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Work Package 2
Impact Assessment Framework
Task 4: Literature review on indicators and methods

Deliverable D2.1 Literature review on indicators and methods

Interim report

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REPORT SUMMARY

Background to this report

This report is set out to respond the second objective of the MIREIA project and, in particular, Task 4: Literature review on indicators and methods which aims to understand the current status of literature of policy, theories, indicators, and existing statistics at various levels (European, national and regional) to select the most appropriate 1) indicators and 2) methods to build the IA framework. This report is in part based on the final deliverable of the research project 'Exploratory Study on Methods used to measure the ICT-mediated Social Impact of grassroots organisations' (MMTSO). The study was commissioned by IPTS. The main objective of MMTSO was to map and review the evaluation and impact assessment methods that have been developed and used to understand the social and economic impact of eInclusion actors, with a focus on quantitative approaches and production of measures that relate to policy goals.

What the report covers

The report has been structured in two different levels of literature review:

A.   **Policy level: linking theory and practice.** Based mainly on research conducted by the JRC-IPTS MIREIA team outlining the key policy developments in the European context, analysing publications and studies performed or commissioned by various European Commission Directorate Generals (mainly former CNECT, INFSO and JRC-IPTS) in the last decade, although there are references to other publications and a wider timeframe. In this section the literature review has been divided into two categories: general research on monitoring and evaluation related to eInclusion and specific literature on intermediaries. It also includes a summary of Policy frameworks for e-Inclusion where set of indicators are provided.

B.   **Practitioner level: methods to assess the impacts of e-Inclusion actors.** It builds on relevant findings of the *Exploratory Study on Methods used to measure the ICT-mediated Social Impact of grassroots organisations* conducted by Arcola Research for the JRC-IPTS (2012), based on the compilation and preliminary profiling of a list of 81 examples of impact assessment approaches, identified through a literature and practice review.

The MMTSO has undertaken a sequence of additional research activities, following a 'realist review' methodology. The end result of the review was a report containing a 'feasibility analysis' of three different impacts assessment 'methods' that were identified as the most relevant and promising methods in terms of providing inputs to the framework to be developed by the MIREIA project.

Selection of these three most relevant approaches was based on work done in the preceding stages of the MMTSO study (and reported on in the study Deliverable 1). The starting point of the work was the compilation and preliminary profiling of a 'long list' of 81 examples of impact assessment approaches, identified through a literature and practice review. This long list was then evaluated using a set of 'inclusion-exclusion criteria' which assessed: the relevance of the approach; the robustness of the data; the accessibility of the data. Following this initial evaluation, a short list of eleven impacts assessment approaches was compiled.

These eleven approaches were then documented and analysed more fully by assessing each one in terms of their strengths and weaknesses, using: relevance analysis; SWOT analysis; consistency with the aims and objectives of the Digital Agenda for Europe; transferability to similar domains and aggregation of impacts data to EU-wide social inclusion measures. Three 'most relevant' approaches were then selected for further analysis on the basis of their scores on the above assessment criteria. These were: VET4e-I; Social Impact Demonstrator Projects; International Computer Driving License.

Detailed documentation and analysis of these three 'most relevant' approaches was then carried out with particular reference to their feasibility as inputs to developing the MIREIA framework, and with reference to illustrative case studies of their use by grass roots organisations.

Following the results of this detailed documentation, and a review of the study itself, the methodological focus of the study shifted from a comparative analysis of the three selected approaches - VET4e-I; Social Impact Demonstrator Projects and the International Computer Driving License, in order to identify which of the three was judged 'most feasible' for transferability to the MIREIA framework – to broader analysis based on the idea of 'scenarios of praxis'.

Three such scenarios were identified:

- Impacts Assessment that has evolved through the activities and interactions of 'communities of practice';
- Impacts Assessment that aims to reduce impacts measurement to a single metric, often based on social return on investment (SROI);
- Impacts Assessment that focuses on 'outcomes identification'.

This report therefore focuses mainly on the final activity of the MMTSO study –final detailed documentation and analysis of the three 'scenarios'. It provides conclusions and recommendations for the next phase of MIREIA, and incorporates the results of a Validation Workshop which involved representatives of different stakeholders in the field of impacts assessment for eInclusion. This current Report includes additional case study analysis of examples of the use of impacts assessment methods in real-world 'grass roots' interventions.

These cases were identified by IPTS and discussed in the first workshop in May and they are:

- 'Realising Ambition' – the 'BIG' replication programme supporting projects working in youth crime prevention.
- UK Online Centres – the national network of community-based centres providing funding, consultancy and training to improve digital literacy.
- The Guild – a UK consultancy providing evaluation support to voluntary and community organisations and social enterprises which has developed a toolkit 'Consultant in a Box' to help its clients develop their impacts assessment.

Key conclusions

One of the main findings from the combined analysis conducted is that it seems that there are no systematic literature reviews and established evidence base on how e-Inclusion actors evaluate what they do, and what their actual impacts are. Although some impact assessment methods are currently being developed, the data gathered by the initiatives are generally not sufficiently robust to evaluate their outcomes and to validate their impact. There is no established 'evaluation culture' and the evaluation that is carried out reflects differing, sometimes oppositional, approaches and methods; different classifications systems, a scarcity of data, and scattered initiatives characterized by under-developed evaluation skills and capacities. Four key conclusions stem from the review:

- There is no 'one size fits all' impacts assessment solution for eInclusion actors in this field. The results of the MMTSO documentation and analysis of methods do not support the proposition that a particular impacts assessment approach or method is 'best', or that a particular approach or method should be selected as the core of the MIREIA framework.
- Instead, the study results suggested that a more fruitful approach would be to consider impacts assessment in this field as a set of 'scenarios of praxis'. These scenarios reflect a particular conceptual and methodological focus and orientation, which then becomes

embedded in the practices of eInclusion actors and subsequently adapts and develops through 'use'.

- However, further documentation and analysis of three selected 'scenarios of praxis' showed in turn that no one of these 'scenarios' provides clear evidence of greater relevance, effectiveness and usability than any of the others. Instead, each can be seen as reflecting different merits for different purposes.
- The overall conclusion of the review, therefore, is that the main purpose of the MIREIA framework and indicators should be to support impacts assessment as a 'process' – the process of creating the conditions to enable the embedding and implementation of concepts, methods, tools and practices, and their subsequent daptation and evolution through use.

Recommendations

Drawing on these conclusions, the main recommendations of the analysis propose an impacts assessment framework for MIREIA that incorporates four elements:

- First a set of 'Impacts Assessment Principles' that need to shape the design, development and implementation of the framework
- Second, an over-arching evaluation paradigm for the framework
- Third, a Structural Model aimed at identifying the 'building blocks' that need to be incorporated in the framework
- Fourth, Operational Scenarios that could be explored to begin to put the framework into practice.

The eight Impacts Assessment Principles cover:

- Principle 1: Robustness
- Principle 2: 'Good-enoughness'
- Principle 3: Balancing standardisation with contextualisation
- Principle 4: 'Working with the Grain'.
- Principle 5: Supporting Quality
- Principle 6: Bridging Evaluation Levels
- Principle 7: Reflecting the Assessment Life-cycle.
- Principle 8: Practicality and Usability.

The evaluation paradigm draws on action research and action learning. It emphasises evaluation and impacts assessment as a 'learning process' that covers the whole intervention life-cycle: from designing interventions through to not only supporting organisational and intervention development by applying the results obtained, but moving further along the 'impacts journey' to consider the transferability and replication of practices that 'make a difference'.

The Structural Model for the Framework consists of six modules:

- A 'Scoping Module' targeted at IA initiators, frontline staff and funders, and providing tools for organisational Analysis, intervention profiling, evaluation Needs Assessment, evaluation Capacity Audit, Evaluation Leadership.
- A 'Training Module' targeted at IA facilitators, frontline staff and users, and providing tools for evaluation facilitation, webinars, a training toolkit, and training events involving Action Learning.
- An 'Impact Assessment Design Module', targeted at external consultants, frontline staff and users, and providing tools to support: identification of IA Purposes, Objectives, Audiences; guidelines and tools on appropriate Methodology and Methods; tools for assessing IA logistics and resource requirements.

- An 'Implementation Module' targeted at external experts, frontline staff, users and intervention partners, and providing tools on data collection strategies and practices and quality control.
- An 'Analysis Module' targeted at external consultants and management staff and providing tools for Coding; Quality Control; Statistical modelling; Cost analysis; Qualitative analysis.

The Operational Scenarios envisage the creation of a 'learning environment' within MIREIA that is developed, reviewed and updated by the communities of practice operating in the field, and which is supported by 'learning activities' rather than a static collection of mainly text-based resources. It incorporates:

- Traditional 'text-based' resources.
- The use of Web 2.0/Web 3.0 tools to support new collaborative knowledge networks involving communities of practice.
- Developing a peer review and benchmarking system.
- Network consolidation, strengthening and integration systems and activities.
- Developing methods and mechanisms to support the development of IA capacity in grass roots organisations and networks.
- Developing and disseminating tools and practices using innovative ICTs for data capture and learning.

1. Background to this Report

1.1 The report in the context: aims and objectives

The MIREIA study has been conceived with the aim **to better understand the diversity of e-Inclusion intermediary organisations and actors and to create adequate instruments to facilitate the demonstration of their outcomes and their contribution to the achievement of European e-Inclusion policy goals** (where e-Inclusion is intended as the conjunction of Digital Inclusion and ICT-mediated Socio Economic Inclusion). In concrete, the objective of the study is twofold, aiming at the same time to:

1) **characterise and map eInclusion intermediary actors in Europe** in order to know better: a) What eInclusion actors are, which services they provide, to which targets groups, how they operate and innovate, and how they can be classified (typology); b) What a plausible estimation of the size and distribution of the actors can be.

