

# ICT-ENABLED SOCIAL INNOVATION (IESI): A CONCEPTUAL AND ANALYTICAL FRAMEWORK

Information and Communication Technologies (ICTs) are permeating any single aspect of human life. Employing these technologies is vital for the modernisation of social services in terms of service design and delivery in areas such as childcare, education and training, employment services or social care. This "social investment perspective" shows that social policy is not just a cost, but rather an investment for the future.

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## ICT-ENABLED SOCIAL INNOVATION (IESI)

**"A new configuration or combination of social practices providing new or better answers to social protection system challenges and needs of individuals throughout their lives, which emerges from the innovative use of Information and Communication Technologies (ICTs) to establish new relationships or strengthen collaborations among stakeholders and foster open processes of co-creation and/or re-allocation of public value" [1].**

The definition originates from the work of the European Commission's Joint Research Centre – Seville, in partnership

with the Directorate General for Employment, Social Affairs and Inclusion. The research focuses on assessing the impact of ICT-enabled social innovation and providing evidence-based support to the EU Social Investment Package for Growth and Social Cohesion (SIP) [2], which urges European Union Member States to prioritise social investment and the modernisation of their welfare systems [2].

The IESI research developed a knowledge base with evidence on the impact of ICT-enabled social innovation across the EU. It collects and analyses over 600 initiatives across the EU, exploring the emergence of ICT-enabled social innovation in different areas [3].

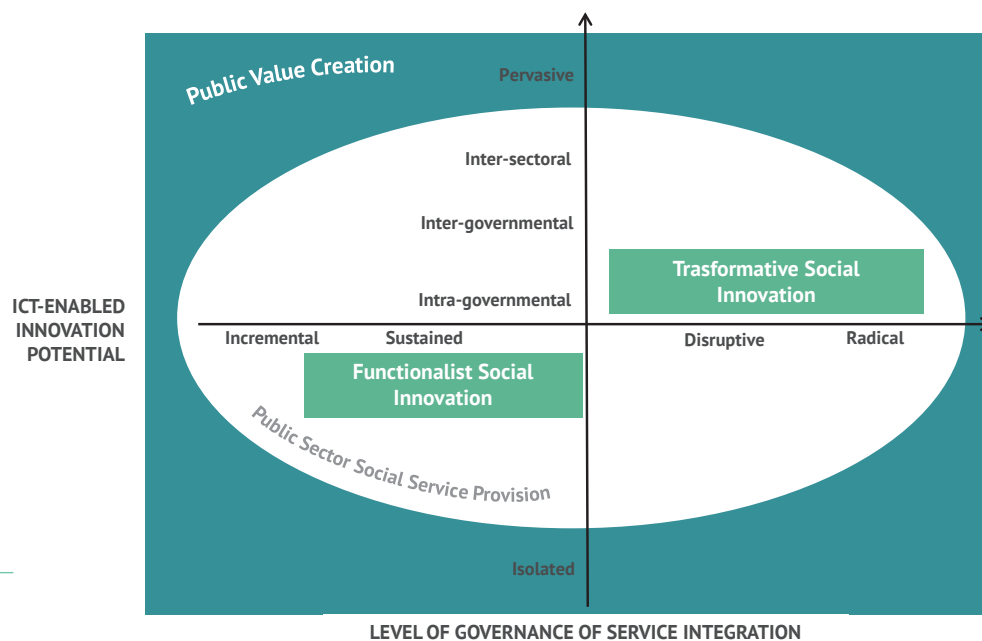
ICT-Enabled Social innovation creates positive societal impact and systemic change through developing new products, such as assistive technologies for people with disabilities; new services, such as knowledge sharing portals; and new processes, such as peer-to-peer collaborations and crowdsourcing. It often results in new organisational forms, shaped on the basis of public-private partnerships, and are acting as intermediary between social needs and social service providers.

Examples of initiatives include:

**Shadow World, Finland** is an initiative of the Ministry of Health and Social Affairs targeting children growing up in households where parents suffer from substance misuse. It provides information, support and means to deal with such difficult life situations.

It includes an online portal that contains a blog, a directory of addresses where children can find help, a checklist, an anonymous free online consultation service and a message board. This, in combination with face to face interaction, helps providing counselling and mentoring services.

**FreqOUT!, UK** addresses the problem of disengagement of the disadvantaged youth in UK – often from ethnic minority groups-. It offers new forms of education and training for those hard to reach. It targets young people (14-25) through the use of advanced digital media tools and connects them to creative professionals and industry in new and exciting ways. This initiative is leading to improvements in ICT skills; soft-skills and hard-skills bridging to formal learning participation.



