckie in Poland. [Online] Available from: <http://ec.europa.eu/esf/main.jsp?catId=67&langId=en&newsId=8570> (Accessed 15th January 2016).

Moulaert F. and Ailenei O (2005), *Social economy, third sector and solidarity relations: a conceptual synthesis from history to present*, Urban Studies, Vol. 42, No. 11, 2037–2053.

Moulaert, F. (2015) Skype interview conducted by Lusine Aramyan, 9th April.

OECD (2013b) *Policy Brief on Social Entrepreneurship*, Publications Office of the European Union. [Online] Available from: [http://www.oecd.org/cfe/leed/Social%20entrepreneurship%20policy%20brief%20EN\\_FINALE.pdf](http://www.oecd.org/cfe/leed/Social%20entrepreneurship%20policy%20brief%20EN_FINALE.pdf) (Accessed 15th January 2016). [Quoted also in the Health sector]

Oliveira C. and Breda-Vázquez I. (2012) Creativity and Social Innovation: What Can Urban Policies Learn from Sectorial Experiences? *International Journal of Urban and Regional Research*. [Online] Volume 36.3 522–38. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1468-2427.2011.01024.x/abstract> (Accessed 15th January 2016).

Seelos, C., Mair, J. (2005) Social entrepreneurship: creating new business models to serve the poor. *Business Horizons*. [Online] 48, 241-246. Available from: [http://www.2008.sofimun.org/SOFIMUN2008-CM-UNECOSOC-Topic-Extra\\_info-2.pdf](http://www.2008.sofimun.org/SOFIMUN2008-CM-UNECOSOC-Topic-Extra_info-2.pdf) (Accessed 15th January 2016).

Vaillancourt Y. (2009) Social economy in the co-construction of public policy. *Annals of Public and Cooperative Economics*. [Online] 80:2 2009 pp. 275–313. Available from: <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8292.2009.00387.x/abstract> (Accessed 15th January 2016).

Yunus, M., Moingeon, B., Lehmann-Ortega L. (2010) Building social business models: lessons from the Grameen experience. *Long Range Planning*. [Online] 43, 308-325. Available from: <http://www.sciencedirect.com/science/article/pii/S0024630109001290> (Accessed 15th January 2016).

### **Food waste**

Eqsphere – a collaborative web platform battling against (food) waste [Online] Available from: <http://eqsphere.com> (Accessed 15th January 2016).

Eggers W. D. (2013) *The Solution Revolution: How Business, Government, and Social Enterprises are Teaming up to Solve Society's Toughest Problems*, Harvard Business Press, Boston.

Davies, S. (2001) *Food choice in Europe: the consumer perspective*, In Frewer, L.J.; Risvik, E. and Schifferstein H. (Eds), *food, people and society*, (pp. 365-400) Berlin. Springer.

DEFRA (2011) *WR1403: Business Waste Prevention Evidence Review*, L1m1 Review Overview Report, London. [Online] Available from: <http://www.oakdenehollins.co.uk/media/WR1403/WR1403-L1-m1-Review-Overview-Report.pdf> (Accessed 15th January 2016).

Eisner S. (2013) *Social innovation and food waste management- a commercial proposition*, Presentation, OECD Food Chain Network. [Online] Available from: [http://www.oecd.org/site/agrfcn/Session%203\\_Simon%20Eisner.pdf](http://www.oecd.org/site/agrfcn/Session%203_Simon%20Eisner.pdf) (Accessed 15th January 2016).

Easteal S. (2013) How can social innovation help reduce food waste?. [Online] Available from: <http://www.eu-fusions.org/index.php/publications> (Accessed 15th January 2016).

Östergren K., Gustavsson J., Bos-Brouwers H., Timmermans T., Hansen O.J., Møller H., Anderson G., O'Connor C., Soethoudt H., Quested T., Easteal S., Politano A., Bellettato C., Canali M., Falasconi L., Gaiani S., Vittuari M., Schneider F., Moates G., Waldron K., Redlingshöfer B. (2014) *FUSIONS Definitional framework for food Waste*. [Online] Available from: <http://www.eu-fusions.org/index.php/publications> (Accessed 15th January 2016).

Canali M., Östergren K., Amani P., Aramyan L., Sijtsema S., Otso Korhonen O., Silvennoinen K., Moates G., Waldron K., O'Connor C. (2014), Drivers of current food waste generation, threats of future increase and opportunities for reduction. Available at: <http://www.eu-fusions.org/index.php/publications> (Accessed 15th January 2016).

Martindale W. (2010) *Food Supply Chain Innovations*, Sheffield Hallam University, Sheffield. [Online] Available from: <http://www.shu.ac.uk/assets/pdf/foodinnov-wm-food-supply-chain-innovations.pdf> (Accessed 15th January 2016).

Gustavsson, J., C. Cederberg, U. Sonesson, R. van Otterdijk, A. Meybeck (2011) *Global Food losses and waste. Extent, causes and prevention*, Swedish Institute for Food and Biotechnology (SIK), FAO, Rome. Available from: <http://www.fao.org/docrep/014/mb060e/mb060e.pdf> (Accessed 15th January 2016).

Parfitt, J., Barthel, M., Macnaughton, S. (2001) Food waste within food supply chains: Quantification and potential for change to 2050. *Philosophical Transactions of the Royal Society B*. Vol. 365: 3065–3081. Available from: <http://dx.doi.org/10.1098/rstb.2010.0126> (Accessed 15th January 2016).

Risso M. (2012) Exploring Partnership for Social Innovation. *Symphonya. Emerging Issues in Management*. Sheffield Hallam University n. 2, pp. 26-36. Available from: <http://dx.doi.org/10.4468/2012.2.03risso> (Accessed 15th January 2016).

Verain, M.C.D (2015) *Portraying the sustainable consumer: exploring sustainable food consumption using a lifestyle segmentation approach*. PhD thesis. Wageningen University Research, Wageningen, The Netherlands.

WRAP (2012) Household Food and Drink Waste in the United Kingdom 2012, Final Report, London. Available from: <http://www.wrap.org.uk/sites/files/wrap/hhfdw-2012-main.pdf> (Accessed 15th January 2016).

Policy options to stimulate social innovation initiatives addressing  
food waste prevention and reduction

Name Matteo Vittuari, Department of Agricultural and Food Sciences,  
University of Bologna  
Address Via Fanin 50, 40127, Bologna, Italy  
Phone +39 0512096161  
E-mail [matteo.vittuari@unibo.it](mailto:matteo.vittuari@unibo.it)