2) **build and test an impact assessment framework** that will allow to systematically collect end-users longitudinal micro-data through grassroots organisations and aggregate it at various levels, in order to facilitate the measurement of outcomes and the estimation of the impact of those actors on employment, education and social inclusion.

This report is set out **to respond the second objective of the MIREIA project and, in particular*, Task 4: Literature review on indicators and methods* which aims to understand the current status of literature of policy, theories, indicators, and existing statistics at various levels (European, national and regional) to select the most appropriate 1) indicators and 2) methods to build the IA framework.**

For these purposes, we can distinguish two different levels of literature review than can be relevant for our analysis and that have been reviewed and presented in this report as follows:

A.   Policy level: linking theory and practice

This section of the literature review is based mainly on research conducted by the JRC-IPTS MIREIA team outlining the key policy developments in the European context, analysing publications and studies performed or commissioned by various European Commission Directorate Generals (mainly INFSO – former CNECT- and JRC-IPTS) in the last decade, although there are references to other publications and a wider timeframe. In this section the literature review has been divided into two categories: general research on monitoring and evaluation related to eInclusion and specific literature on intermediaries.

B.   Practitioner level: methods to assess the impacts of e-Inclusion actors

It builds on relevant findings of the *Exploratory Study on Methods used to measure the ICT-mediated Social Impact of grassroots organisations* conducted by Arcola Research for the JRC-IPTS (2012), based on the compilation and preliminary profiling of a list of 81 examples of impact assessment approaches, identified through a literature and practice review.

The **Theoretical level, ie., how actors work and types of impacts is covered by t**he literature review from D1.1 which is drawn from the main results of the *Exploratory study on explanations and theories of how Telecentres and other community-based e-Inclusion actors operate and have an impact on digital and social inclusion policy goals* conducted by the Technology & Social Change Group at the University of Washington Information School for the JRC-IPTS (2012). also includes some elements from the *Literature review on Employability, Inclusion and ICT* conducted by the Institute for Employment Research of the University of Warwick for the JRC-IPTS (2012).

1.2   Policy background

The key policy driver for MIREIA and for the MMTSO exploratory study is' eInclusion', which is a hugely important issue for the EU and a significant component of social and employment policy. The 'Riga Declaration' (2006); the Lisbon Declaration on eInclusion (2007); the 'eInclusion: be part of it' initiative and i2010 - a European Information Society for Growth and Employment initiative - set ambitious targets for 2008 and 2010 to ensure that 'nobody is left behind', against the backdrop of the renewed Lisbon agenda and the 2006 'Communication on Lifelong Learning'. These policy actions denote a recognition that particular action has to be taken to make ICT accessible to groups at risk of exclusion from the knowledge-based society. In its Communication on Media Literacy in the Digital Environment (2007b) the Commission takes note of the fact that due to the increased availability of digital media products and user generated content, there is a need to empower the citizens to "actively use media, through, inter alia, interactive television, use of Internet search engines or participation in virtual communities, and better exploiting the potential of media for entertainment, access to culture, intercultural dialogue, learning and daily-life applications (for instance, through libraries, podcasts)". The Digital Agenda for Europe (DAE) of the Europe 2020 strategy[1] thus commits the EU and member states by 2012 to "develop tools to identify and recognise the competences of ICT practitioners and users" and calls for "increased learning, recognition about digital competences in formal education and training systems, as well as awareness raising and effective ICT training and certification outside formal education systems, including the use of online tools and digital media for re-skilling and continuing professional development". Intermediaries like telecentres are seen as a key agency in supporting the over-arching objectives and targets of EU2020 as well as the specific DAE objective of promoting Internet access and take-up by all European citizens, especially through actions in support of digital literacy and accessibility.

1.3   Structure of this report

This report is set out as follows:

- Following this Introduction, *Section 2* presents the literature review at Policy level with the intention to link theory and practice to high-level policy goals.

- *Section 3* presents the methods to assess the impacts of e-Inclusion actors which represent the practitioner point of view. This includes:
    - a mapping and analysis of the Scenarios 1. 2 and 3 identified by the MMTSO study (in section 3.4, 3.5 and 3.6 respectively), including an analysis of the indicative case study examples that were selected to illustrate how the scenarios are applied in real-world interventions
    - *Section 3.*7 presents the results of the second 're-appraisal' – phase of the documentation and analysis, including key findings from the validation Workshop and the results of the additional case study analysis.
- Finally, in *Section 4,* we present the overall conclusions and recommendations, in perspective of the next phase of MIREIA.

The report also provides a summary of Policy frameworks for e-Inclusion where are included set of **indicators** for different policy areas in *Annex I*.

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[1]   Available: http://ec.europa.eu/information_society/digital-agenda/index_en.htm

2.   Policy level

2.1   Basic concepts and definitions

Information and Communication Technologies (ICT) play an essential role in supporting daily life in today's digital society. They are used at work, to stay in touch with family, to deal with public services as well as to take part in culture, entertainment, leisure and political dialogues. Within this context, the EU policy on e-Inclusion aims to achieve that 'no one is left behind' in enjoying the benefits of ICT. **e-*Inclusion means both inclusive ICT and the use of ICT to achieve wider inclusion objectives***. It focuses on participation of all individuals and communities in all aspects of the Information Society. **e-Inclusion policy, therefore, aims at reducing gaps in ICT usage and promoting the use of ICT to overcome exclusion, and improve economic performance, employment opportunities, quality of life, social participation and cohesion.**

The eInclusion concept in the literature has been mainly defined in relation to what have been discussed in the political arena. In this respect, digital inclusion goals have recently been taken further in the context of the **Digital Agenda for Europe** (2010), which, in **Pillar 6 *on Enhancing digital literacy, skills and inclusion,*** calls for '*multi-stakeholder partnerships, increased learning, recognition of digital competences in formal education and training systems, as well as awareness raising and effective ICT training and certification outside formal education systems, including the use of online tools and digital media for re-skilling and continuing professional development*'.

According to the EU funded **'Vienna Study'** (Codagnone et al., 2009)[2] digital exclusion/inclusion can be considered ''*the quintessential form of social exclusion/inclusion today. As our everyday work lives are increasingly entangled in activities and relations enabled by ICT, being digitally excluded is a new source of inequalities as it can result into exclusion from relevant networks and social relations, jobs and leisure opportunities, and from informed participation to the public debate*'[3].

The opportunities offered by ICT require co-ordination and partnership to ensure that potential benefits are enhanced and shared by all. However, these opportunities are not yet fully understood by many stakeholders. One way of tackling this challenge is recognized to be the clear identification of the **economic and non-economic benefits of eInclusion**, since this should act as a catalyst for awareness and action amongst those not yet convinced of the importance of eInclusion policies and related support initiatives. This should in turn persuade policy-makers to place greater emphasis on eInclusion if they believe economic as well as social and equity benefits will arise from increasing the pool of digitally active citizens and enhance their socio-economic integration.

This is of particular importance under today's conditions of financial turmoil and socio-economic crisis where governments are facing increasing budget constraints and are in search of new ways to address the mounting unemployment and limited growth in most European countries.

In this connection, a specific focus of the MIREIA framework is placed on the role ICT can play for enhancing **employability**, which is defined as ***'the combination of factors and processes that enable people to progress toward or find employment, to remain employed, and/or to advance in the workplace'*** (Brown, Hesketh, & Williams, 2003; Fugate, Kinicki, & Ashforth, 2004; Houston, 2005).

In this regard, the literature reviewed as part of this research and previous works, shows that the adoption of ICT increases the demand for skilled workers and reduces that for unskilled workers.

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[2] See 'Inclusive Innovation for Growth and Cohesion: modelling and demonstrating the impact of eInclusion' also known as 'Vienna Study', as it was launched by Unit ICT for Inclusion of DG Information Society and Media with the aim of providing input to the Ministerial Debate on eInclusion that took place in occasion of the Ministerial Conference on eInclusion held in Vienna (30 November- 2 December 2008).

[3] For the theoretical foundations of this claim see for instance the concepts of 'informationalism' or 'informational capitalism' and of 'networked individualism' ad discussed in Castells (1996).

Employment, wage trajectories and labour supply decisions along the life-cycle tend to be affected by the level of digital skills possessed by individuals. Access and ability to use technology affects employability, by shaping the decision to enter the labour market (the labour participation decision) and of investing in training, and the likelihood of obtaining/maintaining a job.

2.2   Overview of policy-oriented studies on eInclusion

The **European Commission i2010 policy framework**, by calling for an inclusive Information Society and by stressing the importance of demonstrating tangible impacts, has set in motion an important process in the domain of eInclusion. A landmark in this process was the 2006 Riga Declaration[4] where the European governments committed themselves to clear, bold, and measurable targets. The 2007 Communication on eInclusion stressed the potential tangible and quantifiable benefits estimated in its supporting Impact Assessment[5].

The **Vienna Study** (Codagnone, 2009) is the starting point to set up the scope and aims of our research. It contains evidence based eInclusion policy making and impact measurement and, some conclusions about the impact of ICT on productivity, wages and employment, with implications from an eInclusion perspective. Some of the more relevant conclusions are, for instance, the statement that *ICT revolution improves the position of highly skilled and highly educated workers, worsens that of low skill and low education workers*, and *is making life much harder for older workers as it produces a fast depreciation of their human capital, even for those possessing high level education[6]*.