IESI Analytical framework  
(Source: own elaboration)

### THE CONCEPTUAL FRAMEWORK

The IESI conceptual and analytical framework was developed through an extensive review of the state of the art, and further validated through the study of a number of initiatives operating in Europe and beyond. The research looks at initiatives bridging the gap between social innovation and service innovation, building on a multi-agent framework. In other words, the research focuses specifically on innovative social services conceived and deployed in a context of co-creation where citizens, service providers, social entrepreneurs and third sector organisations play a prominent role in the innovation process and where the actions are sustained by public stakeholder agencies in a rapidly evolving context.

The framework is designed in a Cartesian coordinates system and by studying where initiatives sit along each dimension, one can assess the extent to which they are able to respond to complex social issues and challenges. Initiatives can fall into two main areas in which they can have impact [1][3]:

- **Public sector social service provision:** organisations are involved at different levels as main service providers through traditional public service delivery mechanisms. Services in this sphere can also be contracted out through concessions, outsourcing, or other public-private partnerships systems. Organisations from the private or third sector and citizens are involved; though they normally play a subsidiary role. In some cases, however, the design and provision of innovative social services may be initiated by private or third sector organisations and may be embedded in the public service delivery system.
- **Public value creation** broadly refers to the ‘value created by government through services, law regulations and other actions’. Public value provides a broad measure of outcomes,

the means used to deliver them, trust and legitimacy. It addresses issues such as equity, ethos and accountability, which may generate value for the stakeholders involved in the innovation processes. Generating public value for citizens depends on the quality of service delivery which is measured in terms of service availability; satisfaction levels; importance; fairness of provision; and cost.

Social innovations enabled by ICTs may increase the value of public service delivery compared to traditional service delivery mechanisms. Each initiative can be interpreted through the lens of different approaches. In the functionalist tradition, social innovation is the answer to a social problem. It concerns with the creation of social services to meet a demand which neither the state nor the market is responding to. The transformative approach sees social innovation as the driver of institutional change. Thus, the resolution of social problems is part of a broader perspective involving change in institutions and society.

- The IESI framework extends along four main dimensions:
- 1) typologies of ICT-enabled innovation potential;
  - 2) elements of social innovation;
  - 3) levels of governance of service integration; and
  - 4) types of service integration.

### TYPOLOGIES OF ICT-ENABLED INNOVATION POTENTIAL

Information and Communication Technologies support socio-economic inclusion of actors in many contexts and enable social innovation processes through many channels. Indeed, ICTs per se are not a policy instrument at the same level of direct public services, regulation, taxation or grant

giving. They provide channels and tools to improve efficiency and effectiveness of the social service systems. The opportunity for ICT-enabled social innovation lies in the design of innovative social policies and service delivery mechanisms for their effective implementation.

To operationalise the framework, a systematic classification of the different impacts of ICT-enabled innovation was applied. The framework was developed by Misuraca (2012) and further elaborated in Misuraca and Viscusi [4]. It consists of:

**a. Technical/incremental innovation:** use of ICTs to facilitate automation of repetitive tasks and thereby improve efficiency thus improving quality and efficiency of the internal and external business processes.

**b. Sustained/organisational innovation:** use of ICTs to support, facilitate or complement existing efforts and processes to improve organisational mechanisms of service provision. This implies change at organisational, managerial, or governance/institutional level, such as the creation of new organizational forms, the introduction of new management methods and techniques, and new working methods, as well as new partnerships or business/financial models.

**c. Disruptive/transformational innovation:** use of ICTs to initiate or improve new services or to create new mechanisms for service delivery which would be impossible otherwise (e.g. use of ICTs for learning purposes beyond office/school hours).

**d. Radical/transformational innovation:** substantial use of ICTs that takes place outside recognised institutional settings and aims to radically modify the existing mechanisms of service provision. This may lead to conceptual innovation, reframing the nature of specific problems and their solutions.

## ELEMENTS OF SOCIAL INNOVATION

The second dimension of the IESI conceptual framework – elements of social innovation – builds upon and extends on previous literature, and focuses on the relationships between stakeholders by dividing social innovation into the following four categories:

**a. Need-driven/outcome-oriented production:** outcomes are intended to meet the needs of society or specific groups in society in a long lasting way.

**b. Open process of co-creation/collaborative innovation networks:** end-users and other relevant stakeholders participate in the development, implementation and adoption of these innovations.

**c. Fundamental change in the relationships between stakeholders:** the ways in which stakeholders relate, interact and collaborate with each other are radically

changed. Social innovation may be seen as a 'game changer', breaking through 'path dependencies'.

