Fostering Innovation to Address Social Challenges

WORKSHOP PROCEEDINGS

OECD *Innovation Strategy*

OECD

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Foreword

Innovation has long driven advances in productivity and economic growth. And while it is true that the contributions of innovation have not only been economic – innovations in industry have liberated workers from difficult and dangerous tasks through automation – it is also true that much of the thrust and focus of efforts to mobilise innovation have focused on economic objectives. However, this is changing as entrepreneurs, firms and public research actors recognise that modern economic growth must go hand in hand with societal progress.

Today's global challenges – from climate change to unemployment and poverty - are both economic and social. The recent economic crisis, which finds part of its roots in financial innovation, reminds us of the importance of mobilising science, technology and innovation (STI) not solely for generating economic benefits, but also for anticipating and responding to social problems.

This report – the result of two international workshops held under the auspices of the the OECD's Committee for Scientific and Technological Policy (CSTP) as part of the OECD Innovation Strategy – makes the case that the social-dimension is no longer peripheral to science, technology and innovation (STI), but a central factor for driving research funding decisions and shaping outcomes. Indeed, this is illustrated by the emergence of new actors who seek to mobilise STI to meet social demands in areas such as health, energy or the environment. The presentations by experts from a range of fields illustrate the potential to unleash innovation to address social challenges through new entrepreneurial and policy experiments. These examples highlight some of the implications for policy makers and make the case for new policies to enable innovation to support the creation of shared social and economic value.

The CSTP workshops and this publication would not have been possible without the support of leading institutions, namely the Japan Research Institute of Science and Technology for Society (RISTEX) part of the Japan Science and Technology Agency, Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT), the Research Council of Norway, the Interministerial Knowledge and Innovation Programme-Directorate in

The Netherlands, and the Centre for Technology and Society in Germany. Special mention should be made of the members of the CSTP Steering Group that organised the workshop, namely Yoko Nitta of the Japan Society for Technology, Research Institute of Science and Technology for Society (RISTEX); Yuko Harayama, Graduate School of Tohoku University and now Deputy Director, DSTI at the OECD, Elisabeth Gulbrandsen of the Research Council of Norway, Karen De Ruijter, Ministry of Economic Affairs in the Netherlands, Hans-Liudger Dienel of the Centre for Technology and Society in Germany as well as Jean-Claude Burgelman of the European Commission.

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EXECUTIVE SUMMARY

Innovation in the 21st century differs from the model embraced in the last century which was characterised as profit-oriented and nationally targeted. The underlying motive of innovation has been generating economic value. However, looking ahead to the society in the future, it is crucial to construct a new system that enables us to address social challenges through innovation by collaborating and acting globally. Thus there is a need to find ways to foster innovation which generates social and public value.

That innovation is already important to growth is highlighted by the conclusions of the 2010 OECD Ministerial Meeting below:

> 11.1 Innovation is a key source of long-term growth, both in traditional and high-growth, high-value added sectors. It can provide crucial contributions to higher productivity and confront global and social challenges. Therefore, we welcome the final report of the Innovation Strategy.
>
> 11.2 In recognizing that innovation is a broad phenomenon covering a wide range of activities

How should policy makers and other societal stakeholders act in this context? The challenges faced by modern economies urgently call for new forms of collective action between public and private stakeholders in order to better integrate social challenges into research and innovation. A new approach is necessary to solve problems where social and technological progress co-evolves in order to generate social and public value. Most societal challenges are multidisciplinary in nature, thus dialogue between the natural sciences and the social sciences is fundamental in this process.

Today's social challenges are numerous, complex, and urgent, from ageing societies, climate change, to energy efficiency and security. There is a wide consensus that the disconnection between economic growth and well-being is increasing. At the same time research and innovation have become one of the main engines of growth. However, these two overarching trends

have not yet been reconciled: there is a clear lack of exploitation of innovative solutions to address these social challenges. Failing to mobilise innovation to address some of the issues that affect populations at the global and local level has very high opportunity costs. Social innovation can be away to reconcile these two forces, bringing growth and social value at the same time.

To address these social challenges, the role of science and technology is critical as is taking a multidisciplinary approach that is dynamic and involves multilateral collaboration among different stakeholders. The presence of social entrepreneurs, new actors on the innovation scene are necessary to bring forth the social dimension.

This trend has been spreading globally and rapidly, which shifts our understanding of innovation, leading to a more balanced development path for growth and welfare. The recent economic crisis has made the need for innovation to address social challenges even more apparent and acute. It has raised debate and concern for a different approach towards achieving well-being. These trends cans be summarised as follows:

Innovation must be unleashed

A new code of conduct is emerging, based on collaboration, tolerance and respect of diversity, which ascertains the limits of market mechanisms based on free competition. It calls for an evolutionary approach to solve problems by applying science and technology while attaching importance to social and public value.

There are business opportunities and synergies to be exploited by better integrating social challenges at the core of innovation activities. Social challenges have a strong mobilising effect, which would allow unprecedented gathering of competences and resources, beyond institutions, sectors and disciplines boundaries.

Case-studies presented in the workshops highlight the following:

- Awareness of the scope of the social challenges and the background.
- Involvement of various stakeholders.
- Learning spaces where good future dialogues are held for stakeholders to interact and liaise
- Initial funding, maintenance of the research system and liking together the natural sciences and the social science.
- Citizen involvement and buy-in.

- The system of co-operation with local public entities and NGOs, etc.
- Applying systems and mechanisms from other areas and communities.
- Extracting good practice from model cases.
- Maintaining the research support system and building networks to address social challenges.

To this end, better linking science and technology policy together with other policies should be encouraged. The role of government is to act as a catalyst and enable change.

New forms of innovation

Innovation that aims directly to address social challenges must cope with specific barriers that cause under-investment and hinder their development and diffusion. Most of these barriers relate to the multidimensional and multistakeholder nature of social challenges.

- The traditional concepts and models of innovation are not adequate to understand socially-driven innovation. Social challenges address a variety of intertrelated issues, which are built upon yet unco-ordinated and dispersed bodies of knowledge.
  - Current indicators, such as GDP, do not reflect the growing importance of new social values such as well-being and sustainability and are unable to monitor and raise awareness on innovation to address social challenges. New indicators are needed to account for social values.
  - Innovation to address social challenges has a public good nature. Market processes and the "invisible hand" are, even more than in other innovation activities, inefficient to co-ordinate these innovation activities that aim directly to address social challenges. The prospects of large profits in the social area are limited which hinder incentives to invest and commit resources to these activities
  - The development and diffusion of social innovation faces the traditional and well-established frontiers between disciplines, sectors, as well jurisdictional boundaries in government and administrations.
  - Addressing social challenges through innovation requires the integration of competencies that are still to a large degree

disconnected, especially technological and non-technological competencies, as well as the natural and social sciences.

- Although the innovation process is now much more open and receptive to social influences, further progress calls for a greater involvement of stakeholders who can introduce the necessary capabilities and interests in research and innovation to address social challenges.

Policies need to reflect innovation as it occurs today

Meeting social challenges calls for innovative solutions at all levels, from the micro-level of individual action to macro systemic solutions. Public involvement has an essential role to play to initiate this paradigm shift and to integrate social value into incentives mechanism for innovation. Policy makers are asked to be innovative themselves to provide new support mechanisms and instruments.

The required characteristics of the new mode of public involvement are challenging: long term forward-looking intervention, inter-ministerial, demand-side instruments combined and co-ordinated with supply-side instruments, participative, and based on foresight.

Experimentation is underway. Implemented in different environment and toward various social challenges, it should pave the way for new modes of involvement which will enhance the policy maker's 'toolbox'.

A wealth of dispersed, uncoordinated, experiments involving various stakeholders in different learning spaces are already in place and provide key lessons on which to build future actions. Providing research funding and maintaining the research system as well as bringing together the natural sciences and the social science are essential. The aim of the two OECD workshops was to exchange and learn from these initiatives.

INTRODUCTION: TRANSFORMING INNOVATION TO ADDRESS SOCIAL CHALLENGES

Yuko Harayama
Deputy Director, Directorate for Science, Technology and Industry, OECD
and
Yoko Nitta
Associate Fellow Research Institute of Science and Technology for Society (RISTEX)
Japan Science and Technology Agency

Science, technology and innovation (STI) have long driven advances in productivity, and one cannot but notice that much of the thrust and efforts to mobilise STI for society have focused on economic objectives such as competitiveness and economic growth. However, the current economic crisis reminds us of the importance of mobilising STI not solely for generating economic benefits, but for anticipating and responding to societal needs. Therefore, it is opportune to look into ways to nurture scientific and technical "seeds" that may later bear fruit in addressing social challenges, but that may need more than the invisible hand of the market to begin flourishing. In order to explore these issues and provide practical recommendations, Japan as Lead Country assisted by CSTP Steering Group Members: the Netherlands, Norway, Germany and the EU decided to lead an OECD project to clarify concepts, assess social innovation needs and barriers and review a range of local and national initiatives to promote STI with a view to address social challenges (*e.g.* structures, means, incentive and reward systems, sets of actors, and ways of governance). The key milestones of this project were two *CSTP Workshops on Fostering Innovation to Address Social Challenges.*

A first CSTP Expert Workshop on Fostering Innovation to Address Social Challenges was held at the OECD in Paris on 25-26 May 2009. The aim was to assess the current understanding, as well as the opportunities and barriers, of innovation to address social challenges. Participants also discussed a number of recent initiatives and specific instruments that could enable governments and other stakeholders to address social challenges

through research and innovation. Following this first Workshop, limited to delegates and experts with relevant professional experience and/or academic expertise, a second larger Workshop was held at the OECD in Paris on 9-10 November 2009 to go deeper into the policy challenges and solutions so as to derive practical lessons for policy makers.

The rationales and opportunities to foster innovation to address social challenges

The growth of modern economic systems has generated more numerous, complex and urgent social challenges. Today, there is a growing consensus that the disconnection between economic growth and social welfare is increasing. Growth does not automatically lead to social welfare anymore, or not as much as it used to be under the previous growth regime. This results in the persistence of social challenges even in countries with significant economic growth and a growing social division between different population classes and countries.

However, social innovation is not only a constraint, it is also an opportunity. There are business opportunities and synergies to be exploited in better integrating social challenges at the core of innovation activities. Social challenges have a strong mobilizing effect, which would allow gathering of competences and resources, beyond sectors and disciplines boundaries.

The modes of knowledge production have already experienced considerable changes. It has been well documented that the innovation process is now less linear, more interactive, with a multitude of short-term and long-term feedback loops between the different stages of the innovation process. These feedback loops carry the different elements of social demand toward upstream stages (*e.g.* R&D). New collective experimentations involving multiple stakeholders, including users and concerned parties, have been developed. Although mainly restricted to information technology innovation activities, these initiatives are now spreading to other domains. The terms such as “user-induced” or “community-based” innovation now become widely used to define this tendency. Private and public actors have clearly understood that these social needs conveyed to the core of the innovation process add value to their product and services and are now acknowledged as competitive assets.

Box 1. The first step of the collective reflection: clarifying concepts

One of the first steps of the collective reflection in workshops has been to review the diverse definitions and understanding of concepts underlying innovation to address social challenges. "Social innovation**"** itself is manifold and its definition is hardly consolidated nowadays.

The most pervasive definition of social innovation encompasses to all social impacts of STI activities and progress. Indeed, regardless of their objectives, all STI activities have direct or indirect social impacts. Evaluations of research and innovation policies and programmes aim to assess these impacts, along other effects (scientific progress, economic and policy impacts). The significant methodological issues to be tackled as to best assess social impacts (imputation, timescale of effects,) are not the only limitations of this definition of social innovation. It is far too narrow as it relates to the understanding of social progress as an unintentional by-product - not as strategic driver - of STI activities.

A more comprehensive definition of social innovation is therefore needed. Social innovation refers to a group of strategies, concepts, ideas and organizational patterns with a view to expand and strengthen the role of civil society in response to the diversity of social needs (education, culture, health). The term covers, inter alia: new products and services, new organizational patterns (*e.g.* management methods, work organization), new institutional forms (*e.g.* mechanisms of power distribution by assignment, positive discrimination quotas), new roles and new functions, or new coordinating and governance mechanisms.

The OECD LEED Forum on Social Innovations has endeavoured to clarify the situation and provide a common understanding of innovation to address social challenges. The key principle of this definition is that social well-being is a goal, not a consequence. Thus, « *there is social innovation wherever new mechanisms and norms consolidate and improve the well-being of individuals, communities and territories in terms of social inclusion, creation of employment, quality of life* ».

Key actors in this early period where social innovation is still weakly institutionalised are so-called "social entrepreneurs". A social entrepreneur is someone who:

- Intends to create systemic changes and sustainable improvements with a view to sustain the impact.
- Assesses success in terms of the impact s/he has on society.
- Identifies a social challenge and has stepped up to make social change with social mission, to find innovative, immediate, small-scale and large-scale solutions that produce sweeping and long-term change, transforming the system, spreading the solution and persuading entire societies to take new leaps.
- Is encouraged to produce social impact with a selfless, entrepreneurial intelligence and innovative drive.
- Can simply manage to apply an existing idea in a new way or to a new situation, simply need to be creative in applying what others have invented (designed?). On the funding side, social entrepreneurs look for ways to ensure that their ventures will have access to resources as long as they are creating social value.
- Intends to provide real social improvements to their beneficiaries and communities, as well as attractive (social and/or financial) returns to their investors.

Challenges to overcome

Despite the current trend of a growing interest towards innovation as a means to solve social challenges, there are still a number of barriers to be overcome. These barriers stem from the very nature of social challenges and their specificities.

First, the traditional concepts and systems are not adequate to understand properly these activities. Addressing social challenges by means of innovation requires setting clear and agreed definitions and the creation of a new framework to better understand the changing nature of innovation and the multiplicity of economic, social and technical drivers.

Social innovations are by nature multidimensional insofar as a variety of issues are addressed as social challenges, which entails a significant degree of diversity in terms of knowledge basis in science and technology. The complexity derives from the wide scope covered by « social innovations », as social challenges are related to demographic changes, climate change, poverty, employment, health care, education, … The multidimensional package of existing social challenges and the systemic failure in fostering social innovation clearly call for a reform of the research and innovation system governance.

Social challenges are also multi stakeholders (*e.g.* universities, research institutes, private companies, government, civil society, citizens). This calls for more research activities on multidisciplinarity and promoting stakeholders' involvement, in particular by favouring the implementation process of research priorities (while avoiding lobbyism). To do so, the development of a new governance system, in particular participative tools aiming at facilitating partnerships, is still to be strengthened in order to be effective.

Moreover, new actors have emerged and challenge the current established innovation support institutions and instruments. These actors range from social entrepreneurs and enterprises to amateur scientists, International Organisations, NGOs and private foundations, and new ways to establish proper and fruitful cooperation between them have to be found. Their respective role in the social innovation system has to be reshaped so that they become an effective driving force of technical and social progresses. In particular, as a new actor, social entrepreneurship proves to be more and more essential to promote this trend but still have to be fully recognized and supported by governments.

Social challenges have a public-good nature. Market processes and the "invisible hand" are, even more than in other innovation activities, inefficient to coordinate these activities that directly address social challenges. Prospects of large profits in the social area are limited, which hinders incentives to invest and commit resources to these activities. As a consequence, specific processes and mechanisms should be specifically established to support innovation activities that aim to address social challenges.

The need for new modes of collective actions

These barriers result in governance and coordination inefficiency, lack of incentives to invest in social innovations, uncertainty, which hinder the development and dissemination of social innovation.

As social challenges are growing, the cost for failing to solve them is increasing dramatically. Innovative solutions to address these social challenges are clearly not adequately exploited. New solutions, new collective initiatives, new instruments as well as new modes of public supports and management are required to allow STI to address social challenges.

Although this trend is still nascent wealth of initiatives have already been experimented. A number of public agencies, research organisations and political institutions at all levels have carried out dedicated projects to promote STI to solve social problems. These pioneered experiences are still isolated and no coordinated efforts have been endeavoured to confront results and draw lessons from them.

Box 2. Definitions

Social innovation

Social Innovation refers to traditional innovation in terms of 'VALUE CREATION'.

Its ultimate goal is: not only create economic value but also enhance social institution.

Therefore. NPO, civil society are to be involved, which are rather low key in field of traditional innovation as 'Actor' in charge of leading innovation.

To this end, the rise of Social Entrepreneur who plays a role of leading to explosive diffusion is notable.

Social Innovation refers to new strategies, concepts, ideas and organizations that meet social needs of all kinds- from working conditions and education to community development and health- and that extend and strengthen civil society.

Alternatively, it refers to innovations which have a social purpose- like microcredit and distant leaning. The concept can also be a means of innovation and it also overlaps with innovation in public policy and governance.

Social innovation can take place within the government, within companies, or within the non-profit sector between the three sectors.

The different types of platforms need to facilitate such cross-sector collaborative social innovation.

Ministry and small public sectors will be asked to follow the road map;

How to survive and in this globalized society?

The prevailing of new concepts and new ideas plus new technology methods seeds for new values, which steers the change of whole society.

In this globalized age, we really have to compete and deliver the seeds of things to the marketplace. That requires social encouragement of entrepreneurial activities.