In addition, a conceptual measurement framework and several measurement indicators were elaborated. Finally, it was also proposed a General Model to establish several causal links between eInclusion support initiatives and socio-economic impacts, which is strongly supported by the relevant theoretical literature. On the contrary, the study highlights the lack and need of using micro-economic models and the building of longitudinal datasets.

The Vienna Study also leveraged and analysed the empirical evidence from another project funded by DG Information Society and Media on **ICT potential for the economic and social inclusion of immigrants and ethnic minorities** (released by the Join Research Centre of the European Commission Institute of Prospective Technological Studies, IPTS)[7]

Complementary to the Vienna study is the **European Index of Digital Inclusion** (EIDI)[8] intended to monitor and capture the level of advancement of digital inclusion in the EU27 and in all member countries and compare progress made between 2004 and 2009. The composite and longitudinal nature of the EIDI – based on the indexes measuring the sub-dimensions of access, usage and impact from 2004 to 2009 – would contribute to individuate the main obstacles to close the digital exclusion and to monitor progress that have been made in terms of the Riga targets. Its main objective is to provide policy makers with a useful tool to benchmark and assess the e-Inclusion processes.

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[4] See Riga Declaration at:
http://ec.europa.eu/information_society/events/ict_riga_2006/doc/declaration_riga.pdf
[5] European Commission. (2007). Impact Assessment of the European i2010 initiative on e-Inclusion. Communities. http://ec.europa.eu/governance/impact/ia_carried_out/docs/ia_2007/sec_2007_1469_en.pdf
[6] Codagnone, C. (2009). Vienna Study on Inclusive Innovation for Growth and Cohesion: Modelling and demonstrating the impact of eInclusion. *Measurement*, (March), 1-106.
[7] Codagnone, C., & Kluzer, S. (2011). ICT for the Social and Economic Integration of Migrants into Europe. doi:10.2791/53261
[8] Bentivegna, S., Guerrieri, P. (2010). *Summary report of the first part of the study: Analysis of e-Inclusion impact resulting from advanced R & D based on economic modelling in relation to innovation capacity , capital formation , productivity , and empowerment- Composite index to measure digital inclusion.*

Several studies have being carried out by JRC-IPTS in this domain. Of relevance to our research it can be mentioned:

- **The Inventory of Good practices in Europe that promote ICT for socio-economic integration in culturally diverse contexts** (draft report) reports under 2.5.9 Monitoring and Impact Assessment: *The analysis of initiatives shows that 25% of the sample did not carry out any monitoring or impact assessment activities at all. As reported by previous research on impact assessment of eInclusion initiatives (our initiatives would fall within this broad definition), it turned out that most projects simply don't have quantitative and qualitative data with which to validate their impact. Sometimes, even though they do gather data, they don't systematically apply monitoring and evaluation methodologies to their work. It was recognised by the interviewees that evaluation and impact analysis in the field of initiatives targeting IEM was still relatively under-developed. Interviewees highlighted the following key challenges:*

  - *A lack of accepted and tested methods, tools and indicators to asses the social and economic impact of ICT-driven initiatives;*

  - *Impact assessment is still largely perceived as a "donor/funder requirement" rather than a "management tool". As a consequence, impact assessment is generally not included in the design of the project;*

  - *A lack of resources (financial and human) to implement and maintain monitoring and assessment actions (Groeneveld and Haché 2008).*

This project reports **Methods used for measuring and assessing impact** (Mapping and assessing the impact of ICT-based initiatives for the socio-economic inclusion of youth at risk of exclusion) (draft report) contains the following conclusions:

- The literature review showed that the 'gold standard' in impacts assessment is the experimental approach, using randomised controlled trials (RCTs). These are difficult to implement and not always appropriate in social interventions.

- There has been an increasing call for the use of different assessment paradigms and different impacts assessment approaches to suit different circumstances. Alternative methods to the experimental approach include constructivist; realistic and theory of change evaluation.

- The literature review suggested that impacts assessment in the domain of ICTs for at risk young people is under-developed, and there is a lack of an 'evaluation culture'. This finding was reinforced by the results of the initiatives survey and case studies.

2.3 The role of eInclusion intermediaries for improving socio-economic inclusion

Reviewing the literature with a specific focus on the role of intermediaries, interesting findings and methodologies issues have arisen.

The **e-Inclusion initiatives from private and non-profit European entities**[9] study provides evidence and analysis for the European Commission on support mechanisms and initiatives involving the private and third sectors in the field of eInclusion, as input for the idea of "European eInclusion Compact" suggested in 2009 by the Vienna study on eInclusion impact. In the 12 case studies

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[9] Osimo, D., & Codagnone, C. (2010). e-Inclusion initiatives from private and non-profit European entities. http://ec.europa.eu/information_society/activities/einclusion/library/studies/einclusion_initiatives_in_europe/index_en.htm

included in the report are reflected the views of practitioners on how to improve eInclusion policies in general and, in particular, the support actions managed by the European Commission. Indeed, while the primary goal of the study was about fact-finding and analysis, looking at success factors and barriers of private and third sector eInclusion initiatives, it also gathers views from eInclusion initiative managers on mechanisms for collaboration with the Commission in post i2010 EU policy.

The **Comparative Study of Public E-Service Centres in Europe**[10] stated that, taking into account the results of the interview process, although a number of names and abbreviations exist for the projects under research: *PICs (Public Internet Centres), PIAPs (Public Internet Access Points), Telecentres, Digital Playgrounds, Cyberbases etc.,* these names no longer fully reflect the objectives and the activities carried out by the projects as they are no longer simple physical locations to access ICT. Therefore they use abrevation PESCE (**Public E-Service Centres in Europe**) to name the different actors in their research. Another relevant finding regarding impact assessment: Although much of the research of this report targeted evidence- based user-benefits of the PESCE, it turned out that most projects simply don't have quantitative data to validate their impact. There is a fundamental lack of widely accepted standards for impact assessment, monitoring mechanisms and evaluation methodologies for PESCE. Monitoring in PESCE is carried out on a random basis rather than as a systematic activity.

It also relevant for the aim of our research to have a look at other studies carried out by DG INFSO studies in the field of eInclusion policies and related impact. These include:

- **eInclusion public policies in Europe**[11] offers a clustering of eInclusion Public Policies into six families of eInclusion public policies

- Relevant practices on ePractice in www.epractice.eu

With regard to the latter, it is worth mentioning the Workshop Report: **Digital Competences for Social Inclusion Actors and Intermediaries**[12] as a state-of-the-art of the general picture of the eInclusion intermediaries.

This report states *intermediaries and social actors (caregivers, e- facilitators, social workers, etc.)[13] play a key role in the process of acquisition of digital competences by disadvantaged target groups (the elderly, the disabled, immigrants, young people at risk, the long-term unemployed, etc.) and in encouraging their active participation in the Information Society. But intermediaries need proper preparation for this role, which embraces digital skills plus a wide range of other competences, the acquisition of which can be facilitated/accelerated with help of ICT. Recognising the key role played by intermediaries and social actors, the Digital Agenda for Europe already foresees different mechanisms to help them to acquire digital competences and other knowledge and competences through the use ICT, which now need to be put in practice.*

This workshop has shown that a number of good practices have already been developed in the Member States and at pan-European level. The generalisation of results at European level, and the replication and transfer of results of this kind of initiative across borders could accelerate the process described above. However, a number of general and specific constraints were identified during the workshop, which specific European policy options could address. Workshop participants identified and discussed an initial list of policy options for a range of goals, including –among others- the

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[10] Groeneveld, S., & Haché, A. (2008). Comparative Study of Public E-Service Centres in Europe A contribution to the " e-Inclusion: be part of it!" campaign of the European Commission.
http://ec.europa.eu/information_society/newsroom/cf/itemlongdetail.cfm?item_id=4259
[11] See:
http://ec.europa.eu/information_society/activities/einclusion/library/studies/einclusion_policies_in_europe/index_en.htm
[12] Rissola, G., & Centeno, C. (2011). *Digital Literacy Workshop Report : Digital Competences for Social Inclusion Actors and Intermediaries*.
[13] Note: Previously, in the report, intermediaries where listed as *Public Internet Access Points, public libraries, third sector organisations including NGOs and social workers, etc.*

deployment of more Public Internet Access Points (PIAPs), the recognition and certification of emerging job profiles in the (digital/social) inclusion field, structuring the digital inclusion training sector, promoting targeted awareness raising on the benefits of acquiring digital competences and actively participating in the Information Society, or setting up a multilingual good practice exchange platform, taking full advantage of web 2.0 potential.

Linking the review of intermediaries with methodological issues, the report **Under the Radar: The Contribution of Civil Society and Third Sector Organisations to eInclusion** [14]**,** affirms that the vast majority of the eInclusion initiatives in the field are carried out by the third sector and public sector organisations. In order to better understand how EU-third sector synergies could be strengthened in favour of the eInclusion process and, given the scarcity of data available about the structure, characteristics, needs and challenges of the civil society and the Third Sector Organisations (TSO). The study, on which this report is based, starts by analysing the European policy framework for the third sector, and clarifies the nature and specificities of civil society and TSO activities and their contribution to social innovation. It analyses TSOs' contribution to eInclusion objectives and makes an attempt to classify the different types of TSO from this perspective, providing many inspiring examples of TSO actions. Finally, it proposes some policy options to support and further develop the role that this sector plays in achieving eInclusion goals.