**d. Public value allocation and/or re-allocation:** in achieving these values it is important to look beyond the presumed or achieved consequences of the innovation in terms of effectiveness or efficiency. The public values pursued by social innovation also try to ensure that the innovation is appropriate, for instance, as it adds to the value of democratic citizenship, or really addresses – in terms of responsiveness – the needs of citizens.

## LEVELS OF GOVERNANCE OF SERVICE INTEGRATION

The third dimension of the framework of analysis concerns the need to address integration of social service provision to increase the coordination of operations within the social service system, to improve efficiency and to produce better outcomes for the beneficiaries. Integration has evolved significantly over the last decade as governments search for ways to address beneficiaries' needs and manage increased caseloads with reduced resources. In this period, integration progressed through the implementation of schemes based on traditional and emerging ICTs, new funding models, and a more dynamic relationship between governments, citizens, and service providers from the private and not-for-profit sectors.

However, where several different classifications of integration can be found, no clear and precise definition of the concept of 'service integration' emerged. The definition of service integration, adopted for the purpose of the IESI research, thus refers to the ways different ICT-enabled social innovations contribute to enhancing social service delivery through integrated approaches and coordination at governance or functional level.

Therefore, the following levels of governance of service integration were considered:

- **Isolated.** No integration of services at administrative or strategic level with government operations.
- **Intra-governmental integration.** Single level of government. Includes integrated case management, designing service delivery according to the needs of individuals rather than service providers; frontline integration to offer clients a 'single window'; back-office integration to provide the necessary support structures; and co-location of practitioners, services and back-office functions.
- **Inter-governmental integration.** Collaboration across multiple levels of government. Includes database integration, coordinated case management, and joint procurement.
- **Inter-sectoral integration.** Collaboration between government and service delivery providers in private or non-for-profit sectors. Includes joint investment strategies, co-location of staff and formal networks of service delivery organisations.

- **Pervasive.** Service integration beyond the traditional boundaries of administrative/operational integration, embedded in a new *modus-operandi* where service providers and beneficiaries co-produce service innovating delivery mechanisms and reallocating resources/roles to maximise public value creation.

## TYPES OF SERVICES INTEGRATION

From an operational/organisational perspective, the integration of services enhances effectiveness in terms of improved outcomes, efficiency and reduced costs. It increases capacity and value for money, improves strategic planning and system integrity, and reduces demand for crisis services. Moreover, from the beneficiary's perspective, it provides simplified access, holistic and customised support, faster response times, improved outcomes and user experience. Therefore, as part of the IESI analytical framework, the initiatives are analysed according to their type of service integration:

- **Funding:** pooling of funds or pre-paid capitation at various levels.
- **Administrative:** consolidation/decentralisation of responsibilities/functions; inter-sectoral planning; needs assessment/allocation chain; joint purchasing or commissioning.
- **Organisational:** co-location of services; discharge and transfer agreements; inter-agency planning and/or budgeting; service affiliation or contracting; jointly managed programmes or services; strategic alliances or care networks; common ownership or mergers.
- **Service delivery:** centralised information, referral and intake; case/care management; multidisciplinary/interdisciplinary teamwork; joint training; around-the-clock coverage.

## DISCLAIMER

The views expressed in this chapter are purely those of the authors and may not in any circumstances be regarded as stating an official position of the European Commission.

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To understand the role of ICT-enabled social innovation in support of the modernisation of social protection systems, the relationship between different welfare systems and social service provision models was studied [5]. Relevant examples are the following:

**LITTLE Bird, Germany**, is an online portal employed to facilitate access to childcare. This is an example of collaboration/co-creation where ICTs are used to improve allocation/matching the supply and demand of childcare; it delivers increased benefits to society as more parents may be in work and children are cared for, also it delivers savings for the state.

### Digitalisation of Social Security Services, Italy.

The scope of the initiative was that of simplifying administrative procedures, improving control of information by citizens, and producing savings in the management for the administration of the public sector as a whole. ICTs helped fostering the collaboration between government and service delivery providers in the private and non-for-profit sectors. New investments in ICTs provided the instruments to improve accessibility, traceability, accountability, monitoring and controlling, with a subsequent increase in the level of quality of services delivered and a reduction in undue benefits and frauds. The digitalisation resulted in a reduction in management costs, registering savings of 7% per year, contributed to the efficiency of the organisational system through a more efficient allocation of the internal staff and a decrease in workload, resulting in savings of around 1,000 full-time equivalents.

## ACKNOWLEDGMENTS

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