The essence of those entrepreneurs who changed the system of society that they are completely passionate to make society, world better.

How to provide stuff and service in what vision, what concept is crucial.

Normally, the economic meltdown is supposed to trigger the demand of radical change and it attributes the economy recovery. This wave contributes to the economic growth.

A proliferation of organizations working on the boundaries of research and practical action. Such currents have converged in this area including

Social Innovation refers to various waves of change which triggers the ripple effect as output of innovation.

Social challenges

The fact is that the environment surrounding our society is rapidly changing, not to mention the climate change, aging population, energy problems, or food crisis, and due to the evolution of our lifestyle, social structure and institutions are evolving.

Question is imposed. Is this adaptation moving towards “right” direction? What social value are we seeking today? How to balance these different pressures and constraints? Should our society seek for a new sustainability for its development?

Thus we face to social challenges ever more urgent and complex.

Given the limited resources and increasing pressure on cost control, it is crucial that new knowledge and talent be deployed and developed as efficiently as possible. We need to contemplate how to overcome Social Challenges by using knowledge and skills wisely.

We should also invest in research and development in a wide range of target areas. We should also exploit and promote innovative social entrepreneurship.

Also, we need to keep the quality of public services for citizens and entrepreneurs at a high level, in the light of the new environment, such as ageing population. The government needs to provide this quality by putting the needs of citizens and entrepreneurs first, by seeking effective collaboration with semi-public bodies and private parties and by allowing space for renewal and entrepreneurship.

Our most significant social challenges are resisting conventional approaches to solve them. We need to search for innovative measures of tackling these challenges.

Social entrepreneur

A social entrepreneur is someone who seeks to create systemic changes and sustainable improvements thinking about sustaining the impact, assesses success in terms of the impact s/he has on society.

Just as entrepreneurs change the face of business, social entrepreneurs act as the change agents for society, seizing opportunities others miss and improving systems, inventing new approaches, and creating solutions to change society for the better. While a business entrepreneur might create entirely new industries, a social entrepreneur comes up with new solutions to social problems and then implements them on a large scale. A social entrepreneur identifies a social challenge and has stepped up to make social change with social mission, to find innovative, immediate, small-scale and large-scale solutions that produce sweeping and long-term change, changing the system, spreading the solution and persuading entire societies to take new leaps He is being driven to produce social impact while employing a selfless, entrepreneurial intelligence and innovative drive, simply involving applying an existing idea in a new way or to a new situation, simply need to be creative in applying what others have invented. On the funding side, social entrepreneurs look for ways to assure that their ventures will have access to resources as long as they are creating social value. They seek to provide real social improvements to their beneficiaries and their communities, as well as attractive (social and/or financial) return to their investors.

CHAPTER 1
THE ESSENTIAL PERSPECTIVES OF INNOVATION: THE OECD LEED FORUM ON SOCIAL INNOVATIONS

Antonella Noya
Senior Policy Analyst, OECD/LEED

Introduction

This chapter presents the OECD Forum on Social Innovations (FSI), an innovative platform created by the OECD LEED Programme a decade ago, and highlights its main features, objectives and achievements, together with the definition of social innovation provided by the Forum. Some quick hints on the main purposes and impact of social innovation will pave the way for further discussions and analysis.

The OECD Forum on Social Innovations: a pioneering achievement

In 2000, the OECD LEED Programme[1] created a multi-stakeholder Forum - the Forum on Social Innovations (FSI)[2] - the main objective of which was to identify the most successful social innovations, facilitate international dissemination and transfer best policies and practices in social innovation.

Built around this principal objective, the FSI has more specific ones: the identification of key, locally-led social innovations; the review of available evaluation, evidence, and research studies to explore their strengths and

1. LEED's mission is to contribute to the creation of more and better jobs through effective policy implementation, innovative practices, stronger capacities and integrated strategies at a local level. Since 1982, LEED has advised governments and communities on how to adapt to global trends and tackle complex problems in a fast-changing world. It was created precisely to complement national responses to local economic crises. LEED leverages expertise from America, Australasia and Europe in expert task forces to provide rapid responses and targeted advice on specific economic and social issues. It draws on best policy and practices from more than 50 countries around the world.
www.oecd.org/department/0,3355,en_2649_34417_1_1_1_1_1,00.html

2. For detailed information see *www.oecd.org/cfe/leed/forum/socialinnovations*

weaknesses and transfer potential; the increase in external awareness and understanding of transferable policies and the promotion of their take-up, in a way which takes account of differing local contexts; and the reinforcement of international networks of policy makers and experts in this field.

Some eleven organisations from six countries signed the Charter of its establishment and agreed on a definition of social innovation which was then endorsed by the Directing Committee of the OECD Local Economic and Employment Development (LEED) Programme. This definition provides support for the Committee work of the Committee in this field.

This Forum, the first of its kind ever created inside an international organisation, has several interesting features: its multi-stakeholder nature; its balanced approach between a theoretical and practical dimension; and its international scope.

LEED's mission is to contribute to the creation of more and better jobs through effective policy implementation, innovative practices, stronger capacities and integrated strategies at a local level. Since 1982, LEED has advised governments and communities on how to adapt to global trends and tackle complex problem in a fast-changing world. It was created precisely to complement national responses to local economic crises. LEED leverages expertise from America, Australasia and Europe into expert task forces to provide rapid responses and targeted advice on specific economic and social issues. It draws on best policy and practices from more than 50 countries around the world.[3]

The first interesting feature of the FSI is undoubtedly the wide variety of actors who created it: public (at national and sub-national levels), private and also non-profit entities, who agreed to establish the Forum as a multi-stakeholder platform to share knowledge and to shape the policy agenda around social innovation. This bears witness to the fact that social innovation is a common concern for different actors and therefore not a "special mission" for one rather than another of them.

The second feature of the FSI is its twofold approach towards social innovation: it has been able to put together "the theory and the practice" and, in combining these two dimensions, has set social innovation in motion. In fact, while providing a working definition of social innovation (see below), it has, over the years, explored a wide set of social innovations (identified according to certain criteria[4]) in different geographical contexts. Social

3. *www.oecd.org/department/0,3355,en_2649_34417_1_1_1_1_1,00.html*

4. Local development activities which meet five main criteria: New actors, products, services, processes, Social impact, Territorial impact, Replication potential, Sustainability

innovation is, in fact, not only a relatively new concept which really needed to be defined when the FSI was created ten years ago, but also an evolving one, which must be explored and captured on the ground through the analysis of the many local initiatives which keep appearing.

The third feature of the FSI is its international scope, which has increased since its creation: originally conceived to facilitate the transatlantic exchange of social innovation, it later expanded to the South Pacific area and is currently targeting the BRICs.[5] Some of these countries are, in fact, very interesting social innovation laboratories.[6]

The OECD definition of social innovation

FSI's first achievement was the definition of social innovation. The FSI stakeholders, through a consultative process with international experts carrying out field analysis in several countries to identify its main features, agreed upon a working definition which was used to identify the different social innovations to be analysed within the Forum's framework. This definition was the first ever provided by an intergovernmental organisation and, more generally, amongst the first to be produced. Its elements have been taken into account by other, later definitions.

For the OECD, social innovation implies changes in concept, process or product, in organisation and in financing, and can deal with new stakeholder and territorial relationships:

> "Social innovation seeks new answers to social problems by: identifying and delivering new services that improve the quality of life of individuals and communities; identifying and implementing new labour market integration processes, new competencies, new jobs, and new forms of participation, as diverse elements that each contribute to improving the position of individuals in the workforce.
>
> Social innovations can therefore be seen as dealing with the welfare of individuals and communities, both as consumers and producers. The elements of this welfare are linked with their quality of life and activity. Wherever social innovations appear, they always bring about new references or processes.

5. Brazil, Russia, India and China.

6. For an interesting example of social innovation in Brazil, see Chapter 5 on social entrepreneurship and social innovation in "SMEs, Entrepreneurship and Innovation", OECD, (2010).

> Social innovation is distinct from economic innovation because it is not about introducing new types of production or exploiting new markets in themselves but is about satisfying new needs not provided for by the market (even if markets intervene later)[7] or creating new, more satisfactory ways of insertion in terms of giving people a place and a role in production.
>
> The key distinction is that social innovation deals with improving the welfare of individuals and communities through employment, consumption and/or participation, its expressed purpose being to provide solutions for individual and community problems." (OECD LEED Forum on Social Innovations *www.oecd.org/cfe/leed/forum/socialinnovations*)."

What is distinctive about this definition is that it clearly links social innovation to local development. Social innovation is, in fact, essentially seen as a way of improving the welfare of individuals and communities. Moreover, the definition makes explicit reference to the new relationship with territories as a social innovation feature. In spite of this reference to the local dimension, the so-called "global challenges" − even if not explicitly mentioned in the definition - are not excluded from the field of social innovation, the final aim of which is to provide social change for improving people's quality of life.

Why social innovation is needed and what it is changing

Social innovations are innovative responses to unsolved social problems and needs, which have not been successfully tackled by the State or the market. Social innovation is needed because many social challenges are resistant to conventional approaches to solving them. They require novel approaches, inventive actors and new forms of co-operation among them, thus bringing together different kinds of expertise, skills and tangible and intangible assets. *Social innovation's major aim is therefore to tackle complex social challenges* by providing innovative solutions.

Social innovations may be complex yet at the same time simple: sometimes new ideas just needed to be conceived! The whole idea of micro-finance, which is certainly one of the most well-known and successful social

7. The distinction between economic and social innovation made inside the definition seeks to make clear that the final goal of economic innovation is different from the main goal of social innovation that is the improvement of the quality of life of individuals and communities, which, on the contrary, is not the articulated goal of economic innovation. Social innovation is often the consequence of a market failure. If markets intervene later, this does not mean that the innovation is no longer social.

innovations, is a simple one - lending small amounts of money to poor people without demanding collaterals - but nobody had thought of it before Yunus.[8] The same applies to ideas such as that of social business (a well-known example is Grameen Danone Foods).[9] The concept is simple but its implementation requires innovative thinking and processes. It is the result of the hybridisation of different actors (in this case a joint venture between a community development bank and a large multinational) and approaches (the business approach used to meet social goals without personal enrichment).

Social innovation is addressing several challenges and having positive impacts. One of the most important is that of *contributing to the modernisation of public services*. Innovative actors, such as the so-called social enterprises[10], are doing so by delivering new welfare services at both national and local levels, often in partnership with the public sector. They are shaping new processes and services – a more tailored approach – thus enabling increased public sector efficiency. In addition, users are increasingly involved in the design of these services and user-driven social innovation is undoubtedly better suited to meeting user needs.

Social innovation is also directed at *producing social change***.** The change can be of different intensities: incremental or radical. Changes are incremental when they build on what already exists and are radical when they produce a total change compared to the past. Obviously not all social innovations can be radical and evidence shows that the majority of them are incremental.

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8. Mohammad Yunus, economist and Nobel Peace Prize, developed the concepts of microcredit and microfinance. He founded the Grameen Bank. In 2006, Yunus and the bank were jointly awarded the Nobel Peace Prize, "for their efforts to create economic and social development from below".

9. A social business is designed to address a social objective. The profits are used to expand the company's scope and improve the product/service. It is a no dividend company, in the sense that the investors/owners can gradually recoup the money invested, but cannot take any dividend beyond that point. The company must cover all costs and make revenue, at the same time achieving the social objective. Grameen Danone Foods, launched in 2006, provides daily healthy nutrition to low-income nutritionally-deprived populations in Bangladesh.

10. The OECD provided a definition of social enterprises in 1999. "Social enterprises are organisations taking different legal forms in different countries which are organised in an entrepreneurial spirit and pursue both social and economic goals."(p.9). Social enterprise refers to "any private activity conducted in the private 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, and which has the capacity for bringing innovative solutions to problems of social exclusion and unemployment" (p.10), OECD, (1999)

Where and how does social innovation happen?

Social innovation can take place everywhere, at national and local levels, but it does not simply "happen". It is the result of joint effort, creativity and a shared vision: that of a sustainable and people-oriented future. Social innovation is not one sector's monopoly. Some innovations appear in the public sector, others in the private sector and others again in the non-profit sector. Social innovations are sometimes absorbed by a sector different from the one in which they were created. For social innovation to proliferate, cross-pollination is needed; to spread and upscale social innovations, "bees and trees" are required.

The "bees" are …. "small organisations, individuals and groups who have new ideas and are mobile, quick and able to cross-pollinate to find big receptive 'trees', *i.e.* big organisations such as governments, companies or non-governmental organisations which are generally poor at creativity but good at implementation and have the resilience, roots and scale to make things happen. Much social change is a result of a combination of the two". (NESTA, 2007, p.3)

Connecting "bees" and "trees" is often a problem, which is why "intermediaries" are needed. There is, however, a notable absence of these and this is certainly an area to be addressed by policy makers.

Social innovation inside the OECD Forum on Social Innovations

Over the years, the FSI has explored many topics related to social innovation. The principal ones can be grouped into these main categories:

- Access to capital and changes in financing;
- employment, targeted insertion, delivery of social and community services;
- balanced growth approaches to development;
- social cohesion in the "New Economy";
- social enterprises and social entrepreneurship;
- corporate social responsibility;
- community capacity building;
- study visits, events, international conferences, and publications are the output of these activities.

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CHAPTER 2. FOUNDING "ELTERN-AG"- OUR EXPERIENCES AS SOCIAL ENTREPRENEURS

Meinrad M. Armbruster
Professor, University of Applied Sciences Magdeburg, Germany
and
Janet Thiemann
Eltern AG

Summary

The ELTERN-AG Project. The ELTERN-AG approach suggests that it is crucial to work with the parents of disadvantaged children as early as possible, because they most influence their children in the formative years before they enter school. According to these assumptions ELTERN-AG helps these children by making their parents a part of the solution rather than the problem.

The Method. The program contains a carefully developed training method, in which moderators focus first on the things that these parents do well, and let them learn from each others' successes. Trainers quickly involve the parents in running individual group sessions. Working with local partners, the moderators then link the parents into self-perpetuating community networks — which include doctors, schoolteachers, kindergartens, and childcare organizations. Thus the trainers help the target groups overcome their social isolation and improve their children's prospects. Evidentially ELTERN-AG succeeds in reaching poor, undereducated parents in depressed areas allowing parents to seek help and advice while avoiding the stigma of institutional welfare dependence.

Each school run a free, five-month program targeted specifically at parents with children aged zero to six. Most of the participants are single mothers. It is facilitated by two trained moderators and consists of twenty weekly sessions, each designed as a stand-alone module to accommodate parents who cannot attend every time. The approach understands that these sessions will not work unless they are informal and participatory and involve peer-to-peer learning rather than lectures from experts. Parents must feel that they are in charge of their lives, must experience some quick successes at home, and must not be made to feel inadequate or delinquent.

The Expansion Strategy. Thitherto, 80 mentors were trained in the ELTERN-AG method, resulting in 100 parenting schools in the state of Lower Saxony, a depressed region of Eastern Germany. In June of 2008 the approach has reached more than 650 parents and 1 500 children. The vision is to extend far beyond this initial pool of clients. The ELTERN-AG project has in 2009 begun spreading parenting schools along with networks throughout some of the most depressed regions of Germany.

The expansion strategy offers a social dissemination system that will allow a continuous growth of the ELTERN-AG program to other parts of Germany. Though his organization is currently financed primarily through grants from foundations and state health ministries, the ELTERN-AG team plans to rely more heavily on payments from its network of cooperating partners, which will draw their funding from youth authorities, health insurers, foundations, and the private sector. Toolkits for franchisees will cost roughly EUR 2 500 and will include mentoring training, training materials, supervision (especially in the early stages), and yearly evaluations and content updates. The expansion strategy, which comprises a 7-year-period, begins with a small diffusion rate, and follows a pyramid scheme. One of the most important steps towards expansion of the approach is the formation of a big number of new trainers (moderators). ELTERN-AG is launching this system first in the poorer states of Germany, where the need is most acute, and will then spread all over Germany.

The New Idea

In 2000, the important PISA-study of OECD counties found that in Germany, there is a very strong correlation between parents' class and educational background and the social position of their children. This finding sent shockwaves through Germany and shook the national myth of equal opportunity. While the official reaction was to focus on reforming curricula and the school system as a whole, a team of scientists and practitioners at the University of Applied Sciences Magdeburg (Germany), directed by the first author (Armbruster, 2004, 2006; Armbruster & Gröninger, 2005) began tackling the problem from a different angle: They believe it is crucial to work with the parents of disadvantaged children as early as possible, because they most influence their children in the formative years before they enter school.

Where others have failed, the so called ELTERN-AG approach succeeds in reaching poor, undereducated working class parents in depressed areas who have fallen through the German social safety net. The young creative team of investigators and social work students attract these parents (with children under seven-years-old) who are typically wary of state welfare

services, by offering peer-to-peer parenting support groups, by building ingenious local networks to refer and welcome young parents, and by offering tangible incentives to participate (such as free childcare). Their program, ELTERN-AG (parenting community), allows parents to seek help and advice while avoiding the stigma of institutional welfare dependence.