Furthermore, to further deep our understanding of the role of eInclusion Intermediaries and build a conceptual framework in which they play a key role, (see below *Towards a shared taxonomy of eInclusion intermediaries*), the paper **Intermediaries in E-Inclusion: A Literature Review**[15] **try** to conceptualise intermediaries focusing on eGoverment as well as illustrating the active role of intermediaries as *"institutional carriers".*

It also states that *the research agenda can be enriched with a number of interesting possibilities,* and in particular it highlights the following:

- the possible contribution of the intermediaries to the (re)construction of relations of trust between government and citizens;

- the opportunity to analyze how the integration of old and new channels reflects on the netwok of governance systems;

- the search for the most appropriate ways of combining diverse types of intermediaries to ensure the maximum return in terms of social value;

- the analysis of the policy implications (especially the ethical issues) that might derive from the growing use of public employees (e.g., librarians) in roles other than their own, that is, as social case workers.

2.4   Methodologies and frameworks to assess impacts of eInclusion-related policies

From a methodology viewpoint, there are some relevant studies, including the Vienna study mentioned above, that should be highlighted:

- **The Vienna Study** (Codagnone, 2009). It contains evidence based eInclusion policy making and impact measurement and, some conclusions about the impact of ICT on productivity, wages and employment. with implications from an eInclusion perspective. Some of the more relevant conclusions are, for instance, the statement that ICT revolution improves the position of highly skilled and highly educated workers, worsens that of low skill and low

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[14] Haché, A. (2011). *Under the Radar: The Contribution of Civil Society and Third Sector Organisations to eInclusion*. (C. Centeno, Ed.). European Commission, Joint Research Centre, Institute for Prospective Technological Studies.

[15] Sorrentino, M., & Niehaves, B. (2010). Intermediaries in E-Inclusion: A Literature Review. *Sciences-New York* (pp. 1-10).

education workers, and is making life much harder for older workers as it produces a fast depreciation of their human capital, even for those possessing high level education.

- **European Index of Digital Inclusion** (EIDI)[16] wanted to monitor and capture the level of advancement of digital inclusion in the EU27 and in all member countries and compare progress made between 2004 and 2009.

- **Impact assessment of ICT for Development Projects: A compendium of approaches**[17]**.** This working paper explains the basis for understanding impact assessment of ICT4D projects, and a summary of the 11 most cited approaches or assessment frameworks that can be used in evaluating ICT for development projects**.**

- **Benchlearning study on the economic and social impact of eInclusion policies**[18]. The study provides a indicator framework that facilitates assessing the impact of any number of projects. In addition, the study has delivered a self-assessment tool for project managers to determine their own strengths and weaknesses and supports further improvement to maximize impact. And, finally, the study delivers a Method Handbook that includes practical guidelines developed for the European Commission to support measurement of the impact of eInclusion policies and programs.

- The **Study on Social Impact Assessment as a tool for mainstreaming social inclusion and social protection concerns in public policy in EU Member States**[19] describes, compares and analyses the different ways in which social impact assessment is currently carried out in the EU Member States. On basis of this analysis, it draws recommendations for the implementation of effective social impact assessment systems and for effective social impact analysis**.**

- Regarding frameworks**, Digital Competence in Practice: An Analysis of Frameworks[20],** defines "being digitally competent" as "the ability to understand media (as most media have been/are being digitalized), to search for information and be critical about what is retrieved (given the wide uptake of the Internet) and to be able to communicate with others using a variety of digital tools and applications (mobile, internet). Additionally, "Digital Competence"[21] is defined as "*the set of knowledge, skills, attitudes (thus including abilities, strategies, values and awareness) that are required when using ICT and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socialising, consuming, and empowerment".*

- At a national level, the study on **The socio-economic impact of the Networks of Telecentres of the Association Telecentre Network Community) Impacto Socio-Económico de las Redes**

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[16] European Commission. (2010). *Analysis of e-Inclusion impact resulting from advanced R&D based on economic modelling in relation to innovation capacity, capital formation, productivity, and empowerment. A composite index to measure digital inclusion in Europe*
http://ec.europa.eu/information_society/activities/einclusion/library/studies/indicators/index_en.htm
[17] Heeks, R. and Molla A. (2009). Impact assessment of ICT for Development Projects: A compendium of approaches, *Development Informatics Working Paper Series*
[18] Capgemini. (2012). *Benchlearning study on the economic and social impact of eInclusion policies*.
[19] European Commission, (2010), *Study on Social Impact Assessment*.
[20] Ferrari, A. (2012). *Digital Competence in Practice: An Analysis of Frameworks.*
[21] The recommendation of the European Parliament and the Council (2006) recognized **Digital competence as one of the eight Key Competences for Lifelong learning** (Communication in the mother tongue; Communication in foreign languages; Mathematical competence and basic competences in science and technology; **Digital competence**; Learning to learn; Social and civic competences; Entrepreneurship; and Cultural awareness and expression). Digital competence is defined in the Recommendation as involving the confident and critical use of Information Society Technology (IST) for work, leisure and communication.

de Telecentros de la Asociación Comunidad de Redes de Telecentros[22] presents the caracterisation of the telecentres at national level (in Spain) as well as identifying and assessing relevant initiatives. Furthermore, it evaluates the available indicators of the Telecentre Network and tries to set up a link between them and the socio-economic impacts at national level.

- In the UK, the report **Champion for Digital Inclusion**[23] include an assessment of the potential scale of the ´digital dividend´ to the UK of achieving greater digital inclusion as well as the expected economic benefits of reducing digital exclusion in key areas. After that, a new report came out **Evaluating the work of the UK Digital Champion and Race Online 2012**[24]**,** whose objective is to document the work of the UK Digital Champion (previously MLF was the Champion for Digital Inclusion) and evaluate effectiveness, impact and value for money since the appointment.

- Also, the **study Economic benefits of digital inclusion:building the evidence**[25] aims to attribute a monetary value for the benefits digital inclusion can bring to five core groups: individual people, private sector organisations, the Government, the wider economy and society as a whole. **Joining the Dots**[26], identified the main motivations that led organisations to undertake a social impact measurement exercise; what approaches and tools are most commonly being used to measure social impact; the costs incurred by organisations measuring impact and undertook an analysis of the methods and tools used.

- **A Benefits Framework for Social Inclusion Initiatives**[27], documents the results of a project to research the types of benefits that emerge from social inclusion projects, in particular those which make innovative use of technology.

- The report **Assessing the economic benefits of digital inclusion**[28] quantify in \$4.1 millions the benefits in employment and education, through additional skills and access to new jobs in two disadvantaged communities in Victoria (Australia).

- Finally, regarding methodologies of related fields that could be suitable to measure the impacts of ICT for inclusion, some of the more relevant are those related to the logics of intervention and indicators applied in the framework of ESF. In this sense the literature is very vast, buy one of the recent publiccayion is **Developing logics of intervention and related common indicators for the next ESF Operational Programmes**[29].

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[22] Fundación CTIC. (n.d.). *Impacto Socio-Económico de las Redes de Telecentros de la Asociación Comunidad de Redes de Telecentros*

[23] PriceWaterHousecoopers. (2009). *Champion for Digital Inclusion The Economic Case for Digital Inclusion*.

[24] Capgemini. (2012). *Evaluating the work of the UK Digital Champion and Race Online 2012.*

[25] UK Online Centres. (2008). *Economic benefits of digital inclusion:building the evidence*.

[26] East of England Development Agency. (2010). *Joining the Dots*.

[27] Digital Inclusion Team (City of London) and Tech4i2 Ltd.(2010). A Benefits Framework for Social Inclusion Initiatives.

[28] ATKearny. (n.d.). *Assessing the economic benefits of digital inclusion.*

[29] EPEC. (2011). *Developing logics of intervention and related common indicators for the next ESF Operational Programmes.*

3.   Practitioner level

3.1   The MMTSO study background and basic definitions

The aims and objectives of MMTSO can be set against the background of an increasing recognition that there is a need for more effective impact assessment approaches that incorporate the 'rigour' of 'experimental' approaches – like the use of randomised controlled trials – but at the same time reflect the context and needs of grass roots actors.

In this respect, 'Grass roots organisations' are difficult to define. The term has no recognised common meaning in the literature, although some definitions have been attempted. The American sociologist David Smith saw them as formal non-profit groups with a purely local dimension that are, to a high degree, autonomous and based on the voluntary work of their members.[30] The European Commission Civil Society helpdesk defines them as follows "A grassroots organization is a self-organized group of individuals pursuing common interests through a volunteer-based, non-profit organization. Grassroots organizations usually have a low degree of formality but a broader purpose than issue-based self-help groups, community-based organizations or neighbourhood associations."[31]

In the MMTSO study we have therefore adopted a loose definition of grass roots organisations, This defines grass roots organisations as "Telecentre networks (TC) and any other kind of organisation aimed to eInclusion and/or Social Inclusion mediated by ICT (libraries, living labs, NGOs, social enterprises, etc)" and defines their field of application as "public Internet access services like telecentres, libraries, as well as public, private and non-profit organisations delivering social services to their customers with help of ICTs (including digital inclusion services like digital literacy training, etc."

Regarding methodologies, Randomised controlled trials (RCT's) are seen as the 'gold standard' in evaluation and impacts assessment.[32] In principle, they collapse the messiness of complex interactions into relatively simple dichotomies: measurable effect or not measurable effect; positive outcome or negative outcome. They establish causal relationships between an intervention and its effects. They predict outcomes and impacts. RCTs are increasingly seen as inseparable from the promotion of evidence-based practitioner culture because of this capacity to reveal causal relationships and to control for selection bias and for the influence of intervening factors unrelated to the effects of the intervention.[33] This explains the strong pressure exerted in recent years by funders and donors to migrate 'experimental' impacts assessment approaches from the medical world to the complex world of social programmes and interventions. In pursuit of the promotion of an 'evidence-based culture', good practice examples like the Cochrane Database of Systematic Reviews in the UK reflect a drive towards the increasing institutionalisation of RCTs within large scale public programmes. In the USA, for example, the Family Support Act of 1988 made it a condition of funding that the new 'welfare to work' programme initiated by the federal government (the JOBS programme) had to be evaluated using random assignment. In the current climate of financial belt-tightening, the need to demonstrate that real changes can be attributed to investment in social programmes by using robust evaluation methods has become increasingly important in policy and practice across the EU.

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[30]   Smith, D.H. (1997c) 'The Internatinal History of Grassroots Associations'. *Internatinal Journal of Comparative Sociology* 38 (3–4): 189–216.

[31]   Anheier, H., List, R. (2005) *Dictionary of Civil Society*. London: Routledge.

[32]   Campbell, D.T. and J.C. Stanley, *Experimental and quasi-experimental designs for research*.Chicago, Rand-McNally, 1973.

[33]   St Leger, AS, Schneiden H, Walsworth-Bell JP (1992) *Evaluating Health Services' Effectiveness*, OU Press, Milton Keynes.

There is some evidence that RCTs can be used to successfully evaluate the effectiveness of social interventions, even large scale public programmes.[34] In a recent example, Banerjee and Duflo's work with the MIT Poverty Action Lab had by 2010 involved more than 240 RCT-based experiments in over 40 countries to establish what kind of poverty-reduction interventions work under which circumstances in international development.[35] But what is striking about the Poverty Action Lab experience is how it highlights the key importance of contextual factors in contributing to impacts. As Banjeree and Duflo argue, there is no evidence that the 'Big Idea' of development aid per se will deliver change. But there is evidence that tiny adjustments to the delivery of aid can significantly increase its effectiveness. When aid is carefully packaged to fit the specific socio-cultural lifeworld of its target beneficiaries, it begins to deliver results.

Equally, Banjeree and Duflo's work highlights the importance of being able to handle contextual factors when using experimental methods like RCTs to assess impacts in social interventions. A consistent problem identified in the literature on evaluation and impacts assessment in these complex fields is the difficulty in maintaining the 'temporal priority' required in RCTs - the assumption that a suspected cause precedes an event (for example, in clinical trials that the application of a particular drug will 'cause' the relief of particular symptoms). There are a number of factors that conspire to undermine temporal priority: history effects (the effects of 'external' variables that may have an influence on the outcome of the intervention); selection effects (statistical bias in the treatment and control groups); instrumentation effects (for example using measurement tools in different settings); attrition (uneven loss of participating subjects in treatment and control groups). In short, the range and complexity of 'intervening variables' that may influence the effects of a social intervention are potentially unmanageable. As Stromsdorfer has argued, experiments involving social interventions "simply cannot bear the expense of a sample size large enough to measure all of the possible combinations of treatment mix and client characteristics that characterise the operational environment of a program at a given point in time and as it changes over time".[36]

In the Banjeree and Duflo case, however, it is possible to distinguish two key features that appear to have facilitated the successful application of RCTs in assessing the impacts of development aid. Firstly, instead of trying to create a causal attribution link between a complex programme and changes in beneficiary status, they focused on assessing the impacts of relatively small changes on people's lives – for example the effect on educational performance associated with a child de-worming programme in Kenyan schools; the effect on family health associated with 'nudging' people to take part in an immunisation programme with an incentive of 2 pounds of lentils. This approach, it would seem, had the effect of considerably reducing the range and complexity of the intervening variables that needed to be handled in measuring impacts using RCTs.

Secondly, they complemented the use of RCTs with impact assessment methods that have been shaped not by the 'experimental' paradigm of evaluation but which are drawn from constructivist and participatory paradigms. They spent time talking with people on the ground and listening to their experiences, in order to 'unravel the mystery of poor people's lives'. This echoes an increasingly influential view in the international development field that development agencies are far more effective when they 'work with the grain' of the societies that host them.[37]

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[34] See, for example, Riccio, J 'Evaluating policies through random assignment experiments: lessons from the US', *PSI seminar paper*, 1995; Oakley, A, Fullerton, D, Holland, J, Arnold, S, France-Dawson, M, Kelly, P, McGrellis, S and Robertson, P (1994) 'Young people and sexual health: a review of the effectiveness of interventions', *SSRU,* London.

[35] Banerjee*,* A, and E Duflo (2011). *Poor Economics*: A Radical Rethinking of the Way to Fight Global Poverty. New York: Public Affairs.

[36] Stromsdorfer, E.W., (1987), Evaluating CETA: advances in assessing Net Program Impact. *Evaluation Review,* 11:4.

[37] Booth D (2011) Working with the Grain? Rethinking African Governance, IDS Bulletin, Volume 42, Issue 2, pages 1–10, March 2011.

3.2 The MMTSO aims and tasks

It is within this complex space of balancing the need for robust, evidence-based impacts assessment and 'working with the grain' of grass-roots organisations providing ICT-mediated social support that the MMTSO study is positioned. The **challenge for MMTSO has been to integrate different elements of impacts assessment that are often oppositional,** and sometimes incompatible, i.e.:

- mapping and assessing the conceptual and methodological 'landscape' of impacts assessment in order to ground the MIREIA evaluation framework within a solid epistemological and ontological foundation.
- identifying appropriate and relevant generic components of the framework, that can help contribute to promoting standardisation and shared good practice in the field, in order to improve the quality and robustness of the evaluation data produced by grass-roots organisations.
- achieving a balance between, on the one hand, supporting standardisation and generalizability through the use of a 'generic' framework, and at the same time reflecting the diverse social and cultural contexts in which grass-roots organisations deliver specific interventions that are tailored to the complex needs of local populations.
- reflecting in the framework how grass roots organisations develop their own ways of assessing whether and in what ways they make a difference, through their interaction in 'communities of practice'.

Another research challenge for MMTSO is the lack of an established evidence base on how eInclusion actors evaluate what they do, and what their actual impacts are. There are no systematic literature reviews in this field[38],[39] and although some impact assessment methods are currently being developed,[40] the data gathered by the initiatives are generally not sufficiently robust to evaluate their outcomes and to validate their impact. There is no established 'evaluation culture' and the evaluation that is carried out reflects differing, sometimes oppositional, approaches and methods; different classifications systems, a scarcity of data, and scattered initiatives characterized by under-developed evaluation skills and capacities.[41] A related issue in the impacts assessment of ICTs is what to measure, and what indicators to use. There has been a tendency to conflate different types of effects as 'impacts', and in particular a lack of definition on differences between 'outputs' – the concrete products of an initiative; outcomes – the short-term effects associated with utilisation of these outputs, and 'impacts' – the longer-term effects derived from outcomes.

In the context of MIREIA, **MMTSO is an exploratory study whose aim is to map and review the evaluation and impact assessment methods that have been developed and used to understand the social and economic impact of these eInclusion actors, with a focus on quantitative approaches and production of measures that relate to policy goals**. **The specific objectives and key tasks of this exploratory study are**:

- to identify and document at least 10 relevant methods used in Europe and internationally by a) funding programmes, b) organisations and c) projects/initiatives to account for and demonstrate the achievement of their digital and/or social inclusion goals to their stakeholders, in developing their relations with other stakeholders.

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[38] Rissola,G and C. Centeno, (2010), Digital Literacy ePractice Workshop: Digital Competences for Social Inclusion Actors and Intermediaries.

[39] Cullen, J, C Cullen, J Moltesen, (2010), Mapping and Assessing the impact of ICT-based initiatives for the socio-economic inclusion of young people at risk of exclusion', IPTS, Seville.

[39] Haché, A., (2011), Under the Radar: The Contribution of Civil Society and Third Sector Organisations to eInclusion,JRC report, 24857 EN.

[40] College d'Europe, (2010) Study Analysis of e-Inclusion Impact Resulting from R&D Based on Economic Modelling in Relation to Innovation Capacity, Capital Formation, Productivity, Empowerment.

[41] Cristiano Codagnone, (2009), Vienna Study on Inclusive Innovation for Growth and Cohesion: Modelling and demonstrating the impact of eInclusion

- to analyse the relevance of the selected methods in terms of: pertinence to the scope of this study; extended acceptance among the stakeholders groups; ease of practical implementation; range of outcomes analysed; strengths, weaknesses, opportunities and threats (SWOT) of the method.

- to identify from the above the most appropriate methods, on the basis of a list of criteria to define "appropriateness".

- to present and discuss the selected most appropriate methods in a dedicated one-day workshop.

- to document and analyse in detail three shortlisted methods that are retained by IPTS as being more relevant, and at least one practical implementation (case study) of each one.

- to provide conclusions and make recommendations aimed at supporting the final goals of the "Measuring the impact of eInclusion actors on Digital Literacy, Skills and Inclusion goals of the DAE" (MIREIA) research project.

In order to meet the research and policy challenges set out above, and to support the MIREIA objectives, MMTSO has undertaken a sequence of research activities, following a 'realist review' methodology (Pawson, 2005).[42] The end result of the review is this Deliverable - a Report containing a 'feasibility analysis' of three different impacts assessment 'methods' that were identified as the most relevant and promising methods in terms of providing inputs to the framework to be developed in the forthcoming MIREIA project.

- The study began with an initial Scoping Exercise, which involved: a Data Audit (identifying key documents and informants); some interviews with Experts in the field; entering examples of impacts assessment approaches into a database, with a basic profile of each. Just over 80 examples of approaches were identified and put into the database.