This community-based, self-help parenting training program empowers poor, isolated parents to form peer networks, to learn alternatives to domestic violence and neglect and to become loving, capable parents for their children. The team and the first author have carefully developed their training method, in which moderators focus first on the things that these parents do well, and let them learn from each others' successes. Trainers quickly involve the parents in running individual group sessions. Working with local partners, they then link the parents into self-perpetuating community networks — which include doctors, schoolteachers, kindergartens, and childcare organizations. The founders of ELTERN-AG thus help their target group overcome their social isolation and improve their children's prospects. The initiator of ELTERN-AG has begun spreading these networks — along with their parenting schools—throughout several of the most depressed regions of Eastern Germany.

The problem

The most important public study on educational systems, the Programme on International Student Assessment (PISA) conducted first by the OECD in 2000, ranked Germany in the bottom third of the thirty-two mainly OECD countries. This came as a shock to most Germans. Furthermore, the study showed that—contrary to what Germans assumed—there is a high correlation between socio-economic background, performance in school, and social standing later in life. Children born into the poorest, most depressed 25% of German counties (approximately 2 million) suffer pervasive disadvantages in their education and their later lives. ELTERN-AG research corroborated these findings: It found that the single most important determinant of a German child's success in school and beyond is the zip code into which that child is born.

The German state has reacted to the study by focusing on reforming school curricula and by launching extra classes in elementary schools and high schools for disadvantaged students. However, these programs have proven rather ineffective. By the time these children enter school at the age of six or seven, most of the damage has been done. Born to working class parents without much formal education, the children are exposed to a higher risk of violence and domestic conflict, drug abuse, parental neglect, and broken family relationships before they reach the age of six. By the time

they enter the school system, they have already fallen far behind. Later in life, they are much more prone to emotional instability, poor school performance, and family trouble.

Parents in these families, many of whom have experienced violence in their own lives, often lack the capacity for peaceful conflict resolution. They have great difficulty showing empathy toward their own children, and they have little confidence in their own parenting styles, which are often erratic. They feel shame and guilt about domestic problems, but do not know how to begin to fix them. This vicious cycle of neglect and deprivation is perpetuated from generation to generation.

The German government does offer parenting support services, but has developed a one-size-fits-all slate of professional seminars that are pitched to a middle-class, educated audience, conveying mostly academic knowledge and failing to reach deprived families. Poorer, less educated parents find these programs condescending and alienating, and see no tangible incentives to participate.

This problem is compounded by the fact that poor parents typically mistrust and fear existing social welfare institutions. They worry that social workers will intervene and take their children away from them. They also want to avoid the stigma associated with dependence on public welfare. So they are disposed to stay out of official welfare programs in education.

As a result, poor parents in depressed regions usually feel isolated with their domestic problems. They feel they cannot approach Kindergarten teachers or doctors for help. There exist no support networks or groups they can turn to for advice and society at-large blames them for the problem. Germany has recently experienced a spate of child deaths (from neglect) and incidents of child abuse, and the media reporting on these events invariably singles out low-income parents as the responsible parties.

The Strategy

The ELTERN-AG approach suggests that it is crucial to work with the parents of disadvantaged children as early as possible, because they most influence their children in the formative years before they enter school. The ELTERN-AG approach is a community-based, self-help parenting training program that empowers poor, isolated parents to form peer networks, to learn alternatives to domestic violence and neglect and to become loving, capable parents for their children.

Recognizing that the state's response to the PISA study was inadequate, the ELTERN-AG team started its own parenting school in 2004. They

understood that their first and most important challenge was simply to reach the key target group: Poor parents in depressed areas. The ELTERN-AG group of investigators and practitioners developed a recruiting strategy that has two important parts. First, their teams spend weeks getting to know the target neighbourhood and locating spots where parents congregate. They go to playgrounds, soccer matches, local clinics, and supermarkets. They find parents there and invite them to participate in events with other local parents—events such as barbecues, clown parties, bus trips, or simply shopping excursions to the second-hand clothes bazaar (mainly for mothers). They entice parents with the offer of free childcare during these events, where he gets to know them and invites them to participate in his program.

Second, the ELTERN-AG group develops a referral network in each neighbourhood. The network includes child doctors, midwives, day nurseries, kindergartens, youth and employment authorities, childcare organizations, and health insurance groups that have a local presence. These networks refer parents to his parenting schools and then work with parents who have come through his training program. Kindergartens and day nurseries, which are seriously affected by delinquent parenting, have become most involved, and have provided free space for many of his parenting school meetings.

The schools run a free, five-month program targeted specifically at parents with children aged zero to six. Most of the participants are single mothers. It is facilitated by two trained mentors and consists of twenty weekly sessions, each designed as a stand-alone module to accommodate parents who cannot attend every time. The ELTERN-AG team understands that these sessions will not work unless they are informal and participatory and involve peer-to-peer learning rather than lectures from experts. Parents must feel that they are in charge of their lives, must experience some quick successes at home, and must not be made to feel inadequate or delinquent.

The first author and his team have designed the training program in three phases. In the first phase, mentors or other trained parents discuss some basic problems and strategies in child education (for instance: How to deal with a defiant child). The group decides beforehand which problems it wants to address and collects “best practices” to resolve them. In the second half of this phase, parents take over the sessions and present to one another. The parents learn how to wind down—physically and emotionally—and be more calm and reflective about their parenting choices. The mentors teach exercises designed to reduce stress, and teach the importance of avoiding impulsive, angry decisions. The third phase is the most personal: Once trust has been established in the group, parents share their own recent parenting problems and explore solutions together.

The training schools have shown remarkable success. Three-fourths of the parents who become involved stay involved through the end. Sixty-five percent of the parents who complete the training sessions continue to meet informally with the other participants. The relationships and skills developed in the schools then spill over to other community activities. With the mentors' encouragement, many parents have gone on to initiate self-led workshops on relationships and marriage, unemployment, addiction, and other important topics. They also feel much more confident reaching out to local authorities, especially doctors and schoolteachers, to discuss their children's well-being. The first author conducted a study with a team of academic researchers (Armbruster 2006; Sodtke & Armbruster, 2007) that shows how the parents he reaches come to feel much more comfortable as parents, and that their children show demonstrably fewer learning disabilities and perform better in school. (Their development significantly outstrips that of other children whose parents did not participate in ELTERN-AG program.) These findings help the ELTERN-AG group significantly in their expansion and will open doors in other states, via other universities.

Up to 2009, the ELTERN-AG team has trained 80 mentors, resulting in 100 parenting schools in the state of Lower Saxony, a depressed region of Eastern Germany. It has reached about 1 000 parents and 2 500 children. The vision and strategy of the ELTERN-AG founders, however, extend far beyond this initial pool of clients. The members are launching a social franchise system that will allow the more rapid expansion of this program to other parts of Germany. Though their organization is currently financed primarily through grants from foundations and state health ministries, they plan to rely more heavily on payments from their network of franchisees, which will draw their funding from youth authorities, health insurers, foundations, and the private sector. Toolkits for franchisees will cost roughly EUR 2 500 and will include mentoring training, training materials, supervision (especially in the early stages), and yearly evaluations and content updates. The ELTERN-AG team is launching this system first in the poorer states of Eastern Germany, where the need is most acute, and will then spread into Western Germany.

The ELTERN-AG group is also planning to expand the slate of services offered, and to expand the target population to include children ages seven to sixteen. Understanding that their support to parents is limited in time and that his families need recurring encouragement to continue reaching out, the ELTERN-AG team plans to work with the German Midwives Association to tap into new volunteer networks. Interested citizens can become after-program mentors who accompany parents to school and interact with state

authorities until parents are familiar with the system and can continue on their own.

To change the very system of support offered to poor parents, the first author also works from the top down. Using his status as a Professor at the University Of Applied Sciences Of Magdeburg, he is creating the first university degree program in Germany that trains teachers in pedagogical strategies designed specifically to empower poor children and parents to take responsibility for their lives and decisions. Once in place, this program will create additional multipliers for his vision and strategy.

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CHAPTER 3. OECD WORKSHOP ON INNOVATION FOR SOCIAL CHALLENGES: LESSONS FROM THE UNITED KINGDOM

Laura Bunt
Policy Advisor, Public and Social Innovation
National Endowment for Science, Technology and the Arts (NESTA)

Introduction

This chapter presents the United Kingdom's National Endowment for Science, Technology and the Arts (NESTA) efforts to promote a range of innovators and include social innovators and entrepreneurs in tackling some of the most pressing global issues in different ways.[1]

The National Endowment for Science, Technology and the Arts (NESTA)

NESTA is the UK's largest endowment with a mission to transform the UK's capacity for innovation. We work across the private and public sector to understand how innovation happens and how to support it more effectively. NESTA researches and explores all of the different parts of the innovation system – from innovation capital and market incentives to knowledge creation and enterprise incubation.

NESTA's public and social innovation work ranges across developing and supporting social enterprises and new models of public service delivery, developing metrics and methods for social innovation and researching ways in which government can more effectively encourage and enable innovation. This is delivered by NESTA's Public Service Innovation Lab – a team of innovation experts working with partners to test and evaluate new approaches – where experiments inform our policy and research work which in turn advises government and other key decision makers.

1. For more information on NESTA and its activities, please see ***www.nesta.org.uk***

The case for social innovation

The UK, like many other countries, is facing big challenges both economically and socially. Across all areas of public services, global challenges such as climate change, an ageing population and the changing nature of public health are having a profound impact. Furthermore, the UK public sector is facing higher levels of debt than it's seen for a generation. With restricted budgets, public services are being forced to think about how to achieve much more for significantly less.

Innovation is critical in responding to these challenges now and in the future. But innovation needs to involve a wider range of actors and draw across a number of disciplines to respond to the complex, interdependent nature of social challenges. This reflects the emerging trend towards more 'open' and 'user-led' innovation in the private sector. Policymakers increasingly recognise this, but still struggle to stimulate and support more distributed innovation from local communities and individuals.

NESTA strongly believes that innovation holds the key to delivering the kind of public services we need now. Social innovation – engaging new actors, resources, systems and processes to create new social value – can generate new ways of delivering existing services and design different ones. Innovation with and by the users of public services can improve outcomes and ensure services are most efficient. A tighter focus on efficiency and budget control ought to drive innovation, as existing solutions are increasingly unsustainable.

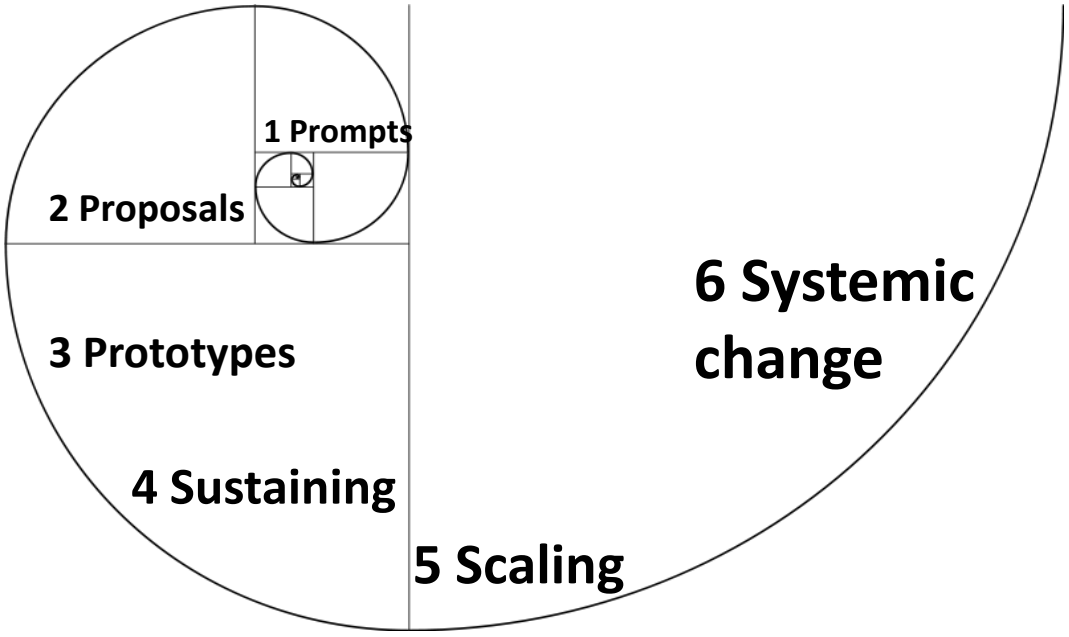
Social innovation in practice

> *"All innovation involves the application of new ideas – or the reapplication of old ideas in new ways – to devise better solutions to our needs. Innovation is invariably a cumulative, collaborative activity in which ideas are shared, tested, refined, developed and applied. Social innovation applies this thinking to social issues: education and health, issues of inequality and inclusion."*
>
> Charlie Leadbeater (2008) 'We Think'[2]

NESTA's work on social innovation – a substantial body of which was developed in partnership with the Young Foundation – understands that social innovation isn't always a linear process. Social innovations are constantly going through change and iteration.

2. Leadbeater, C. (2008) *We Think: Mass Innovation Not Mass Participation*. London: Profile Books.

Figure 1. The process of social innovation[3]



NESTA's Public Service Innovation Lab

NESTA aims to demonstrate how public and social innovation can not only deliver better outcomes, but can also do so at lower cost. The Public Services Innovation Lab works across a range of programmes, anchored by social challenges, and draws out practical lessons for policy makers, partner organisations and practitioners.

For example, the Big Green Challenge is a GBP 1 million open innovation challenge prize for communities to tackle climate change; Age Unlimited, NESTA's programme on ageing, works with people in their 50s to design new types of services for older people; our work on health looks to

3. Murray, M., Caulier-Grice, J., and Mulgan, G. (2010) *The Open Book of Social Innovation*. London: NESTA and the Young Foundation; part of the Social Innovator Series, see ***www.socialinnovator.info***

user-led innovation as a way to unleash more radically patient-centred care services and a social enterprise incubator to support new approaches to healthcare. NESTA's research work supports these practical interventions and builds on the research, examples and ideas from other organisations and individuals where innovation has transformed public services or helped to respond to social challenges.

NESTA's practical programmes and experiments inform and drive our policy and research work. The success of the Big Green Challenge for example – which solicited over 350 entries from community-based groups across the UK and delivered considerable reductions of CO2 emissions – demonstrated the potential of an approach we call 'Mass Localism', how government can support more widespread, local innovation and achieve impact at scale. We are testing the implications of this approach across a range of social challenge areas – improving public health, crime and anti-social behaviour and mental wellbeing.[4]

Going forward – transforming innovation

Our experience in understanding social issues tells us three things: firstly, they can't be resolved by technology alone; secondly, like the challenges, the solutions must also be social; thirdly, wherever possible they need to come from and be led by the public. Our work looks to the public as the users of services, the people with ideas, and the resources with the capacity for behaviour change.

NESTA's work going forward will focus on developing the infrastructure for social innovation – the financial architecture and methods for social innovation to grow and be strengthened as a field. The OECD partnerships and international network will be invaluable in sharing practice and developing the expertise in these areas at this critical time.

4. Bunt, L., and Harris, M. (2010), *Mass Localism: A Way to Help Small Communities to Solve Big Social Challenges*, London: NESTA.

CHAPTER 4. SOCIAL ENTREPRENEURS: VISIONS, IDEAS AND COLLABORATIONS

Christelle Van Ham
Ashoka Foundation

Introduction

I have had the chance to work for five years at Ashoka[1], the largest global network of innovative Social Entrepreneurs with systems changing ideas. Founded in 1981 in India, Ashoka now supports nearly 3 000 social innovators in 70 countries on all continents. This chapter summarizes some of what I have learnt by meeting and working with some of these outstanding Social Entrepreneurs on how they transform innovation to address social challenges and radically revolutionize our societies

In an ideal world, everybody would have an equal access to education and healthcare, opportunities on the job market, fair representation and rights in courts of law, just rewards for the same job, a safe environment and adequate support in difficult situations. But we are not in an ideal world. The challenges we face are countless, multiplying and made more complex by globalisation and a degrading environment. They are all the harder to resolve as they are systemically rooted and interconnected.

There is no need to say we call for groundbreaking innovations to address these social challenges. Many are hard at work and try to bring answers:

- Engineers develop new technologies with the potential to dramatically improve healthcare, connect and educate the most disadvantaged groups, give an equal voice to all.
- Businesses distribute these inventions, invest to create new products and services to satisfy global markets and create employment.
- Politicians create new frameworks and policies to (hopefully) serve their constituents, fix failing market and societal mechanisms.
- Researchers look at systems to identify the underlying scientific, sociological, economic, historical and political causes of current issues. They model mechanisms of what an ideal world could look like.

1. Ashoka : Innovators for the Public. More information at *www.ashoka.org*.

Even when these innovations are highly sophisticated and designed with the best intentions, they most often fail to transform into large-scale social impact. Ideas and actions need to be coordinated, synchronized and widely distributed to systematically uproot social issues. Too often, stakeholders work separately and/or against each other, hence limiting or annihilating their respective impact.