- Following this audit, Task 1 of the study involved reducing the 'long list' of the 81 examples identified in the Data Audit and reducing it to a short-list of 11 'most relevant' approaches. This was done by developing a set of 'inclusion-exclusion criteria' (measuring the relevance of the approach; the robustness of the data; the accessibility of the data) to select the most relevant examples. Following the selection, each of the short-listed examples was documented using a set of descriptors covering attributes like what kinds of outcomes and impacts were aimed at; what approaches and methods were used to measure these outcomes and impacts. The documentation was based on material drawn from two main sources: content analysis of reports and other textual material; the results of an on-line survey of key informants involved in applying each approach in ICT-based initiatives.

- Task 2 - Methods Analysis – then compared the characteristics of the 11 approaches and assessed their strengths and weaknesses, using: relevance analysis; SWOT analysis; consistency with the aims and objectives of the Digital Agenda for Europe; transferability to similar domains and to EU-wide impacts assessment. The aim of this task was to present recommendations on which three of the 11 approaches documented and analysed should be selected for further in-depth analysis.

- Task 3 of the study then entailed selection of the three 'most relevant' Methods. On the basis of the scores on the above criteria, three approaches were selected for further analysis: VET4e-I; Social Impact Demonstrator Projects; International Computer Driving License.

- The next activity – Task 4 – entailed initial detailed documentation and analysis of the three selected methods. This activity covered a more detailed analysis of the three selected methods chosen in Task 3, with particular reference to their feasibility as inputs to developing the MIREIA framework, and with reference to illustrative case studies of their use by grass roots organisations. The output of this activity was an initial draft version of

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[42] Pawson R, Greenhalgh T, Harvey G, Walshe K. (2005), Realist review--a new method of systematic review designed for complex policy interventions. J Health Serv Res Policy. 2005 Jul;10 Suppl 1:21-34.

Deliverable 3 (Report on feasibility analysis of three selected methods) – in the form of a 'Briefing Paper'.

- This Briefing Paper was presented at a Validation Workshop (Task 5) held at the IPTS offices in Seville, and attended by a broad spectrum of experts (including academics and practitioners involved in grass-roots interventions). The aim of the workshop was to critically review the MMTSO results, particularly the draft Deliverable 3, and to further develop the study outputs, including its key conclusions and recommendations, in the broader context of MIREIA.

- This current Report covers the final activity of MMTSO – Task 6 - Final detailed documentation and analysis of the three selected methods. This Final Report provides conclusions and recommendations for the next phase of MIREIA, and incorporates the results of the Validation Workshop. This current Report includes additional case study analysis of examples of the use of impacts assessment methods in real-world 'grass roots' interventions, incorporating an example not previously covered by the study but presented in the Validation Workshop[43].

3.3 Methodological approach

3.3.1 Initial selection of three 'most relevant' methods

The selection of three impacts assessment approaches for detailed documentation and analysis can be seen as the end result of a process of narrowing down the diversity of approaches used in the field. As noted above, the methodology for Task 1 – identification and documentation of assessment methods – involved as a first task applying a set of quality and relevance criteria to the 81 Impacts Assessment items identified and categorised through the Data Audit in order to produce a short-list of items. This was done using a checklist of six assessment criteria covering: domain relevance; target group relevance; access to data; timeliness; quality; comprehensiveness. Each item in the database was then scored according to the checklist, and ranked in relation to their cumulative score. This produced a short list of 11 examples of approaches:

- High Impact Philanthropy - Cost per Impact;
- Personalisation By Pieces (PbyP);
- User Surveys: IMLS National Study on the Use of Libraries, Museums and the Internet;
- ISITI-CoEri;
- VET4e-I;
- Social Return On Investment (SROI);
- Input-Output approach: Socio-economic impact of Spanish Telecentre networks;
- Social Impact Demonstrator projects;
- Gender Evaluation Methodology (GEM);
- International Computer Driving License;
- Hybrid approach - Unlimited Potential.

The next stage in the review entailed a more detailed profiling and documentation of the eleven shortlisted IA items. This was done using two main data sources and methods of analysis: firstly, content analysis of secondary data – i.e. available textual material - collected for each IA approach

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[43] Detailed documentation of the Scoping exercise and Tasks 1 to 3 can be found in Deliverable 1 of the MMTSO Study: 'Report on Selection, documentation and analysis of relevant impact measurement methods'. A separate Report – Deliverable 2 of the study – covers the Validation Workshop. It should be noted that the sequencing of the study activities, departed to a limited extent form the work plan initially proposed. This original work plan had scheduled the Validation Workshop as Task 4 (prior to the detailed documentation of the three selected methods) and the main objective of the workshop was to review the selection process prior to more detailed analysis. For logistical and methodological reasons, however, the work plan was re-sequenced.

(books, articles, web-site material) and, secondly, a survey of key informants responsible for developing and/or implementing the approach. The survey was designed to supplement the 'desk research' carried out through the content analysis by collecting data on how the IA approaches analysed were used 'on the ground'. It was targeted at key informants responsible for developing and/or implementing the approach. A total of eleven completed questionnaires, one for each of the eleven approaches selected, were collected and analysed.

This next phase of the study entailed further analysis of these eleven methods, with a particular focus on an assessment of their 'relevance' in relation to evaluating the impacts of interventions using ICTs involving grass-roots organisations. This combined four analytical methods: analysis of 'theory of change' and 'logic model analysis'; SWOT analysis; Relevance analysis; Robustness analysis, to calculate an aggregate score for each method to reflect their relevance to the MIREIA objectives.

Theory of change

In this study, we combined theory of change and intervention logic modelling to explore how the conceptual and explanatory features of IA approaches can be more explicitly linked to actual practices (i.e. the implementation and evaluation of a specific intervention involving grass roots organisations) and then associated with particular outcomes and impacts[44]. The approach firstly uses content analysis of relevant documents to develop a theory of change for a specific intervention (by unpacking the 'intervention logic' and how this relates to the underlying conceptual approach) and then constructing a 'logic model' to identify how the overall 'intervention logic' is applied; how this relates to objectives and results; the method and evidence chosen to assess results and 'goodness of fit' between the intervention logic and the assessment methods chosen.[45]

SWOT analysis

The SWOT analysis was based on an assessment (using content analysis of available documentation, and of the results of the on-line survey) of:
- the strengths of the approach (taking into account factors like relevance to study questions; relevance to target groups; conceptual rigour; accessibility of data; resources and skills required to carry out data collection and analysis).
- the weaknesses of the approach (taking into account the above factors).
- the 'opportunities' provided by the approach, defined as: 'How far and in what ways this IA approach can be applied in environments that involve grass roots interventions that use ICTs for social/digital literacy purposes'.
- the 'threats' against using the approach, defined as ' The constraints, obstacles and limitations of using this IA approach in environments that involve grass roots interventions that use ICTs for social inclusion and digital literacy purposes.

Relevance analysis

This stage in the methods analysis combined the results of the theory of change, logic model and SWOT analysis, and the results of the data analysed in Task 1, to provide a comparative assessment of the relevance of each of the methods selected. This assessment is based on six criteria:
- "Pertinence" - the degree of relevance to the study research questions, covering: the extent to which intermediaries are reflected and involved in the method (e.g. in design; data capture and analysis); the extent to which method captures their needs and the extent to

[44]   Junge, K., Cullen J., (2011), Developing logics of intervention and related common indicators for the next ESFOperational Programmes: Final Report, DG EMP, Brussels
[45]   McLaughlin, J.A., Jordan G.B., (1999), Logic models: a tool for telling your program's performance story. Evaluation and Planning 22:65-72.

which data can be used to address them; the extent to which beneficiaries needs are reflected and the benefits for them are captured and measured; the extent to which the ICT contribution to this measurement and assessment is reflected in the method.

- "Acceptance" - the degree of acceptance of the method among the stakeholders groups (donors, policy makers, practitioners, academics) covering: to what extent/how often is this IA method quoted/viewed positively in the literature? How much is it used in the field?

- Applicability – the ease of practical implementation by users (with particular emphasis on available software for data gathering and processing, and staff effort required to collect data).

- Range - the number and quality of outcomes analysed in the approach.

- SWOT results - key strengths set against weaknesses (more strengths than weaknesses; strengths and weaknesses roughly the same; more weaknesses than strengths; no strengths).

- Contextual relevance - the extent to which the conceptual basis of approach supports practical implementation. This criterion is intended to provide an assessment of the extent to which the core concept of the method (what it is supposed to measure) is able to be realised in practice (are the methods used to collect data effective? Do they collect the 'right' data? Do the data and the analysis measure what they are supposed to be measuring?).

Robustness Analysis

In order to highlight the emphasis placed in the study on the collection and analysis of robust evidence-based data on impact, we included in our assessment of the relevance of the short list of eleven methods a calculation to reflect the robustness of the evaluation methodology applied in each example, on the basis of the 'Maryland' and 'Effectiveness Ladder' scales.

The Maryland scale[46] assesses an IA approach on the basis of how far it achieves the following levels:

- Level 1. Correlation between an intervention and a measure of desired impact at a single point in time.

- Level 2. Temporal sequence between the intervention and the outcome clearly observed, or the presence of a comparison group without demonstrated comparability to the treatment group.

- Level 3. A comparison between two or more comparable units of analysis, one with and one without the program.

- Level 4. Comparison between multiple units with and without the program, controlling for other factors, or using comparison units that evidence only minor differences.

- Level 5. Random assignment and analysis of comparable units to program and comparison groups.

The 'effectiveness ladder'[47] applies the following levels:

- Level 0: 'Marketing information' – spreading good news about how things are done.