That is why Social Entrepreneurs are key to transform innovations into groundbreaking solutions. Social Entrepreneurs are men and women who tackle social challenges in entrepreneurial, systemic ways. Building upon a vision of "the world as it should be", they identify opportunities for interventions and change, apply their creativity and lift all the obstacles that may arise. Starting from the ground up, they mobilize citizens; find uses for technology to respond to concrete needs; collaborate with public institutions and shift political systems to create the right conditions for change; engage businesses and private investors in distributing their innovations; and work with researchers to prove and document their findings. All through their career, they catalyze innovation and accelerate transformation.

"There is nothing as powerful as a new idea in the hands of a Social Entrepreneur" (Bill Drayton, founder of Ashoka)

Since the late 1800s, competitive mechanisms have allowed for dramatic products and services innovations, increasing consumption and growing flows of capital into the business sector. Market incentives have encouraged and rewarded those who have been able to best understand and respond to the public's needs and tastes, and every year increasing numbers of products are brought to markets.

Such incentives do not traditionally exist in the social sector, where innovation has been much slower and scarcer. While the market economy has expanded hand in hand with democracy and increased investments in education and healthcare, the income gaps and power inequalities between the richest and the poorest, majorities and minorities, genders, countries keep growing. Markets and political mechanisms have generally failed to fill those gaps and even contributed to dig new ones, while charity and assistance have lifted the burden of the disempowered but not brought lasting solutions to their needs.

Yet some individuals have brought by groundbreaking innovations where markets and governments had failed and where charity was clearly not a sustainable solution. Some of these innovations have later been adopted and massively spread by lawmakers and market leaders. There have been Social Entrepreneurs throughout history: one thinks of Florence

Nightingale, a British Social Entrepreneur from the late 1800s who established the first schools of nursing and spread better hospital conditions that became international standards. In the middle of the 20th century, Vinoba Bhave, in India, founded and developed the Land Gift Movement that led to the redistribution of 7 million acres of land to Untouchables and Landless Indians.

More recently, the most famous Social Entrepreneur is probably Nobel Peace Prize Winner Muhammad Yunus[2], who with the Grameen Bank created microcredit. During the great Bangladeshi famine of the 1970s, he realized that the chronic poverty of rural populations was directly linked to their impossible access to capital, leading to a vicious cycle of low income, low savings and low investment. He developed the microcredit model to inject capital and allow for a higher income, savings, investment and an even higher income. Starting with a very small experiment in the village of Jobra making microloans to women producers of bamboo furniture, he demonstrated the possibility to generate a profit. He went on to secure funding with a bank and build a fully fledged "village bank" in 1983. As of July 2007, the Grameen Bank has issued USD 6.38 billion to USD 7.4 million borrowers, using a system of "Solidarity Groups" of co-guarantors to ensure repayment.

This model spread around the world. Muhammad Yunus then went on to launching numerous ventures with a positive social impact: fisheries, irrigation, clothing, etc. His Grameen Telecom has brought cell-phone ownership to 300 000 rural poor in 50 000 in Bangladesh. He is now also developing the Grameen University and branching out on joint ventures with large companies such as Danone.

Muhammad Yunus is the archetype of the Social Entrepreneur.

- Social Entrepreneurs are first defined by their **vision** of how society should look like and **unique insights and ideas** on how to make this vision possible. They find what is not working and solve the problem by changing the system, spreading the solution, and persuading entire societies to take new leaps. They are by definition innovators, as they pragmatically experiment with a clear set of problems and situations. They sometimes invent a new profession or a new field, like Florence Nightingale or Muhammad Yunus; other times they combine existing innovations and / or apply them to new populations and target groups. If their vision remains the same, their ideas may evolve as the needs

2. More information at *www.muhammadyunus.org*.

evolve and as their experiment demonstrate what changes and adjustments are necessary.

- Social Entrepreneurs are **creative entrepreneurs**: possessed by their vision, they apply their determination to build institutions and fields of work. They engage people across society, mobilize resources and will not rest before they have reached their goal. When faced with an obstacle or an unexpected situation, they come up with creative solutions and find new ways to succeed.

- Social Entrepreneurs are driven by a vision of **social impact**: unlike business entrepreneur, their motivation is not personal recognition or financial success. They are driven by a vision of a world where all have the same rights and opportunities and all are empowered to take charge of their own destiny. In other words, "They will not give a man a fish; they will not even teach them how to teach. But they will revolutionize the entire fishing industry." (Bill Drayton) The objective of a Social Entrepreneur is that their solution has no more need to exist when the system has fully shifted and the problem no longer exists.

In 1980, William Drayton had a new idea: in order to address social challenges, money and philanthropy, political action, lobbying and citizens' engagement in charity were not enough. What the world really needs is a critical mass of Social Entrepreneurs, coming up with groundbreaking ideas and bringing systemic innovations to scale, adapting their models to the constraints of a changing and contrasting reality. He founded Ashoka on the conviction that the social sector needed what venture capital had been to the business sector: flows of capital invested into emerging ideas that had the potential to revolutionize society, but only if they were carried by the right Social Entrepreneur.

Over the past three decades, the pace of social innovation has dramatically accelerated thanks to a growing consensus that governments and markets alone could not properly address social challenges. In Bangladesh, Danone collaborates with Muhammad Yunus's Grameen Bank to distribute locally produced enriched yoghurts to rural children. In the United Kingdom, the government has established rules to delegate public service to Social Entrepreneurs with the most effective model. In the United States of America, the Obama administration has created a Social Innovation Fund to invest in the most promising innovations of Social Entrepreneurs that have the potential to be scaled nationally.

Redefining the boundaries: interconnected social issues and shared responsibilities

Because they are driven by their vision and not by their selfish interest, Social Entrepreneurs have the ability to look at social problems from all angles and to apply systemic solutions. They push back the boundaries of the problem they want to address to ensure its effective eradication, and engage all the key stakeholders in their efforts.

Let us take the example of Jean-Michel Ricard and Jean-Daniel Muller, two French Social Entrepreneurs who founded SIEL Bleu in 1997.[3] Young sports teachers at the time, they realized that sport had a great potential to reduce health risk for the elderly. When doing a regular, adapted physical activity, older people would be able to keep stronger physical and cognitive abilities, avoid falling, and maintain social interactions: in a few words, they would have a much higher quality of life. They developed a vision of a world in which everybody over a certain age would be able to access adapted sports activities in retirement communities and at home, at an affordable price. In order to do so, they progressively built a network of 300 sports teachers who could provide these services, and today serve over 50 000 old people every week.

In order to do so, they looked at all the systemic reasons why old people do not do more sports and engaged all the necessary constituents to lift those barriers.

First, there was no medical and scientific evidence of the benefits of sports. SIEL Bleu works with INSERM (French National Institute for Science and Medical Research) who has been documenting their impact and publishing outstanding results.[4] With a regular physical activity after 60, the respiratory capacity increases by 30%. And if the risk of falling only decreases by 6%, the chances of hospitalization in case of a fall drop by 80%.

Another problem was the lack of awareness: older people were not aware of the benefits of sports and medical professionals tend to fear that sports may hurt rather than help. Thanks to solid scientific proof and a proactive communication, SIEL Bleu was able to engage doctors and medical professions in recommending and prescribing sports to their patients.

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3. More information at *www.sielbleu.org*.

4. Results published by INSERM accessible at *http://sielbleu.org/Espace_presse/Etudes/pdf/Synthèse%20rapport%20Inserm%20APA.pdf*

In addition, sports classes are expensive, especially taken individually at home. Ricard and Muller wanted to make the service accessible to all and realized that the financial beneficiaries of their work were truly the social security system and insurance companies. They hence calculated the cost savings incurred by adapted physical activity: 50 000 people in France break their neck of femur every year in France, for a total bill of EUR 6 billion. SIEL Bleu has hence convinced most insurance companies to partner with them and reimburse part of or the entire price of a physical activity class, giving access to the service to everyone.

In order to meet the demand and to ensure the quality of their service, SIEL Bleu has a strong need for trained physical activity teachers. Ricard and Muller worked with the University of Strasbourg to create a new degree for adapted sports teachers, guaranteeing the recognition of a new profession.

But Muller and Ricard did not stop there: they quickly realized that most chronic pains and diseases facing the elderly could have been avoided if they had practiced a relevant physical activity in their younger years. This was particularly true with populations holding physical jobs in sectors such as construction and factory lines. SIEL Bleu thus developed a service for companies to offer adapted physical activity on worksites: this service not only has a great impact on workers' health, but also yields great economic returns for employers thanks to avoided work accidents and improved staff retention rates. Companies such as Bouygues Construction now offer these classes on all their construction sites.

Always striving to expand their impact, Ricard and Muller are currently extending their physical activity offer to populations with cognitive disorders, chronic and degenerative diseases. They are also working with adapted technology, to use digital images and video games as well as adapted sports equipment.

One can see that Ricard and Muller have gone way beyond traditional entrepreneurship: they could have provided sports classes to the elderly who could afford it and used traditional distribution mechanism. Driven by a vision for societal change, they have creatively collaborated across sectors and populations to dramatically increase their impact and reach the largest numbers. They work with government agencies, universities, companies and individuals to make this change possible. They are also expanding their reach to other European countries (Ireland, Brazil, etc.)

Social Entrepreneurs tend to blurry the boundaries between sectors of interventions and target markets, as a social challenge does not stop where another one begins.

To correct an earlier insight, Drayton was quoted saying: "The only thing more powerful than a new idea in the hands of a Social Entrepreneur is a new idea in the hands of several Social Entrepreneurs".

More and more often, thanks to new technologies and opportunities for collaborations, Social Entrepreneurs are combining models to offer integrated social value chains and address all the needs of a given population; or to expand their reach across regions.

They are also more aggressively partnering with businesses, which have the channels and the capitals to rapidly and effectively bring their models to scale. The multiplication of these hybrid value chains is true in all sectors and particularly dramatic in developing countries, where companies want to crack the emerging markets of the millions of poor Social Entrepreneurs are serving. The collaboration between Muhammad Yunus and Danone is a perfect example of a hybrid value chain in the food industry. Others are working on new models for housing, irrigation, farming and healthcare.

Conclusion: preparing an "Everyone a Changemaker[5]" Society

Social Entrepreneurs demonstrate that social change is not about social innovation: it is about their ability to identify the causes of social challenges, to mobilize key stakeholder groups to systematically address them, to implement and sustain empowerment models, to continuously deepen and expand their impact and to lift the institutional and economic barriers to their success.

Innovators in all sectors play a key role to infuse new ideas and collaborate with Social Entrepreneurs, as they hold pieces of solutions to systemic problems. To address social challenges, we hence need to connect innovators and Social Entrepreneurs through ***new platforms of communication and collaboration***.

The Internet has opened an avenue for social networks and these virtual platforms are multiplying, which incentivize collaborations between Social Entrepreneurs and across sectors, pool resources and attract capital to Social Entrepreneurs. Changemakers, Global Giving, Idealist, Donorschoose.org or even the pages of Facebook are mere examples of a global phenomenon.

In parallel, new models of physical interactions between Social Entrepreneurs and changemakers from other fields are arising: old conference models are replaced by collaborative spaces allowing participants to build new

5. "Everyone a Changemaker" is the registered tagline of Ashoka.

solutions and create synergies for actions. They translate in a physical way what online collaborative spaces do virtually.[6]

The world also needs more Social Entrepreneurs and innovators with the right tools and visions to address social challenges. To prepare this new generation, we need to ***transform education*** and start at a very early age.

It is demonstrated that Social Entrepreneurs have in a vast majority of cases been through a transformative experience in their young years: most of them have started a social or business venture when they were very young and / or successfully developed creative solutions to problems they had witnessed. These experiences have generally allowed them to develop the necessary creativity, empathy and ability to work in teams; and to acquire the confidence that they could be effective agents of change.

We need more and more young people to develop these skills so that in the future our societies will be able to count on a critical mass of people able to take charge of social challenges.

Social Entrepreneurs have clearly seen this opportunities and organizations such as Ashoka's Youth Venture[7], Do Something[8], TakingITGlobal[9] or the School for Social Entrepreneurs[10] are working to empower young people and allow them to create these transformative experiences. Increasing numbers of leading universities are offering programs in Social Entrepreneurship to train the next generation of Social Entrepreneurs and managers who will be able to bring these changes to scale (INSEAD[11], NYU[12], Stanford[13] to name a few).

We are currently in a critical time: as the pace of global changes and challenges is accelerating, so must be the democratisation of power and social engagement. Large-scale investments have to reinforce the right collaborative platforms for innovators and Social Entrepreneurs, and to invest in new forms of entrepreneurial and societal education.

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6. Example of new modes of collaboration: UnConference model, described at *www.unconference.net/*; Evolutionize It!, described at *http://evolutionizeit.blogspot.com/p/about-evolutionize-it.html#h_520#p_home*
7. *www.youthventure.org*
8. *www.dosomething.org*
9. *www.tigweb.org*
10. *www.sse.org.uk*
11. INSEAD Social Entrepreneurship Programme, *http://executive.education.insead.edu/social-entrepreneurship*
12. NYU Catherine B. Reynolds Program for Social Entrepreneurship, *www.nyu.edu/reynolds*
13. Stanford Center for Social Innovation, *http://csi.gsb.stanford.edu*

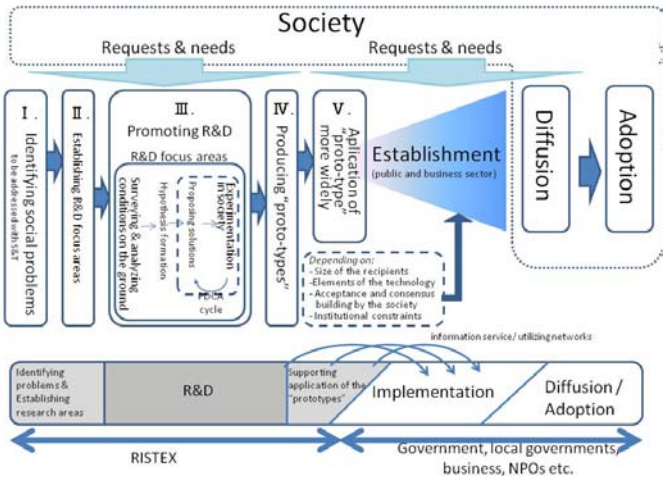
CHAPTER 5. A METHOD THAT GOES BEYOND "GOOD PRACTICES": A CASE OF RISTEX

Sawako Shigeto
Research Institute of Science and Technology for Society (RISTEX),
Japan Science and Technology Agency (JST)

About RISTEX

The Research Institute of Science and Technology for Society (RISTEX) is a part of Japan Science and Technology Agency (JST) that primarily functions as a funding agency for science and technology development. At the 1999 World Conference on Science in Budapest, jointly hosted by UNESCO and the International Council for Science (ICSU), the principle of "science in society and science for society" was declared as the role of science in the 21st century. RISTEX was established following the principles of the declaration. RISTEX supports Research and Development (R&D) through a cycle of activities from identifying social problems (I), establishing R&D focus areas (II), promoting R&D (III), producing and experimenting with "proto-types" (IV) and assisting the application of "proto-types" to wider areas (V) as seen in Figure 1.

Figure 1. Relationship between RISTEX's activities and implementation in society



The R&D Area for tackling with climate change and environmental degradation

A number of problems nowadays we face in terms of our sustainability (*i.e.* loss of bio-diversity, climate change, municipal and industrial waste overflow, fuel price volatility, deterioration of local economy and depopulation and so on) are techno-social problems, and complexly but closely interacting. These problems are the result of extremely rapid and worldwide modernization of mass production and consumption that is too much dependent on the exploitable petroleum supply particularly after WWII. Technology development is an essential factor for the solution, but for example, with regard to GHGs (Green House Gases) reduction, even if a technical scenario promises an excellent GHGs reduction, it would not be achieved within the required time if the socio-economic scenario related to for example legal controls and development of administrative systems and business models should not be reorganized with sufficient speed. Thus, technology would finally bring solutions to society only when it becomes a part of social system. In this context, technologies for problem solving do not necessarily have to be new and frontier but existing ones having the socio-economic aspects to meet social needs 'appropriately'.

Similar to other OECD member countries, Japan has a number of research funds to science and technology development for tackling climate change and environment degradation. While those often focus on new and frontier technology development, the RISTEX's R&D Area, Community-Based Actions against Global Warming and Environmental Degradation (FY2008-2013) aims to develop and demonstrate novel approaches with "appropriate" technologies to 80% GHGs reduction by 2050 in the combination of technical scenario and socio-economic scenario for climate change and environmental solution with the quantitative evidence. Although "appropriate technologies" are normally described as simple technologies suitable for developing countries or less developed rural areas in developed countries, here we regard as technologies that contribute not only climate change and environmental degradation but also to regional sustainability by utilizing local mass, energy and human resources.

Reflecting our mission of the Area, the R&D project proposal is requested to be novel in their approach for tackling climate change and environmental degradation issues; in their approach for tackling problems at the regional level with people; in quantifying the expected effect; in developing regional independence with effective collaboration with a variety of stakeholders and local actors; in collaboration with researchers from both natural and social sciences sharing a unified goal and methodology, and practices "in the field". The importance of collaboration among stakeholders

and researchers both in social science and natural science has been gradually recognized.

The management

Figure 2 shows the basic Area management framework that RISTEX designs. Each R&D Area invites applications that have a clear social mission of regional problem solving connected with CO2 emission reduction and a clear prospect of how to cooperate with a variety of local actors: university researchers, government, public-profit corporations, schools, industry, NPOs etc. Among the applications from the public, R&D projects are selected by the Area management team which is consisted of Area Director and Area Advisors who are specialists in a variety of areas and sectors related to the Area's mission.

The Area management team has more frequent dialogues with the selected projects than the ordinal R&D of public funds to monitor the R&D progress and the effectiveness of the collaboration among groups and members within the project. Through the dialogues and visiting the project fields, the Area management team shares the challenge of each project and gives advices and supports as appropriate. However, the discontinuity of the project could be decided even in the middle of the project period if the Area management team judges that the project would not bring the significant outcome to achieve the Area's mission or not have enough interaction to share a unified goal, methodology and practices in the field among a variety of groups and members.

In June 2010 ten R&D projects were in being implemented across Japan (see Figure 3). They are working on the Area's mission coupled with a various regional challenges such as housing issues, forest devastation, marketing and retailing, finance and emission transaction, natural regeneration, regional economy, rural development and so on.

A project example

One of the R&D projects, "From forest to houses co-realization of carbon abatement and comfortable life to 2050" (FY2009-2013), is the project that has a prospect of social innovation through the collaboration between social entrepreneurs and researchers.

Figure 2. The RISTEX's basic Area management framework

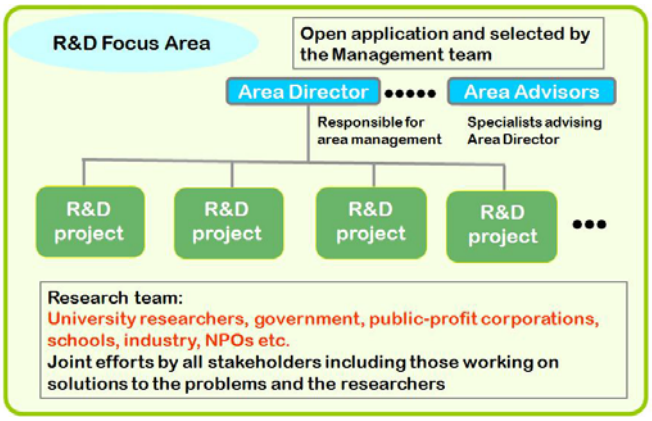
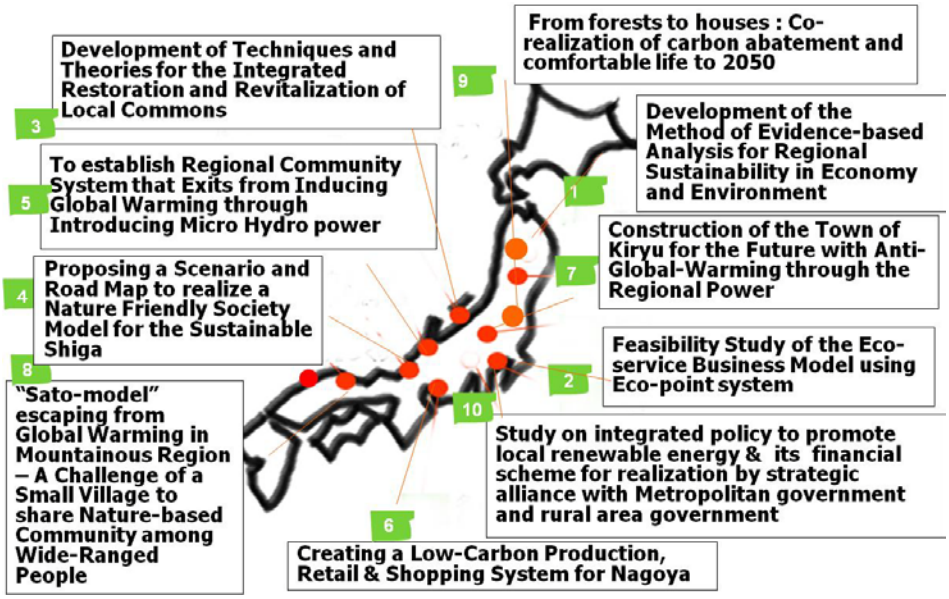
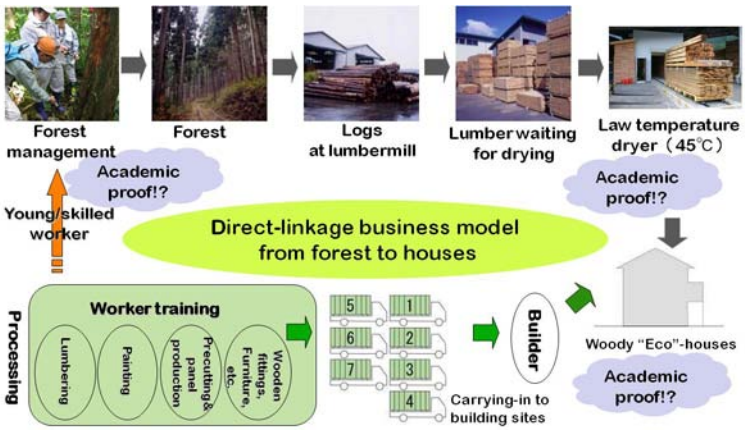


Figure 3. The map of R&D Projects currently selected (in June 2010)



About 67% of land in Japan is forest, but Japan highly relies on artificial and imported materials for housing construction. Forestry is used to be important industry in hilly and mountainous areas, but now forest industry has severely declined due to the reliance on imported woods and artificial materials. As the result, forest has been seriously devastated. Revitalization of domestic forest industry is a crucial issue in Japan, as well as restoring devastated forest in the last several decades and ensuring carbon uptakes. "Tennen Jutaku", which means 'houses made of natural materials' is a social enterprise that has a direct-linkage business model from forest to houses. Not only supplying domestically produced woody-"eco" houses, they are putting the supporting system to connect supply and demand including forester and builder training and financial system into practice (see Figure 4). Applying the system that is empirically good, they have already established a position in the limited housing market for serious health problem such as allergy and chemical sensitivity. However, to go beyond just 'a good practice' in the limited market and to restore the disconnected relations between forest and houses, they teamed up with practitioners and academic researchers as a R&D project.

Figure 4. A project example: the direct-linkage business model from forest to houses



While each team conducts its R&D activities dealing with the topic of forest management, wood processing, quality of houses and systems for woody houses dissemination and forest and forestry restoration, the project takes an open roundtable discussion approach that stakeholders sit on the same table and work together for sharing problems and discussing the solutions so that the social benefit of the direct-linkage business model from forest to houses is widely recognized and disseminated.

Since this is a case of the collaboration between social entrepreneurs with a clear social mission and academic researchers, they have already had a clue to go beyond just a 'good practice'. However, there were also projects having little prospect of the social system reform through R&D practices.

Our challenges

As a project management, we are carrying out two task forces, the "Joint task force of battery-type regional transportation" and the "Joint task force for regional application of renewable energy", composed by several related R&D projects, external experts and practitioners to have a breakthrough toward social system reform.

The "Task force for regional utilization of distributed power supply" targets dissemination of micro hydro power and other distributed power. In Japan, particularly mountainous area, water is plenty and the potential should be high. But it is currently limited use because of, for example, legislative restrictions, the cost and conflicts of interests at the ground level. Although there are a number of people and entities who want to apply micro hydro power, existing manuals tend to be technical and not to be accessible for non-experts. As one of strategies to diffuse widely micro hydro power system, therefore, we published a manual which is practical and accessible in light of guiding where and how we can implement micro hydro and the effective utilization of local knowledge and human resources.

The "Task force of battery-based regional transportation" currently targets dissemination of electric community buses and battery assisted trains. These potential is high, but it is not diffused at the practical level because of, for example, a belief for high-tech vehicles, legislative restrictions, the cost and the insufficient battery and charging system. However these aspects are raised only when we regard electric vehicles as alternatives of the current gasoline vehicles. For bringing socio-economic impacts, we target niche market of vehicle, and are under development of a low priced electric community bus and a service system package for local and rural communities.

Concluding remarks

RISTEX aims to invite research applications that have clear social missions and clear ideas of how to cooperate with a variety of local actors, local government officers and researchers. While RISTEX guides a basic principle of Area management system (*i.e.* Figure 2), the details are designed under the Area director's responsibility.

The R&D Area of "Community Based Actions against Global Warming and Environmental Degradation" expects projects to develop and demonstrate novel approaches with "appropriate" technologies to 80% GHGs reduction by 2050 in the combination of technical scenario and socio-economic scenario for climate change and environmental solution with the quantitative evidence. For bringing effective social impacts to reform the oil-dependent social system through the R&D projects, the Area management team also makes efforts to extend the cooperation network to external experts and practitioners.

Our challenge is still quite unique in Japan in terms of R&D in science and technology for solving the specific problems in the society, and we are still on the trial and error process of R&D research management. However, the importance of our challenges has been gradually recognized because we have faced the reality that there have been piles of funded demonstration experiments but little local and nation-wide practical use so far.

CHAPTER 6. ADDRESSING SOCIAL CHALLENGES THROUGH INNOVATION: THE CASE OF FINLAND

Robert Arnkil
Work Research Centre, Tampere University, Finland
and Arnkil Dialogues

Introduction

Together with the colleagues I have experimented with dialogue methods for several years in different countries and contexts ranging from front line customer work to management and governance on the strategic level (Arnkil 2008).

In this chapter I describe a special method and arrangement to promote dialogue in multi-stakeholder settings, which I have developed with my colleagues over the years, called Good Future Dialogue. The distinctive feature of Good Future Dialogues is that instead of making an anticipation from now – to the future, in an ordinary linear fashion, a "leap" to the future is made by imagining that we have transported, say, two-three years ahead. Further, it is assumed, that considerable progress in the matter at hand, like cooperation in innovation, has been made from each and every ones' distinctive viewpoint. Then the task, in the dialogue, is just to "remember" what has happened, and to start reconstructing the steps towards the solutions. When a group of people reveal to each other what they remember about the future, it becomes a powerful learning and border spanning experience.

1. Transformations in innovation policies

The need to promote dialogue is highly relevant for the challenges of innovation. Innovation policies have recently been confronted by a multitude of pressures to change. Some of these originate from external developments, some from internal policy issues. National responses to the challenges include both structural and behavioural renewals in innovation policies. The reforms have also their local and regional consequences. An overall development trend is that the dominant innovation policy model, based on linear view and focusing on science push/supply driven high-tech policy, is enhanced and complemented by a new broader approach than

before. Some have called this new emergent approach as broad-based innovation policy (Edquist et al. 2009. The broad-based approach means that also non-technological innovations, such as service innovations and creative sectors are becoming more attractive as innovation policy targets. In addition the notion of innovation is no more restricted to activities carried out by businesses. Broad-based innovation policy can be extended to encompass wider societal benefits and measures targeted to support service innovation in the public service production. One thing which also broadens the innovation policy activities is shift of focus from the specialisation and narrow spearheads of innovation to a variety of decentralised, horizontal and functional measures supporting innovation activities on a broader base and more comprehensively.

This new innovation policy approach includes also a general shift from planning oriented policies focusing on innovation inputs towards a more flexible, enterprise oriented policies focusing on market developments. This has meant a transition from policy models looking for general 'best practices' towards more customised policies and policies supporting the development of in-house competencies, both in private enterprises and public organisations.

New broader innovation approach also takes into consideration that both demand and supply side factors influence the way innovations emerge and diffuse on the markets and within the wider society. The need for user-oriented innovation in addition to demand-oriented is recognized. The users and user communities are seen increasingly important for business success and development for commercially successful innovations. User-oriented innovation perspective is considered important also in the public sector where it is believed to support the renewal of public services.

A shift from a relatively narrow and supply oriented innovation policy to a more broad-based one is a tremendous change in many respects. It necessitates a development and implementation of totally new policy instruments and methods to address new connections to stakeholders and actors. This means also transformations in the interfaces, in the "meeting points" of the actors.

One strand of such transformation is to promote dialogue between the different actors. This calls for good methods and skills to facilitate dialogue. Meetings, forums and workshops tend to run as very traditional and linear monologues. In the following I will present an example of transforming interfaces between actors by using Good Future Dialogue in running workshops.

2. Transforming communication: Good future dialogue in practice

The distinctive feature of Good Future Dialogues is that instead of making an anticipation from now – to the future, in an ordinary linear fashion, a "leap" to the future is made by imagining that we have transported, say, two years ahead. Further, we assume that considerable progress in the matter at hand, like cooperation in innovation, has been made from each and every ones' distinctive viewpoint.

Then the task, in the dialogue, is just to "remember" what has happened, and to start reconstructing the steps towards the solutions. This 'remembering' in Good Future Dialogue is promoted by facilitation.

The role of the facilitator is to ask certain questions from the stakeholders present, representing different perspectives, "voices", to the topic at hand. What those voices are, depends on the topic and the aims of the workshop. Facilitation is used because polyphony, listening and democratic use of time are sought after. This is particularly important in promoting new, open and broad-based innovation.

The use of an outside facilitator brings in a neutral, calming, suspending element, which is important in the face of complexity of the issue, actor and time.

The event is arranged around listening to "voices", which are important in relation to the topic. 3-7 persons are chosen to represent each voice and the facilitator interviews them individually while the audience listens. So talking and listening is separated in order to enhance listening and inner dialogue, following the ideas of Bakhtin (2002). The task of the facilitator is to help the voice articulate itself, to be heard.

The facilitator tells that in some strange way we are transported to the future, say, two years ahead, and positive things have happened in the issue at hand, like getting actors involved in innovation. How far the leap is made in time, depends on the issue and many other factors. The Good Future Dialogue does not attempt to be futuristic, or utopian, so a leap of ten years might be too much.

The facilitator asks three basic questions from the voices:

1. Now that we are in the future, and things in innovation have, from your viewpoint, progressed positively, *what are you particularly happy about*?
2. What did you *personally do* to help this positive outcome materialise, and who were your *key partners* in achieving this?

3. Were you *worried* about something two years ago, and what helped to *alleviate* those worries?

The questions explore the perception of the future, the subjective commitment and position, the network (partners) and worries (obstacles) of the interviewee.

The task of the facilitator is *only* to ask questions, not to give advice. S(he) only makes small follow-up questions, and sometimes slightly rephrases the words of the respondent, trying to get an as concrete answer as possible, using questions like "could you be more specific?", "what did you actually do?", "when did this happen?". Interviewing a voice with around 5 representatives in this manner takes about an hour, so in a day, with reactions from the audience, and with breaks, maximum of about 5 voices can be heard in one day. Endless variations are of course possible from this basic design.

The facilitator asks, the voices respond, others listen. The listeners are having an inner dialogue with the respondent and with themselves. Instead of preparing for a comment (and not listening) they are free to reflect. They are suspending their judgement, an important factor to facilitate dialogue emphasised in the dialogue discourse. In remembering the future, the respondents are telling miniature stories about the(ir) future. Telling and listening stories is a natural, resonating way for people to communicate, and can be helpful in dealing with complexity, as pointed out by Denning (2001) and Weick (1995). In between the voices the floor is opened for the audience to share what they "remember about the future". So "dialogue is realised in the overall running and structure of the workshop.

The dialogue starts with an assumption that good things have happened. This is following the cue of solution oriented and family therapy (de Schazer 1988) that starting from a (positive) solution and optimism helps to tackle the obstacles and anxieties later, and to avoid regression at the very start. In the face of complex, and controversial challenges, like innovation, there is a definite danger of regressing into a "problem-mode", or "who-is wisest", which would stifle communication and creativity, especially concerning newcomers, like customers and citizens in the broader approach to innovation.

The aim in the Good Future Dialogue is to reach a positive and creative platform in the dialogue, so that the inevitable problems and obstacles in reaching the positive outcome could be better negotiated and tolerated. The make-believe of moving into the future elicits creativity and imagination. It also invariably elicits humour, when people struggle to "remember" what

they have done, and help each other in doing this. This creates a friendly ambience, reinforcing dialogue.

Notes are taken from the dialogue, and, with identification of voices and themes, given to all participants as feedback, and used in the (possible) succession of workshops, to provide a backdrop for reflection.

To some extent Future Dialogue resembles "futuring" (Cornish 2005) but it is not "predicting" the future, or extrapolation from well known facts and knowing exactly how to deal with the situation. As Tsoukas (2005) points out, in situations where there is a high level of knowledge for anticipating events, and a ready "stock of knowledge" to draw on for undertaking action, we can use forecasting, and then make a plan to realise it. Future Dialogue is more useful in diffuse and open situations. The emphasis is not on forecasting, but building social capital and exploring possibilities for joint action.

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CHAPTER 7. SPANNING BOUNDARIES: SOCIAL INNOVATION IN A COMPLEX WORLD

Dr Philip Goodwin[1]
Chief Executive, Tree Aid
(formerly Global Head, Creative and Knowledge Economy Programme, British Council)

The rise of uncertainty

The challenges facing society are increasingly complex and intractable. This is the nature of a globalised world in which connectedness "scales up" the problems we face and at the same time obscures the levers that we can pull to change the course of events in a positive way. The multifarious and often obscure relationships between cause and effect and the fact that local happenings seem to be shaped by forces and events occurring many miles away, creates a heightened sense of uncontrollability.