- Level 1: Expert opinion; descriptive studies; case studies -

- Level 2: Cohort studies – surveys; correlation analysis for example between participation in an initiative and educational performance

- Level 3: Experimental studies – for example user surveys and baseline statistical analysis done before and after the intervention (pre-test/post-test)

- Level 4: RCTs

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[46]   National Institute of Justice (1998).
[47]   Steyaert, (2010), Where the worlds of e-inclusion and evidence based practice meet, Conference on e-inclusion, Antwerp.

Table 1 shows the ranking of the eleven shortlisted methods.

As Table 1 shows , on the basis of the analytical criteria, the approaches that scored highest, in terms of their relevance for MERIEA objectives were: Social Impact Demonstrator Projects; International Computer Driving License; Social Return on Investment and VET4e-I.

Table 1: Ranking of short listed methods

Name of Approach	MIREIA Relevance Score
Social Impact Demonstrator Projects	20
International Computer Driving License	19
Social Return On Investment (SROI)	18
VET4e-I	18
Personalisation By Pieces (PbyP)	15
ISITI-CoEri	15
Hybrid approach - Unlimited Potential	16
High Impact Philanthropy - Cost per Impact	14
IMLS National Study on the Use of Libraries, Museums and the Internet	16
Gender Evaluation Methodology (GEM)	14
Input-Output approach: Socio-economic impact of Spanish telecentres networks	15

3.3.2   Approach used to document and analyse selected methods

Following the detailed analysis of the eleven shortlisted methods, the next phase of the study entailed selection and documentation of the three methods identified as most promising in relation to developing the MIREIA framework.

The methodology used to carry out a detailed documentation and analysis of three most relevant impact assessment methods reflects to some extent a departure from the approach originally envisaged. As outlined above, the original plan was to carry out a more in-depth assessment of the three methods that were identified and selected as most relevant, focusing on their strengths and weaknesses; their transferability to the MIREIA programme, and the extent to which they can be practically and feasibly implemented by target 'grass roots' organisations, like telecentres, libraries, and public Internet access points.

However, the results of the preceding research activities carried out in the study highlighted a number of issues suggesting that a modification to this approach was called for. One key issue has been the definition of the 'unit of analysis' for this detailed documentation. From the outset, the study brief defined the unit of analysis as an 'impacts assessment method'. But what emerged from the review of the literature and practices in the field carried out by our study is a landscape in which boundaries are highly fluid and blurred. On the one hand, a number of 'generic' impacts assessment 'approaches' can be identified that are recognisable as bounded 'methods'. These tend to have 'labels' that are generally understood and are attributed a common meaning and interpretation among academics, practitioners and other stakeholders. Examples include 'logical frameworks' and 'cost-benefits analysis' approaches. Yet even these relatively highly-bounded approaches sometimes deploy different configurations of method –different kinds of methodologies and tools to collect and analyse evaluation data – to achieve a common evaluation objective. We found that, in practice, impacts assessment 'on the ground' usually involves picking and mixing different methods that are drawn from sometimes different evaluation 'approaches' (and from different evaluation 'paradigms'). This means that what is sometimes described in the literature as an 'approach' or a 'method' is a mixture of theoretical constructs, and practices that reflect the particular characteristics of a programme or intervention in which impacts assessment is applied.

This brings into play another set of issues we encountered in assessing the relative strengths and weaknesses of different impacts assessment 'methods'. As noted above, comparing methods in this way pre-supposes a universe of discrete and bounded methods out there and that the 'best' ones can be selected on the basis of their respective attributes. However, the evidence from our literature review, expert interviews and from a survey of IA developers and practitioners tells us that different 'approaches' have different purposes, orientations and epistemological origins, and they tend to be utilised for different contexts.

As Stern observes:

> "It depends on several factors. No single method or tool is 'best'. It's more a matter of appropriateness. The topic of interest is relevant at a general level – i.e. it governs the frameworks and focal topics of investigation. If you are asking questions of economic opportunity or effects on income, economic models might be most appropriate; if the questions being asked are in relation to social justice and opportunity or the social integration of minorities then social-system analyses might be most appropriate.[48]

The use of a particular cocktail of impacts assessment methods in a particular intervention context also reflects the 'values' of practitioners and other stakeholders. As Pawson and Weiss argue, programmes – and their evaluation – can be seen as a 'recursive discontinuous process' which involves a number of complex steps over time, rather than the implementation of a clear, and subsequently unchanging logic at the beginning.[49] All interventions are subject to 'knowledge creep' – that is their vision, logic, objectives and purpose change over time as the intervention develops. Impact assessment therefore needs to be able to capture this evolutionary process and, in particular, how the values of the actors engaged in the intervention shape its evolution and how their practices within the intervention also change it.[50] This view is echoed in the comments both of the experts and of the grass-roots organisations we interviewed in this study, and is also increasingly being called for in broader policy and evaluation practitioner circles.[51,52] What seems to be needed, therefore, is a more 'pluralist' perspective in impacts assessment in the field of ICT-supported social interventions implemented by grass roots actors, one which combines some of the 'rigour' of experimentalism with the stakeholder-orientation espoused by constructivism – a position strongly argued for by Banjeree and Duflo (cited above in Section 1.1).

As Stern argues, selection of an 'appropriate' IA approach depends on a number of factors, including: the 'object' of evaluation; the purposes for which it is commissioned; the capacities and characteristics of different methods – their construct validity/internal validity, external validity; ability to measure and or explain; their requirements for control, large numbers, data availability. He suggests that, in complex social interventions, the 'rigour' promised by experimental methods like RCTs has to be complemented by evaluation methods that can capture context and complexity.[53] This is why emerging impacts assessment approaches are beginning to blend experimental methods with configurational methods and 'fuzzy set Qualitative Comparative Analysis' (fsQCA).[54]

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[48] Source: MMTSO expert Interviews.

[49] Weiss, C., (1995), "Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families." In New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts, ed. James P. Connell et al. Washington, DC: Aspen Institute.

[50] See for example Walshe C, Luker K., (2010), District nurses role in palliative care provision: a realist review. Int J Nurs Stud.

[51] NESTA, (2011), Evidence for Social Policy and Practice: Perspectives on how research and evidence can influence decision making in public services.

[52] Bunt, L., Puttick, R., (2010), Ten Steps to Transformation.
NESTA Blog. See: www.nesta.org.uk/blogs/ten_steps_to_transformation

[53] Stern E., (2007), Contextual Challenges for Evaluation Practice. In Sage Handbook of Evaluation, Eds. Ian Shaw, Jennifer Greene and Melvin Mark, Sage, London.

[54] Ragin, C ., (2007), Qualitative Comparative Analysis Using Fuzzy Sets (fsQCA), Benoit Rihoux and Charles Ragin (editors), *Configurational Comparative Analysis*, Sage Publications, London.

To reflect and address these issues, the approach we have taken for Task 4 of the study - detailed documentation and analysis of three most relevant impact assessment methods – takes as its unit of analysis what we describe as 'scenarios of praxis'. In this context, drawing on hermeneutic and constructivist perspectives,[55,56] 'praxis' is defined as 'the application and evolution of a theory through practice and use'. Our focus here is on how actors involved on the ground in grass roots organisations that are using ICTs to deliver social inclusion objectives utilise and adapt particular theoretical and methodological constructions of evaluation to assess whether and in what ways they are making a difference. We were interested in particular in unpacking how this is done in three particular 'moments' of the impacts assessment 'life cycle':

- outcomes identification, mapping and definition,
- methods and strategies to collect data from primary sources,
- methods and strategies for data reduction.

On the basis of our initial analysis of the 81 impacts assessment 'methods' compiled through the study Data Audit, and the subsequent more detailed analysis of eleven 'most relevant' examples of these methods, we can distinguish three broad clusters of 'scenarios of praxis', shown in the Box below.

Box 1: The three Impacts Assessment 'Scenarios of Praxis'

Scenario 1: Impacts Assessment that has evolved through the activities and interactions of 'communities of practice' that are based in the ICT 'grass roots' world of telecentres, public Internet access points and other similar organisational forms

Scenario 2: Impacts Assessment that aims to reduce impacts measurement to a single metric, often based on social return on investment (SROI)

Scenario 3: Impacts Assessment that focuses on 'outcomes identification'. This typically emphasises evidence-based practice, using participatory and collective 'sense-making' to define and apply outcomes and impacts measurement.

The methodology used to document and assess these three scenarios of praxis combines four elements:

- a 'field context' dimension, reflecting the 'field' in which IA methods are used (for example broad-based social philanthropy; digital literacy, and so on)
- an 'evaluation paradigm' dimension, reflecting the broad philosophical and methodological basis from which the impacts assessment approach is drawn (for example experimental; participatory; cost analysis and so on)
- an 'operational context' dimension, which reflects how impacts assessment is carried out 'on the ground', in terms of data collection methods and analysis tools (like surveys, statistical analysis and so on) used and the logistics of applying them (including things like quality control; problem management, and so on). This operational context is illustrated by an 'implementation example', which documents a real-life illustration of how the scenario works in practice within a grass-roots intervention
- a 'process' dimension, which highlights the stage in the impacts assessment life cycle at which the scenario is focused (mapping; data collection and data reduction).

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[55] Habermas, J., (1973), Theory and Practice. trans. J. Viertel, Boston, MA.: Beacon Press/ Cambridge: Polity Press.
[56] Freire, P., (1972), Pedagogy of the Oppressed, London: Penguin.

These dimensions are summarised in Table 2.