This overwhelming feeling of uncertainty is increased by what is happening around knowledge. The authority of science and of expertise more widely, has been undermined by growing public awareness of the contingent nature of scientific truth. This is highlighted in everyday life by claims and counter-claims from scientists and experts on a whole range of issues. As Giddens (1990) points out, in these circumstances, scientific truth no longer equals certainty since we can never be sure which element of that knowledge will be revised in the light of new "facts". Instead, "reliable' knowledge (the hallmark of science) is being superseded by socially robust knowledge. In the eyes of many scientists, the social space in which this transformation is taking place is most notable for the public contestation of science. But it is, in fact, a result of co-evolutionary trends that mark both knowledge production and socio-economic change.

1. Tree Aid is a UK-based charity supporting families and communities in Africa's dry lands to tackle poverty and protect their environment using trees. The views expressed in this piece are those of the author.

The blurring of boundaries in knowledge production and consumption

It is a strange contradiction, that whilst "expertise" has never been either as widespread or in such demand as today, public willingness to challenge that expertise has also never been as high (Nowotny 1999). In the light of the overwhelming uncertainty described above, people seem to want to develop a new sense of assurance based in part on a re-appropriation of knowledge in the social sphere. In short, they want to have a say in what knowledge is generated and how it is understood and applied.

This trend is enhanced by the increasing co modification of everyday life where public thirst for innovation around consumption is unprecedented. People want what they want, exactly how they want it. They are increasingly demanding and discriminating. In the higher income economies, this seems to be as true for consumption of public as much as private goods. As a result, the boundary between experts and the wider public has become blurred whenever one speaks of users and producers of knowledge (Nowotny, 1999). Increasingly, the interaction between experts and public is considered an important precondition for technological and social innovations to occur.

So what we might call the "customer" for knowledge is increasingly moving from being a passive recipient of innovation to active in the demands they make of it. At its most extreme, the "customer" is increasingly a supplier of innovation through all kinds of participatory frameworks. What is being created is a new public space where science and society, the market and politics, co-mingle. More and more, the desires of both consumers and citizens are articulated here alongside the voice of expertise.

Spanning boundaries – dealing with "wicked" problems

But it is not just public demand or the co modification of everyday life that makes the blurring of these boundaries so important. In Rittel and Webber's (1973) terminology – many of societies' problems are no longer "tame" – to be solved by hierarchical or technocratic models of leadership, management or knowledge creation. Instead they are "wicked", requiring knowledge and action to be developed across boundaries of culture, discipline, sector and business model.

In defying hierarchy, "wicked" problems require a model of leadership and conditions for collaboration that develop solutions not based simply in the lab, in the company research and development department, or in the policy think tank but which are socially reflexive and negotiated in the public space.

As Keith Grint (2010) highlights, a wicked problem "cannot simply be removed from its environment, solved and returned without affecting the environment. Moreover, there is no clear relationship between cause and effect". Such problems actively require new approaches to find solutions. It requires the art of engaging communities in facing up to complex collective problems through collaborative processes (Grint 2010).

Such overwhelming complexity involves bringing together not just the public sector and government but also increasingly, business and the non-profit sector to find solutions. There are many different approaches to generating such cross community, collaboration (see, for example, Nambisan 2009 on exploration, experimentation and execution). A critical requirement, however, is the ability to span boundaries both horizontally – across disciplines, sectors, communities and countries - and vertically – across hierarchies, bringing together establishment actors with non-establishment and emergent players.

Spanning boundaries – generic principles, diverse tools

Essentially, this is a cultural interaction that seeks to integrate perspectives and voices – up, down and across – transcending boundaries in the pursuit of a way forward.

Institutionally, there are at least three critical factors necessary to lead or facilitate this process:

- an understanding of the many actors involved and mechanisms to uncover or reveal those actors who are not readily identifiable;
- an institutional framework that has the convening authority to bring together networks or create networks across the relevant "communities";
- the establishment of credibility, legitimacy and trust as conditions for that convening authority.

This is a tall order. Not many institutions have this kind of convening authority either locally or nationally and certainly not internationally.

There are many tools to promote collaboration, dialogue and action across boundaries. While given the new insights they generate, the diversity of tools is welcome, and I would suggest a set of generalised principles against which their effectiveness can be tested.

To work productively across boundaries, individuals, organisations and institutions need tools that:

- Develop self-awareness of their own operating culture and an awareness of where that culture sits within other cultures.
- Build capacity to operate across cultures.
- Move from dialogue and discourse into action.

Furthermore, I believe that the following conditions are necessary for spanning boundaries effectively:

- There must be a willingness and intent to work with and embrace difference.
- There must be the possibility for influence and change from all actors.
- There must be an awareness of dependencies and inequalities in the interaction across boundaries and an attempt to mitigate against those dependencies and inequalities.

But where is the consensus? Redefining social problems

The blurring of boundaries between expertise and the wider public and between leaders and "followers", leads not only to new approaches to existing problems but often, through the process of collaboration, leads to a redefinition of the problems themselves. For policymakers, experts and leaders, this makes social innovation particularly "messy" and uncontrollable and can therefore, be difficult to accept. Policymakers might legitimately ask – Who is making the decision? How do we reach a consensus?

As I explored in my work on environmental policy in the UK (Goodwin 1998, 1999) policymakers and experts are faced with a dilemma. Whilst on the one hand, engagement and collaboration may for them mean a loss of control, on the other hand, a refusal to allow social innovation to redefine the nature of the problem they face, creates a credibility gap as other social actors realise that their voice is being ignored or marginalised in the process. Policy is then both incompletely defined and / or difficult to apply as social actors refuse to be co-opted to deliver an expertly-defined problem.

Given the complexity and intractability of many of the issues we face, whilst we might possibly be able to reach a consensus on the step change required to address the problem, the breakthrough in solving it can only be defined two or three steps ahead. In a world of complexity, uncertainty and rapid change, we have to live with never quite seeing the solution in its

totality but instead seek reassurance in our ability to build processes that deliver adaptability, flexibility and trust in the face of the unknown.

Increasingly, the legitimacy of institutions (global, national and local) and the legitimacy of the solutions they generate through social innovation come not simply from the process of deliberation but explicitly from the institutional commitment and openness to difference and from their ability to reflect upon their own objectives, strategies and institutional form in the light of that commitment.

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CHAPTER 8. THE ROLE OF BUSINESS ACTOR FOR SOCIAL INNOVATION FROM CSR PERSPECTIVES

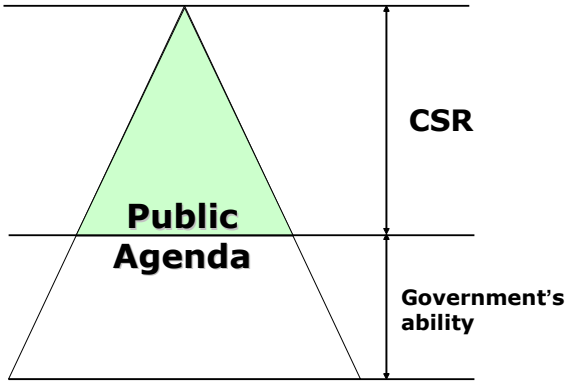
Daisuke Shintani
Mitsui Global Strategic Studies Institute (MGSSI)

In this capitalist world, the corporation has become an influential actor in society. Its impacts reach not only to business field, but also economic and social development. The power of MNCs (Multinational Corporations) especially is sometimes superior to the economic scale of one country, so that we should consider their role. One role is economic aspect, their products and services may contribute people's life comfortable and useful. Furthermore, their business activities sometimes may lead to industrial innovation. The other side of it is social impact. Their innovative products and services can resolve various social issues. But on the other hand, they often lead to various social issues, like environmental pollution, human rights violation, etc. Therefore, it's so important to know how big their influence from both positive and negative aspects is, and what the role of corporations for economic and social development is. And each corporation should integrate them into their own business activities. This is the way for CSR.

Concept of CSR

How can each corporation recognize their roles and make the concrete approach of CSR? I indicate one of the conceptual formulas to understand CSR well. *"CSR=Public Policy Agenda – Ability of Government"*.

Figure 1. CSR=Public Policy Agenda – Ability of Government



(Source) T.Fujii & D.Shintani, *Asian CSR and Japanese CSR*, JUSE-press, 2008

Until now, it has been thought that main actor to tackle with social issues is government. The role of corporations on public agenda was what they can make only through business activities, like tax payment, or producing employment. Otherwise, they sometimes contributed to donate to NGOs tackling with social issues. But now, the world has been globalized, and corporations have been obliged to globalize. Many corporations invested to developing countries, to seek new market or to develop manufacturing factory by using low-cost labours. This means that the range of public agenda for corporations expanded, and the meaning of CSR changes globally and dynamically.

Together with Mr. Toshihiko Fujii from METI[1] I have proposed one concept on CSR in our book[2]. CSR is the area of public agenda that can't approach by government due to limitation of their management ability, including human and financial capital issue. Corporations should cope with that area of social issues, if not, it will come to be difficult to sustain and develop their own business. If government can afford to tackle with many social issues, corporations operating in such countries, like developed countries, they doesn't have to think about MDGs issues like hunger, infectious disease or poverty. But if they engage in developing countries having these fatal issues, they have a responsibility to cope with these issues to do their business sustainable. And the approaches of that are mainly two ways, one is philanthropic, like donation to NGOs, the other way is through

1. Ministry of Economy, Trade and Industry of Japan.

2. Toshihiko Fujii & Daisuke Shintani, *Asian CSR and Japanese CSR*, JUSE-press, 2008.

innovative businesses, collaborating strategically with various stakeholders like international organizations, NGOs, rural communities, etc.

Journey to Sustainability

It is not so easy that corporations recognize their responsibility, and start making sustainable business to address social challenges. I describe the process to the goal for sustainability.

Way for social challenge by business

Level	Process	Business Ways & Tools
1	Multi-Stakeholder Communication	Communication(with NGOs, Labor Union, Coomunity leader, University, Government, etc.)
2	Educating to all employees about sustainability	CSR Training, Sustainability Workshop, Volunteer Program
3	Identifying the agenda you tackle with	Making the target to lead the industry, Introducing new green technology
4	Integrating into every process of business	New Environmental Business, BOP Business, Cause Marketing
5	Sharing experinces with society	CSR Training for SMEs/NGOs, Collaborate with Public Sector(Government, International Organization)
6	Scaling out the Social Impact	Enlarge the scale, Extend the new area of business

Business Cases

TOYOTA; Hybrid Synergy Drive System

SUMITOMO CHEMICAL; Olyset Net (Mosquito Net with insecticide against Malaria)

JAHDS (Japan Alliance for Humanitarian Demining Service); Technical Network by corporations

DAICHI; Making culture of organic foods, Environmental Awareness

Business Roles at Social Challenge

The role of corporation will change according to the circumstances. But now, corporation should use their power to address social challenges because of their magnitude of influence. I can conclude the role of business actors by three keywords.

1. Leadership

The company leading industry like TOYOTA can involve more companies in same industry like Hybrid Synergy Drive System, and if business sector can collaborate with other sectors, it can be influence on various aspects.

2. Sustainability

This means both making business sustainable, and the sustainability for environment and society by CSR.

3. Scalability

Influential corporations like MNCs can especially lead to enlarge social impacts to change society. For example, the impact of social entrepreneur's activity is not so big generally, but by collaborating with business sector, they can make impact bigger through business sector's network.

CHAPTER 9. COUNTIRES APPROACHES & INNOVATION POLICIES TO ADDRESS SOCIAL CHALLENGES: OPPORTUNITIES AND BARRIERS

Pieter Waasdorp
Deputy Director
Inter-ministerial Knowledge and Innovation Directorate, The Netherlands
and
Karen de Ruijter
Programme Manager, Societal Innovation Agendas
Inter-ministerial Knowledge and Innovation Directorate, The Netherlands

Introduction

In 2007 the Dutch Cabinet started the government programme, entitled *"Nederland Ondernemend Innovatieland"* (Netherlands: land of entrepreneurship and innovation). This programme combines solving social issues with strengthening economic competitiveness by encouraging innovation. By investing in projects that promote education, research and entrepreneurship.

Opportunities

In the past, social and economic objectives were sometimes in direct conflict with each other. Dutch government sees opportunities in combining these objectives. A healthy business sector and good business climate contribute to both future welfare and innovative solutions to social problems. Solutions for the protection from rising sea levels, for better healthcare and for a cleaner environment in turn offer businesses innovation and significant export opportunities. And, as commissioner Máire Geoghegan-Quinn stressed recently: "This is a clear win-win situation: new technologies, services and products and approaches are needed to meet Europe's major societal challenges, and their development will open up new markets for business".

More and more it is recognized that government cannot solve these major social challenges on its own. It calls for a joint approach on the part of government, knowledge institutes, the business sector and citizens. It also calls for an interdepartmental approach by government bodies. In 2007 an inter-ministerial Knowledge and Innovation directorate has been launched by a then new government. In this directorate ten ministries work together under the political responsibility of the Minister of Economic Affairs. One

of the main concerns of this directorate is the so-called societal innovation agenda.

Box 1. Societal Innovation Agendas

Within the project NOI, the former Dutch cabinet has started Societal Innovation Agenda's. These agenda's combine the enhancement of economic strengths and the solving of societal challenges.

We face a growing number of societal issues. How do we deal with the rising and changing demand for healthcare? How do we prevent our country from flooding in times of climate change? How do we strengthen our country against organized crime and terrorism? And how do we keep our educational system sharp to ensure a workforce adequately equipped for our knowledge economy?

Knowledge, entrepreneurship and innovation can make major contributions to solving these challenges. Until now economic and societal ambitions have too much been perceived as separate tracks. This cabinet wanted to link these worlds. Solving societal issues is not exclusively a governmental task. A growing number of other actors are being involved in thinking up and developing solutions. Universities, knowledge institutes, businesses, social organisations and also citizens; together we can tackle these challenges. And by connecting to scientific and economic strengths we kill two birds with one stone.

Some aims of the Societal Innovation Agenda's are: to focus knowledge residing at universities and knowledge institutes on societal issues, challenge businesses to contribute their expertise to finding solutions, taking care of legislation and other obstructions that impede innovation, setting examples within sectors and between sectors, and making way for experiments. These and other measures are being implemented in the innovation programmes.

Barriers

How can we meet both societal challenges and strengthen the economy? There are limits to the already well-trodden routes in both the economic and social arenas. With current levels of growth in productivity in the public, semi-public and private sectors, meeting every challenge will be a very costly and virtually infeasible mission. The challenge for government lies in doing more with less, and in a smarter and cleaner way.

Sustainable growth in productivity is obtained as a result of a more efficient and effective use of labour and financial resources for exploiting economic opportunities and meeting social challenges. If we are able to achieve sustainable growth in productivity, then this will be visible not only

in terms of economic growth figures, but also in the quality of our society. Three factors play a significant role in enhancing the innovative capacity of societal sectors: talent, public and private research and innovative entrepreneurship. These factors also feature prominently on the European Union's agenda.

When we started the societal innovation agendas in the Netherlands, we faced barriers in the innovation system that might hinder innovation to successfully address societal challenges. The main barriers were: insufficient cooperation between stakeholders; fragmented knowledge transfer policies; and insufficient expertise regarding support of (social) entrepreneurship in the (semi)public sector.

Insufficient cooperation and networking between stakeholders

Innovation for social challenges clearly involves a wider set of stakeholders in the process of generation of ideas, application and diffusion. One thing is for sure, solving complex social problems by knowledge and innovation, is no longer a task of government alone, but more and more a result of cooperation between all parties in society. This stresses the importance of cooperation and networking between stakeholders.

However, this cooperation does not appear automatically. One of the reasons might be that researchers and entrepreneurs do not know each other. This seems even more true for knowledge and innovation for social challenges. Poor demand articulation by social and business community might be a problem, but also weak incentives at knowledge institutes to take into account the social impact of their research. So, important questions are: How to involve business and non business agents in innovation projects addressing social challenges? Which mechanism could help the public sector to target stakeholders which normally are not included in the policy definition project?

For innovation to successfully address social challenges the importance of (new) partnerships and (new) stakeholders cannot be overrated. This has been one of the core concerns of the Dutch approach: connecting networks, crossing (sector) boundaries, searching for new and surprising combinations.

Fragmented knowledge transfer policies

Public and private research also makes an essential contribution to the solution to social challenges. Research currently underway at universities is creating breakthroughs in healthcare and security. Application-based research is being carried out at colleges of higher education, for example for

the purpose of putting technological and non-technological innovations into practice. Businesses, too, are engaged in research and development that is making a substantial contribution to social challenges - a case in point is the boom being experienced in the field of energy-saving technology.

However, improvement is necessary in exploiting knowledge for the economy and society. Insufficient use of research is still being made by companies and the public sector. Although the quality of Dutch research is among the best in the world, the Netherlands lag behind when it comes to actually applying it. Again, interaction between knowledge institutes, businesses and public sector organisations should be improved to allow greater exchange of knowledge and more collaboration in the development of new applications and products.

The production of knowledge and certainly the exploitation of it into economic and social relevant products and services is a question of collaboration between knowledge institutes, businesses and public organisations. Only when the exploitation of knowledge actually produces a return for researchers and entrepreneurs will there be sufficient incentive for valorisation. It is about finding the right balance between incentives for excellence in scientific performance and the dissemination of knowledge.

Insufficient expertise: regarding support of (social) entrepreneurship.

Entrepreneurship makes a valuable contribution to the growth of productivity and the power of innovation in the Netherlands. Entrepreneurs act as change agents and translate new discoveries and inventions into new products and services. Entrepreneurs seek new possibilities and make new combinations. Entrepreneurs are the drivers of change. Entrepreneurs are in an ideal position to help find solutions to social challenges, through creative and innovative products and ideas. Such challenges include a cleaner environment and more security on the streets (smart cameras). In public and semi-public sectors, too, like healthcare and education, innovative entrepreneurship is needed in order to ensure that economic and social objectives can be attained smartly and efficiently.

However, there are still impediments for innovative entrepreneurship in the public and semi-public sectors. The degree to which companies wish to innovate depends very much on the demand for innovation. In the public sectors especially, markets are either absent or not sufficiently developed. Here, policy development and market development may very well go hand in hand. For example the role of government itself in public procurement acting as a launching customer may stimulate innovative entrepreneurship.

Strategies

Which forms of policies could support innovation to address social challenges? Would we need different innovation governance? Or is the regular one in need of adjustment to respond to new developments?

Innovation to address social challenges is an emerging area where further work is needed to identify, among other issues: how to address social challenges in the frame of S&T&I policies while preserving the necessary freedom in the search for novelty of firms and research labs? How to capture the interest of relevant stakeholders for identifying social priorities? What is the institutional infrastructure which could better support this effort? Are inter-ministerial committees in a better position to coordinate the design and implementation of innovation policies for social challenges?

The complex matter of addressing social challenges by innovation asks for new forms of cooperation between different worlds. It asks for open interaction between government, industry, knowledge institutes and social organisations. The interaction between supply and demand is of great importance to define good policy. And to find out what is the real social challenge, what is needed to solve it, what are opportunities and threats, what knowledge already exists and why is it not being used yet, who is most capable for developing the knowledge and how do we make sure the knowledge developed is also being used (valorisation)? Or usable, coming out of productive interactions between "science and society"? As for 'old' forms of innovation, innovation to address social challenges cannot be based on a linear innovation process alone. It is the interaction between different partners that define the success of the approach. With regard to the above mentioned barriers, important policy challenges are:

- develop an integral approach on scientific, social and economic challenges;
- deploy consistent valorisation policy;
- fostering innovative entrepreneurship;
- seek new arrangements for cooperation;
- focus on the role of government in acting as a launching customer;
- find the right incentives for all stakeholders to participate and contribute.

We need innovations in the field of technology, in working methods, rules and conduct. This calls for a joint approach on the part of government, knowledge institutes, the business sector and citizens. It also calls for an interdepartmental approach by government bodies, as socially based tasks often overlap through different government departments and layers of administration. An innovative, enterprise-friendly government is another requirement – one that not only supports innovations in every possible way, but also innovates itself.

CHAPTER 10. PUBLIC PARTICIPATION PROCEDURES IN GERMAN INNOVATION POLICY: AN OVERVIEW

Hans-Liudger Dienel
Zentrum Technik und Gesellschaft, Berlin University of Technology

1. Public Participation for Innovation Policy?

The two OECD Workshops on transforming innovations to address social challenges aimed at nothing less than a fundamental change in innovation policy concerning aims, fields and citizen's involvement in innovation. Social challenges now play a role in defining goals and thematic fields for innovation. Innovations, which address social challenges might not be limited to technological innovations.

In the past, innovation Policy in most OECD countries has focussed on technological innovation. The conferences challenged this limitation by including on the one hand social innovations and social entrepreneurs into a modern innovation policy, and on the other hand dialog processes to give societal stakeholders the possibility to contribute to the definition, selection and prioritisation of thematic fields of innovation.

Many OECD countries have in recent years started dialogue processes to involve citizens in innovation policy. These dialogue processes generally draw on the experiences of participative deliberative democracy and use deliberative tools. Therefore, it makes sense to have a look on a couple of important deliberative methods, which are used for explorative or collective binding decision making.

When innovations shall meet social demands, one has to understand social demands. Public participation is the political involvement of citizens in public decision-making on different levels, from local, regional, national even to supranational level.

In this chapter, we analyse various forms of direct and deliberative democracy in order to assess their applicability for a participative innovation policy. Only for pragmatic reasons we focus on Germany. In next steps, it would be necessary to compare experiences with different participative tools in different countries. The broader concept of public involvement, alongside public participation in politics in the narrower sense, also encompasses

public interest oriented, voluntary engagement by citizens. Although public interest oriented involvement mostly entails a degree of political influence, that is by no means the main objective and often influence is not exerted directly on the political system in the narrower sense.

Within public participation we can distinguish between formal and informal procedures. *Formal procedures* are direct democratic public participation procedures enshrined in law, for example, petitions for referenda and referenda proper. In the early days of the Federal Republic of Germany, a parliamentary democracy since 1949, direct democratic public participation had relatively little scope or tradition. The situation was very different in smaller Switzerland, where direct democracy has been practiced for a century in the form of frequent referenda. In Germany formal procedures at Federal level were not envisaged at all, with the exception of the reorganization of the *Länder*. The reason for such caution in relation to the citizenry is simple: the begetters of the Basic Law (the German Constitution) were sceptical of their fellow citizens' aptitude for direct democracy in light of experiences of mass hysteria under the Weimar Republic and the Nazis. At the *Land* level – Germany is a federal state with, currently, 16 relatively autonomous *Länder* with their own prime ministers – things were very different (see Tables 1 and 2). In many *Länder*, and increasingly over the decades, there have been both petitions for referenda and actual referenda, and at municipal level even more often so-called citizens' initiatives and local referendums (*Bürgerentscheid*) . Generally speaking, it's fair to say that over the last 20 years formal direct democratic procedures have increased in frequency and importance. Petitions and referenda are closely related here. A petition is always the first step, the first hurdle that has to be cleared to bring about a referendum or citizens' decision, in many cases counter to the established parliamentary majority. Besides direct democratic procedures, however, there is a whole series of formal procedures of public participation, in particular at municipal level. We shall say more about these in due course.

Besides the formal procedures just mentioned, there is a broad palette of *informal procedures*. This encompasses a wide variety of procedures mostly of deliberative – that is, consultative – public participation that are not enshrined in law, but, particularly at municipal level, play a much greater role. These informal procedures include, for example, the Planning Cells/Citizens' Reports described elsewhere in this volume, Future Workshops, Citizens' Panels, and many others. When Chancellor Willy Brand declared, when the first Social Democratic government came to power in 1969, "we want to dare more democracy," he meant first and foremost this broad extension of informal democratic participation at all levels. At that time, to be sure, there was already an established form of

informal participation involving civic associations, primarily associations of bourgeois at municipal level. From the late 1960s onwards, however, this form of consultative, constructive, politically rather conservative, though certainly civil participation was superseded by a new generation that understood public participation rather as opposition to the prevailing system. This extra parliamentary opposition took the form, at local level, of a plethora of citizens' initiatives against state and commercial projects, in particular in the area of transport and urban planning, as well as against environmental pollution. By virtue of this broad movement, which has prevented many outsized planning projects in Germany, public participation remains associated with delay and prevention. The development of deliberative democratic procedures was a response to this, proposing and trying out new methods for solving problems constructively that now wanted "to dare more constructive democracy." Before we proceed to examine a number of important individual procedures, let us take another look at the development of formal and informal public participation in *Länder* and municipalities.

2. Formal Public Participation at Federal State (*Land*) Level

As procedures of direct democracy, petitions for referenda and referenda proper are enshrined in law at federal-state (*Land*) level. Regulation is not uniform, however; there are major differences between the states. The conditions which must be met for petitions for referenda and referenda proper are laid down in detail in individual state constitutions. These regulations differ widely in terms of quorums, notice periods, and minimum participation, as Table 1 shows.

In 2008 a local referendum on keeping open Tempelhof airport in the centre of Berlin failed because a quorum was not achieved. Although the majority of those who participated in the referendum were in favour of keeping the airport open, only 22 percent of those entitled to vote took part, short of the required 25 percent. This example shows that achieving the quorum represents a major hurdle that is often not cleared, even on important, and in this case emotional, issues.

Table 1.

Federal state	Petition for a referendum		Referendum	
	Quorum of signatories	Deadline for receipt	Quorum for agreement for "simple statutes"	Quorum for a law amending the Constitution
Baden- Württemberg	16.60%	14 days	33%	50%
Bavaria	10%	14 days	none	25%
Berlin	7% for "simple statutes", , 20% for laws amending the Constitution	4 months	25%	50% + two thirds majority
Brandenburg	ca. 4%	4 months	25%	50% + two thirds majority
Bremen	10%/20%	3 months	25%	50% + two thirds majority
Hamburg	5%	21 days	20%	50% + two thirds majority
Hesse	20%	14 days	none	not possible
Mecklenburg Vorpommern	–	none	33%	50% + two thirds majority
Lower Saxony	10%	12 months	25%	50%
North Rhine Westphalia	8%	8 weeks	15%	50%+ two thirds majority
Rhineland-Palatinate	ca. 10%	2 months	25%	50%
Saarland	20%	14 days	50%	not possible
Saxony	–	8 months	none	50%
Saxony - Anhalt	11%	6 months	25%	50%+ two thirds majority
Schleswig-Holstein	5%	6 months	25%	50%+ two thirds majority
Thüringen	10% (I), 8% (O)	4 months	25%	40%

Table 2.

Federal state	Quorum of signatures Citizens' initiative	Quorum of agreement Referendum
Baden-Württemberg	5–10%	25%
Bavaria	3–10%	10–20%
Berlin (districts)	3%	15%
Brandenburg	10%	25%
Bremen (City)	10%	25%
City of Bremerhaven	10%	30%
Hamburg (districts)	2–3%	None
Hesse	10%	25%
Mecklenburg Vorpommern	2.5–10%	25%
Lower Saxony	10%	25%
North Rhine Westphalia	3–10%	20%
Rhineland- Palatinate	6–15%	30%
Saarland	5–15%	30%
Saxony	(5–)15%	25%
Saxony - Anhalt	6–15%	25%
Schleswig- Holstein	10%	20%
Thüringen	13–17%	20–25%

3. Formal procedures at the municipal level

There is no uniform regulation of direct democratic procedures at municipal level, either. Each federal state has its own regulations. The number of procedures employed is everywhere much greater than at national level, however. Alongside citizens' initiatives and referendums, which is what referenda are generally known as at municipal level, there is a whole series of different possibilities for directly influencing political decision-making. Local residents have to be consulted, for example, on changes in development schemes and so-called planning approval procedures for roads. These participation rights as a rule concern only those who are directly affected – for example, those who live in a particular street – but not as bearers of sovereign rights and as responsible for the larger whole, namely the state. They regulate how the rights of those affected are exercised, for example, rights to raise objections to planning projects. Within the framework of these procedures citizens can essentially either be 'against it' or remain silent. To be sure, over the last few decades an increasing number of more constructive public participation procedures have been developed in the context of municipal

planning, for example, "Planning for Real." But this already puts us in the realm of informal procedures. Citizens' initiatives and referendums are subject to lower quorums, as Table 2 shows. The hurdles that have to be cleared for their deployment are correspondingly lower.

4. Informal public participation procedures

We now come to the wide range of informal public participation procedures, which are usually employed to solve local problems, but are by no means restricted to that. Table 3 presents not only a list of different procedures all of which have been developed since the 1970s, but also a list of areas of employment, that is, political problem situations. Here we shall distinguish between five different problem situations. At first glance, it would seem that priority is given to solving conflictual political problems, where a number of alternative solutions are already on the table. This type of problem, which we can also divide into conflict resolution and decision-making, differs fundamentally from problem situations in which solutions have yet to be developed. Both are familiar from municipal politics and naturally there is considerable overlap. Nevertheless, it makes sense to distinguish between these two (three) problem situations as ideal-typical.

Besides the two ideal-typical problem situations we can distinguish two others, and so also functions, namely information problems or information management, and complaint-related problems or complaint management. Many procedures are not so much for solving problems as for informing the public or gathering and dealing with individual or collective complaints.

Table 3 shows, without further explanation for the time being, the characteristic strengths of individual informal procedures for resolving the listed types of problems.

Table 3.

	Consensus Conference	Open Space	Citizens' Panel	Future Workshop	Mediation	Citizens' Exhibition	Planning Cells
Conflict Resolution					X		X
Scenario Development	X	X	X	X			X
Finding of Solutions				X	X		X
Establishing Basic Information	X	X	X				
Management of Complaints					X		

4.1 Future workshops

The method of Future Workshops, developed by Robert Jungk and Norbert Müllert in the 1970s, gives the participants the opportunity to work out concrete solutions whose implementation they will also be involved in following the Future Workshop. Robert Jungk wanted Future Workshops to give participants the courage to shape their (own) futures and to enable them to overcome the attitude that "there was nothing they could do." Future Workshops are therefore particularly appropriate for activating and involving people who previously were not politically active or took little interest in politics. The areas of application are diffuse because the development of solutions for problems takes place in widely different contexts. After a preparatory stage the procedure involves three phases: a "critique phase" followed by a "fantasy phase" and, finally, an "implementation phase." The individual phases last a whole day, if possible (Jungk 1981).

Features of the procedure:

- critique phase: the problem situation is examined critically;
- fantasy phase: desirable options (solutions) are outlined;
- implementation phase: possible solutions are tested for their feasibility;
- eliciting and encouragement of different approaches and viewpoints.

Example:

Future Workshops for attractive models for rural living for young people and families in Saxony Anhalt:

www.prolandleben.de/web/pdf/Zusammenfassung.pdf

4.2 Planning Cells/Citizens' Reports

The public participation procedure of Planning Cells developed by Peter Dienel in the early 1970s (which he supplemented some years later with mandatory citizens' reports presenting recommendations) was also a contribution to enhancing democracy. The idea was not to oppose the state, but on the contrary to call on government bodies to facilitate more democracy by convening Planning Cells. Since they are initiated from above Planning Cells are to some extent the opposite of citizens' initiatives.

A Planning Cell is a group of around 25 people, selected at random, who are invited to act as consultants, having been granted leave from their place of work, to work out solutions to a given problem. They are assisted by neutral moderators and the process usually lasts four days at most. As a rule, Planning Cells are initiated and commissioned by state bodies. Experts and lobbyists have the opportunity to present their positions, but, like juries, discussions involve only the participating citizens. Often between four and twelve Planning Cells work on a topic in parallel in order to boost the representativeness of the recommendations. The results of the Planning Cell are summarized in a citizens' report, which the citizens present to the commissioning body at a public event. Planning Cells and citizens' reports are predominantly goal-oriented. Because of the random selection process their recommendations are widely accepted by the public. (See the other contribution to this volume by Hans-Liudger Dienel on the development of this procedure.)

Features of this procedure:

- random selection of citizens;
- reimbursement and work release of participants;
- provision of contentious information by experts; (good)
- small working groups of changing composition;
- publication of results in a citizens' report.

Example:

Citizens' report on key points for an open, ecological and civil Europe:

www.nexusinstitut.de/download/citizens_report_ECC.pdf

4.3 Mediation

Mediation is an age-old form of conflict resolution – King Solomon was an early practitioner! – which experienced a revival in the 1970s in the USA and Germany as an informal, voluntary procedure for developing solutions acceptable to all participants. Horst Zillessen was one of its leading proponents in Germany. A neutral mediator assists the autonomous conflicting parties, encouraging them to work out various options independently. There are now several hundred trained mediators in Germany, dedicated courses of study and various further education opportunities. One area of political application is the resolution of multi-party conflicts through the mediation of a neutral non-partisan third party (Zillessen 1998).

Features of this procedure:

- voluntary participation, transparency of outcome, well-informed participants;
- conflicts are resolved by the conflicting parties themselves;
- the interests of the conflicting parties are given due consideration;
- planning for the future is central to the procedure.

Example:

Mediation: Wiener Platz in Munich: successful mediation between residents, business owners, the city council and citizens' initiatives concerning the redevelopment of Wiener Platz:

www.sellnow.de/docs/wienerplatz.pdf

4.4 Petition

The right of petition denotes the right to deliver a petition to the state authorities or parliament without fear of the consequences. There have been petitions, requests and complaints to those in power throughout history. In monarchies and dictatorships the petition is often the sole means by which the people can defend themselves against an arbitrary state. The individual is in the position of a supplicant who addresses his or her concerns to the powers that be with no legal right to an answer, still less to redress. In Germany there is a legal right to an answer. In 2005, moreover, online petitions to the Petitions Committee of the Bundestag and public petitions were introduced. In this way individual rights of complaint developed into a deliberative procedure. Besides administrative redress many petitions contain proposals for social and political innovation (Bockhofer 1999).

Features of the procedure:

- individual petition: one person submits a petition;
- joint petition: a group of people submits a petition;
- public petition: a petition is published and people have a limited time in which to sign it;
- in Germany petitions are dealt with by a Petitions Committee;
- arrangements for dealing with petitions differ widely between federal states.

Example:

Petition for better access to officials of the Federal Employment Agency. (Overviews of all public petitions to the Petitions Committee of the Bundestag, with online-discussions, are available at:

https://epetitionen.bundestag.de/

4.5 Citizens' Conferences/Consensus Conferences

The consensus conference, first introduced by the Danish authorities for the purpose of technology assessment, has since been adopted further afield, above all in the USA. This participatory procedure got off to a spectacular start in Germany with the first consensus conference on the future of genetic diagnostics, held in Dresden in 2001. Increasingly, other controversial topics are being addressed by this means, besides technology assessment. To some extent, as, for example, in Dresden, this method also goes by the name of citizens' conference. If stakeholders rather than citizens are selected as participants in a consensus conference the procedure can have the opposite effect: at the end of the conference the stakeholders are even more committed to their positions than at the beginning because they were unable to shrug off their role as representatives of particular interests during the consensus conference. Success using this procedure depends on whether the participants are able to adopt a new role and perspective. This is easier for citizens than for the representatives of concrete interests.

Features of this procedure:

- personally invited stakeholders and experts, or sometimes selected participants, meet in the run up to the conference over two weekends in order to be given information and to formulate questions to be addressed to experts;
- implementation: questions and discussion with experts;
- conclusion: preparation and public presentation of a concluding document.

Example:

"Streitfall Gen-Diagnostik" [The case of genetic diagnosis] – German Museum of Hygiene, Dresden:

www.bioethik-diskurs.de/Buergerkonferenz/Konsensus.html/

4.6 Open space

On his own account, the inventor of the participation procedure Open Space, the American organization consultant Harrison Owen, developed it as a by-product of an international conference he had organized. At this meeting the coffee breaks proved to be the most valuable part of the conference. In light of that Owen made open coffee breaks the basic principle of the procedure: participants in Open Space have no advance agenda and determine the direction, course, and contents of the process through their own activities, and work independently and simultaneously on a wide range of subtopics. If well moderated, Open Space can be very motivating and stimulate creativity. As a result, what you get is not so much decisions as many new ideas and suggestions. It is particularly well suited for preparing and focusing people's minds in relation to restructuring processes. This procedure has been much used in Germany, and as a result Harrison Owen is often invited to Germany to take part in further education and training courses.

Features of this procedure:

- preliminary moderation in a plenum;
- following this, a very open, self-organised structure in work groups;
- work groups can be shuffled at any time;
- suitable for groups of almost any size.

Example:

Open Space – The Groß Klein district of Rostock "At Home in Groß Klein": topic: how can living in Groß Klein be made attractive once again? www.buergergesellschaft.de/politische-teilhabe/modelle-und-methoden-der-buergerbeteiligung/ideen-sammeln-kommunikation-und-energie-buendeln/praxis-open-space-rostocker-stadtteil-gross-klein/103430/

4.7 Citizens' Panel

This procedure, developed by Helmut Klages at the beginning of the decade, is a regular, reiterated and standardized survey of randomly selected citizens on current topics of local politics. The questionnaire is put online, so opening up participation to all citizens. The procedure therefore functions entirely without discussions and opinion formation processes. Klages views his democratic invention as a response to the poor dissemination of small group-oriented procedures. Many citizens cannot be reached by means of

Future Workshops, Planning Cells, and Open Space. In contrast, surveys are more accessible to all citizens.

Features of this procedure:

- inclusion of broader population segments, as well as providing elected democratic and administrative bodies with information;
- surveying a representative group of 500–1,000 citizens over several years (3–4 surveys a year);
- timely feedback concerning results and feasibility to citizens, political decision-makers, and the administrative authorities.

Example:

Citizens' Consultation "Active Arnsberg": regular representative surveys of the public on local topics:

www.arnsberg.de/buergerpanel/index.php

4.8 Citizens' exhibition

The citizens' exhibition is another rather recent democratic invention. Its aim is to make public participation and its results more attractive by means of biographical, emotional, and aesthetic elements. It is basically an exhibition of posters which present one person's perspective on a given topic. It therefore gives visual form to personal perspectives in the working out of problem solutions and presents them to a wide range of people. The basic idea of citizens' exhibitions, developed by Heiner Legewie and Hans-Liudger Dienel, is to present the attitudes, goals, and motivations of interest groups, followed by public discussion. It starts with interviews with various people on a problem or topic of interest. In these interviews the interviewees talk about their attitude to the topic, what they feel about it, their difficulties, hopes, and ideas for a solution. At the same time, aesthetic elements – frequently photographs – are brought in that illustrate those involved and the essence of their perspective. On this basis the citizens' exhibition takes shape, in which pictures and interview excerpts are combined, thereby presenting in visual form a new, living viewpoint on the topic or problem. The citizens' exhibition serves to provide information, to stimulate further discussion, and to promote transparency concerning a debate or a process of change.

Features of the procedure:

- a combination of photographs and qualitative interviews on a poster;
- aesthetically attractive and emotional biographical presentation of the viewpoints of various participants;
- the ceremonial opening of the citizens' exhibition is part of the procedure;
- the citizens' exhibition is a means of providing information, increasing transparency, and stimulating further discussion.

Example:

Citizens' exhibition "Moving away and returning – stories of people who have come back to live in Magdeburg": people's motives for returning to the city were presented in the exhibition:

www.partizipative-methoden.de/buergeraustellungen/

4.9 Salon Method

The Salon Method was developed as a tool for developing visions. It focuses on devising realistic options for forward-looking action. This method for creating progressive concepts ties in with elements of the intellectual salon as a place of learned and profound discourse taking place in a relaxed setting that is pleasing to the eye - such as a hotel or park landscape. The aim is to offer a novel, stimulating environment for a temporary, creative think tank that combines the pleasure of intensive exchange with tangible results.

The Salon Method comprises five steps and is scheduled for two days: the first step involves the submission of an initial conceptual paper on the Salon's topic. The second step is designed for participants to define and analyse the problem in greater depth. Next, creative visions are developed in the third step. The fourth step provides deriving specific feasible suggestions for action from these visions. Finally, the results of these four steps are summarized and incorporated into a new overall concept.

Only the first step resembles models of communication that will be familiar to participants. The second step already deviates from the usual course of conferencing. The method offers ideal conditions for extensive dialogue right from the start. Similar to Aristotle's peripatetic school of philosophy (peripatos = "covered walk"), the Salon Method chooses walks in twos as the most intensive form of intellectual exchange. Participants

engage in intensive dialogue during these walks. Later, each conversation pair is questioned on their view and assessment of the problems. The results of these dialogues are noted down. Furthermore, developing visions is encouraged by the use of various creative methods, *e.g.* based on the procedure of the "World Café" or the Imagination Phase used in the Future Workshop.

In the morning of the second day, participants work out solution approaches in teams. To this end, the moderator suggests three outstanding participants (with their consent) as "candidates" who are expected to set diverging priorities. These candidates are then joined by a team of experts, forming a group that can be freely joined by other participants, and assigned the task of drawing up a particular policy. The teams are asked to prepare a solution or action concept, such as a 100-day programme or a draft budget.

Based on these drafts, participants finally review the suggestions made in the initial conceptual paper once more, while the experts may add suggestions or comments. The moderators then prepare a vision paper based on this material and send it to the participants after the Salon is over. Participants may comment on this paper in writing, adding criticism, opinions or their personal rating. The paper is then handed out together with the ratings and published.

Example:

Technology-Salon on the future of RFID Technologies in 2008. There have been serious and controversial discussions on the application of "Radio Frequency Identification" (RFID) during the last years; ending up with a wide scope of different perspectives and unanswered questions. Which political framework would be needed to ensure the use of RFID? How can radio technology be implemented responsibly? On September 25th 2008, these and further questions were discussed at the 1st Berlin Technology-Salon "On the path to a transparent product: The political framework for the future of RFID-Technology" (German: „Auf dem Weg zum gläsernen Produkt: Politische Rahmenbedingungen für die Zukunft der RFID-Technologie"). The Salon was hosted by the Representation of the federal state of Northrhine-Westphalia and the METRO Group Future Store Initiative. Approximately 40 attendees from politics, economy, science and civil society argued the political framework for the future utilization and development of RFID-technology and reconsidered solutions for aligned challenges. The goal: Formulation of a joint position of all participants. The meeting in the Salon offers ideal conditions for a stimulating discourse about an issue and the collective development of concepts. With various discussions in small subgroups, intensive dialogues, lectures and plenum

hearings, the Berlin Technology-Salon differs from workshops and conferences that are often regarded boring and exhausting.

www.nexusinstitut.de/download/10-01-13_Broschuere_RFID.pdf

5. Conclusions and Outlook

This chapter presented and analysed the use of different participative processes in Germany, which often stem from (local) direct deliberative democracy, but in the last 15 years have gained much audience and respect in the world of science and innovation policy.

Participative processes are a core element in the strategies to shift innovation policies in different OECD countries towards a type of innovation, which develops solutions for social challenges. In some cases, we need processes to suggest a new distribution between different disciplines, in other cases exploratory methods for the development of new tasks, new combinations of disciplines and schools. Therefore, we need "Meta Matching" methods to select and combine participative tools in order to meet the new policy demands for innovation to meet social challenges. Not only participative processes but independent institutions and organisations for a participative innovation policy are rapidly gaining more audience, funds and space of manoeuvre in OECD countries. This development will and shall go on in the future.

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CHAPTER 11
POLICY IMPLICATIONS

Yuko Harayama
Deputy Director, Directorate for Science, Technology and Industry, OECD
and
Yoko Nitta
Associate Fellow Research Institute of Science and Technology for Society (RISTEX)
Japan Science and Technology Agency

This chapter presents an overview of arguments and ideas to support further reflection on what could be done to foster innovation to address social challenges Several leads and options for follow-up work on innovation for social challenges are proposed. Not all of the proposal may be operational but they serve as a basis for reflection and discussion among stakeholders from the public and private sectors.

Policy's response to conceptual barriers

Proposal 1: Launch an international initiative to agree upon a common definition of social innovation

The two OECD workshops have demonstrated the wide variety of activities and notions that fall under the label of social innovation, from new ways – more inclusive, democratic, and less linear – of doing research to new forms of class management in schools or new forms of communication within the political process. Although this variety is to some regards an evidence of the untapped wealth of this form of innovation, it also contributes to the fuzziness of the notion. To focus the definition of social innovation and narrow-down its underlying variety is a first step to better support it.

Proposal 2: Continue research and reflection on the definitions and measurement of innovation based on the Oslo Manual definition, in order to better take into account social innovation efforts and results.

Research could aim to assess the extent to which internationally agreed definitions of innovation, especially the *Oslo Manual* definition, can better take into account social innovation. A similar endeavour was launched on

how to better include non-technological innovation in the definition prior to releasing the 3rd edition of the manual. However, non-technological innovation is still limited for the most part to organisational and marketing innovations. This effort should therefore now be extended to social innovation. A better inclusion of social innovation would:

- allow a more accurate assessment of social innovation investments and results;
- permit better monitoring of the actions that underlie social innovations (hence improving/accelerating policy learning);
- lead to greater recognition of the contribution this form of innovation to growth and social welfare;
- improve legitimacy of actors and initiatives aimed at generating social innovations;
- allow certain expenses to be eligible in several innovation support schemes.

Policy support to social innovators

*Proposal 3: Design information systems (***e.g.** *through technology scanning and foresight) to be able to detect, characterise and diffuse knowledge on cases of social innovation*

Social innovations most often derive from isolated experiments that aim to solve local social challenges. There is a huge opportunity cost in not valorising the knowledge stemming from this wealth of experiments that test the different options and configurations of social innovations.

The information system should also include in its "search perimeter" the various policies and initiatives designed to support them. Policy learning through exchange and benchmarking would be very instrumental given that most of these initiatives are implemented at the micro-level.

Proposal 4: Design support scheme dedicated to social entrepreneurs and, more generally, social innovation

The OECD workshops have shown that social innovation is still very much at entrepreneurial stage and that R&D and funding system is not adapted to support the so-called social entrepreneurs. A parallel can be drawn with the first "technological innovators" that dominated nascent industries at the outset of the 20th century: social innovation is not yet institutionalised, still relying upon individual initiatives, weakly connected

and poorly supported. The social entrepreneurs are not recognised and have few financial and cognitive/technical external resources to implement, extend and transfer their initiatives.

- More generally, it is clear that the imperative of solving many social challenges is poorly conveyed by firms when responding to traditional research and innovation incentives (such as call for proposal).

New schemes should be added to common public decision maker instruments' portfolio with a view to:

- Provide incentives (through finance, legitimacy) to tackle social challenges. For that purpose the "user-led" nature of social innovation should be acknowledged and innovative instruments (demand-side instruments, or even better "community-based" instruments) should be put in place.
- Support exchange on best practices and solutions between social entrepreneurs, within and across area/sectors/domains.
- For instance one can think of clusters dedicated to social entrepreneurship (as it is being initiated for instance in the South of France) or social enterprise incubator. See also of course the example of Ashoka and the support it provides to "Ashoka fellows" (from stipends to access to a global network of top social and business entrepreneurs).
- In a more mid-term perspective, need to close the gap between social and business sectors. Social entrepreneurs should be institutionalised.

Proposal 5: Support interdisciplinary research on social innovations, provide incentives for linkages between research and social innovators

- Unlike technological innovation, where research is often at the inception of the process (which can of course, following the seminal "spark", be very non-linear with many short term and long term feedback loops between research and innovation), social innovation is most of the time generation the field. Through trial-and-errors, learning-by-doing, new solutions are found to social challenges. Hence research is not yet involved in social innovation, which is not enough perceived as a research area that would comply to increasingly stringent criteria of academic excellence. Social innovation should be acknowledged as a legitimate research area and linkages with social innovators and other social innovation stakeholders should be strengthened so that social innovation experiments feed in the research community. Knowledge stemming from social innovation must be

formalised, codified, compared, challenged in the scientific debate, just like any knowledge that underlie other forms of innovation.

- Interesting examples of research programmes dedicated to social innovation exist in Quebec (University of Quebec), where different types of stakeholders are involved in research programming In the UK NESTA provided interesting examples of new forms of labs that deal with social challenges (climate, aging, health. etc)

Proposal 6: Provide incentives for corporate firms to address social challenges

The public sector alone will not be able to cover the whole social innovation imperative: there is a need for corporate social responsibility.

Providing incentives for firms to be more proactive in dealing with social challenges is an important task for governments.

Creating the framework conditions that are conducive to social innovation

Proposal 7: Favour cross-sectoral, interministerial initiatives to foster social innovation

- Social innovation fits poorly in the existing institutional boundaries and other governmental walls and silos. Hence, any effective support initiative should be interministerial. To the extent possible, the variety of public decision-makers should reflect the diversity of stakeholders, disciplines and sectors concerned by the social challenges .

Proposal 8: More inclusive and forward-looking policy-making process

- The process of generating social innovation makes it necessary to open-up the policy-making process in order to involve more private stakeholders (concerned by solving social challenges). The governmental process should be able to gather the competencies and skills that are required by this new form of innovation.

Proposal 9: Explore rationale and need for specific training

- Specific education: participatory techniques.
- Specific training.

Proposal 10: Encourage new forms of evaluation

- Greater attention might be given to social impacts of research but also to the contribution to addressing social challenges.

Traditional assessment of the technological and economic reliability of knowledge is insufficient. There is a need to check whether the new knowledge is "socially reliable". There is also a need for a new form of dialogue between science and society, not only expert-based assessment. Finally, new individual career assessment of researchers may also be needed.

Conclusions: next steps

Thinking outside of the box is crucial for understanding social innovation. Significant progress was achieved during the OECD CSTP workshops as has been highlighted, notably as regards the requirements for innovation to address social challenges at the micro level (via new guiding principles for innovation project management such as user-led innovation and open innovation), the meso level (a move toward a new forms of industrial organization, and the macro level (a renewed system of governance calling for new forms of cooperation and open interaction). The lessons learned from practical experiments help create collective vision and generate knowledge in a multi actor learning space.

In addition, community based projects to enlist society at large in the innovation process were worth noting. Some questions raised by these experiments include: How to select the most appropriate tools and methods to develop a participative approach? How to replicate methods? Hot to bring these adapt and diffuse? How to go beyond good practices?

It was noted that a cross disciplinary approach was needed as well as corporate social responsibility and that NGOs play a crucial role to promote and support to social entrepreneurs, universities reform to take on-board innovation. It was also noted that co-ordination mechanisms with government need to be improved to mobilise innovation for social challenges.

How can understanding and experience be brought to bear to promote social innovation? One way is for the OECD to help stakeholder to better characterise the notion of social innovation, acknowledging the existence of different layers (micro, meso and macro) and typology (from local to mega-challenges), and deepening systemic understanding of the process through which social innovation take place.

In order to move the discussion forward, it is necessary to strengthen the linkages among-science,-technology and society and develop platforms for fostering mutual understanding. The challenge ahead is to bridge the gap between stakeholders and embrace differences and to move from debate to the delivery of new practical tools and approaches.

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