Table 2: Methodology for documentation and analysis of the three scenarios of praxis

Scenario Name	Field Context	Evaluation Paradigm	Operational context/ Implementation example	Process
Communities of Practice	An 'ad hoc' set of methods that have evolved specifically within the 'telecentres' community.	Rooted in participatory/ constructivist evaluation but often uses a pluralist approach	UK Online Centres Spanish Telecentres	Stage 2: methods and strategies to collect the data from primary sources
Cost-based evaluation	'Generic' context not explicitly ICTs but established tradition in measuring 'social benefits' of investment	Mainly drawn from 'modelling' and econometric evaluation	International Computer Driving Licence (ICDL)	Stage 3: methods to simplify/reduce measurement to single numbers
Outcomes Identification as collective practice	Generic context not explicitly linked to ICTs - reflects a lot of work in international development	Influenced by 'experimental' evaluation, but often uses 'participatory' methods to define and map outcomes	VET4e-I. Realising Ambition	Stage 1: outcomes identification/ mapping/ definition

As Table 2 shows, documentation and analysis of the three scenarios of praxis involved case study analysis of examples of specific grass-roots interventions that illustrate how each scenario works in practice. These are summarised in Table 3.

The methodology for implementing the case study examples followed standard case study analysis procedures (Yin, 2002),[57] using data derived from content analysis of available documentation, supported by interviews with key informants and the results of an on-line survey. Analysis of these data entailed mapping and assessing each case example in relation to the dimensions shown in Table 1 above, i.e.:

- mapping the 'field context' of the case (the duration of the intervention; its geographical and sectoral areas of operation; target groups and their needs; key objectives; services provided; use of ICTs).
- mapping and analysing the evaluation approach used to assess the outcomes and impacts of the intervention (the 'evaluation paradigm'; reasons for selecting a particular approach; methods applied to collect and analyse data; expected outcomes and impacts).
- mapping and analysis of the implementation of the IA approach as applied to the case example (how data are collected; by whom; for what purposes; how often; quality control processes and mechanisms; problems encountered and addressed).
- assessment of the 'goodness of fit' between the IA approach and the objectives and service model of the case example, using a 'theory of change' and 'logic model analysis' method.
- assessment of transferability and replicability to the MIREIA programme (what can be learned from the case example in terms of strengths, weaknesses, generalizability, practical use by grass roots organisations).

The case study results provide inputs to the overall documentation and assessment of the three 'scenarios of praxis'. This follows a similar methodology to that used for the case studies themselves and is based on:

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[57] Robert K. Yin, (2002), Case Study Research. Design and Methods. Third Edition. Applied social research method series Volume 5. Sage Publications.

- a mapping of the scenario, focusing on its theoretical and conceptual foundations; the evaluation paradigms it draws on; the sectors in which it is applied, including applications in the field of interventions using ICTs and involving grass-roots organisations; the data collection and analysis tools typically applied in practice; their strengths and weaknesses; an assessment of their relevance and applicability to the MIREIA programme.
- an assessment of the use of the scenario in practice, drawing on the results of the analysis of indicative case studies.
- a comparative review of the three scenarios, with a particular focus on what generic components can be transferred to developing the MIREIA framework, and what kinds of operational and practical issues need to be addressed in the MIREIA programme.

Table 3: Case study examples of the three scenarios

Scenario Name	Case Study Name	Case Study Description
Communities of Practice	UK Online Centres	UK Online Centres is a multi-stakeholder partnership engaging public bodies, private companies, non profit and grassroots organizations in providing training, certification, digital literacy courses within around 3,800 UK online centres. The IA approach combines regular cross-sectional user surveys with a cohort survey; 'ad hoc' 'Research Projects' that focused on some specific evaluation aspects, and a 'Social Impact Tool' which measures the impact of 'Community Hubs' on community social capital, and social impact of return.
	Spanish Telecentres	The Spanish Telecentre network provides a local technological reference point, contributing to increasing users' confidence and security in the use of and participation in digital environments; promoting participation and training in the use of ICTs: improving employability, improving digital citizenship (e-administration, e-banking, e-commerce). The IA approach is based on an 'input-output mode' and combines surveys with statistics to provide a monetized assessment of value.
Cost-based evaluation	International Computer Driving Licence (ICDL)	ICDL is a "global computer literacy initiative developed to raise the level of knowledge about Information Technology (IT) and increase the level of competence in using personal computers and common computer applications for all the citizens of the world." The ICDL certification programme consists of modules which define the skills and competencies necessary to be a proficient user of a computer and common computer applications. The IA approach combines statistical analysis of utilisation and user profile data with ''quality' data generated through the quality assurance system, and provides estimates of social rate of return on investment.
Outcomes Identification as collective practice	VET4e-I.	VET4e-I involves a consortium of organisations located in Spain, Bulgaria, France and Italy involving universities, a private training and certification centre and different intermediaries such as telecentre networks, public libraries and numerous non profit organisations. The IA approach aims at evaluating digital skills, increased self-esteem, team work capability, reduced marginalisation, active citizenship, insertion into learning and labour markets, social capital development.
	Realising Ambition	Realising Ambition is a 'replication' programme funded by the UK 'Big Lottery' (BIG). It essentially aims to support around 25 projects providing services to reduce youth offending in scaling up their projects. The IA approach combines RCTs with participatory user involvement and the innovative use of Web 2.0 technologies to support data gathering and learning from evaluation.

An important dimension in assessing the transferability to MIREIA of the approaches and methods embedded in these scenarios – and in the illustrative case studies – is how they portray and measure the 'distance travelled' towards expected impacts. As noted above, and as Figure 1 shows, all interventions – and the approaches used to evaluate them – embody a 'theory of change'[58] which involves the specification of an explicit or implicit theory of how and why a programme or project might cause or have caused an effect and the use of this theory to guide future programme implementation and evaluation. The end point of a theory of change will specify the long-term impacts that are anticipated as a result of the implementation of the intervention – and the indicators that should be used to assess whether these anticipated impacts have been realised.

Figure 1: 'Distance travelled' stages in a theory of change
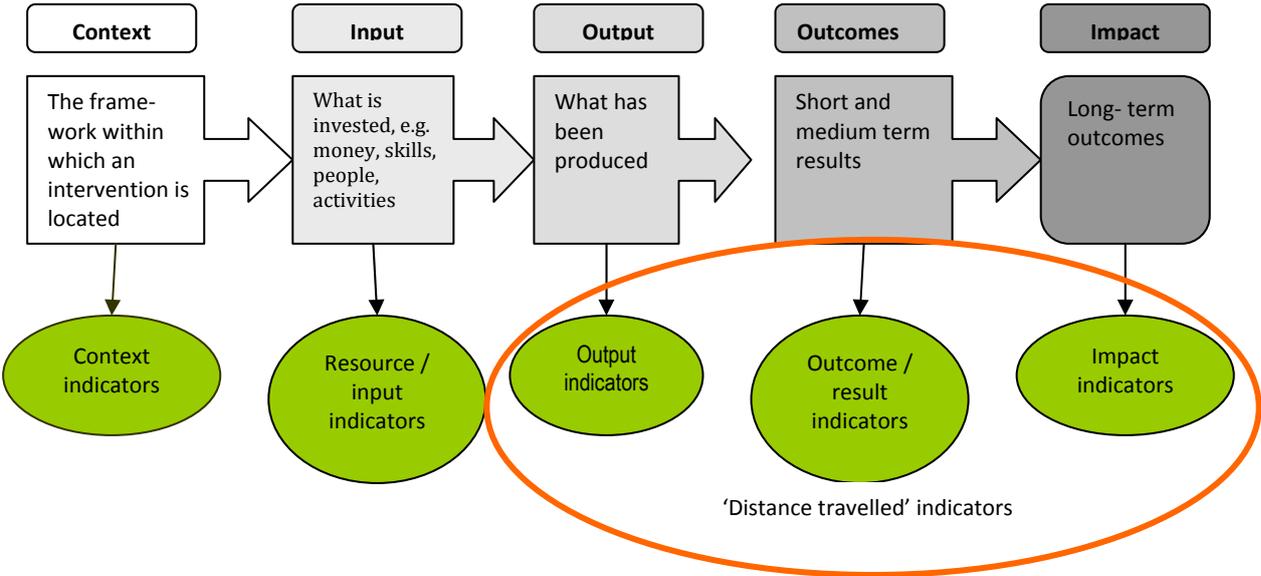
The theory of change 'journey' can be demarcated at a range of points along its trajectory - from 'context', through 'inputs' through to 'outputs', then 'outcomes' and finally 'impacts'. At the conceptual level, the 'distance travelled' refers both to the stage the intervention has reached along the 'theory of change' pathway as well as the level of assessment reached at this point. Impacts assessment also often refers to 'distance travelled' as the progress a beneficiary of an intervention has made in relation to the anticipated 'end result' or final change in beneficiary status associated with his or her participation in the intervention – for example progress made towards full employment.[59] In this context, distance travelled is often linked to the measurement of 'soft outcomes'. Impacts assessment in social inclusion interventions typically looks for 'hard' measurements – like jobs obtained, numbers of qualifications, and numbers progressing onto further education and training. However, data for these kinds of indicators are often difficult to collect, and they lack 'granularity'. 'Soft outcomes' measures – like interpersonal skills - are therefore used to assess progress that a beneficiary makes towards employability or harder outcomes, as a result of the initiative.

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[58]   Weiss, C., (1995), "Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families." In *New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts*, ed. James P. Connell et al. Washington, DC: Aspen Institute.

[59]   See, for example, Dewson S, Eccles J, Tackey N D, Jackson A., (2000), M*easuring Soft Outcomes and Distance Travelled: A Review of Current Practice*,. Research Report RR219, Department for Education and Employment and Dewson, S, J Eccles, N Tackey, A Jackson (2000) Guide to measuring soft outcomes and distance travelled, Institute for Employment Studies http://www.esf.gov.uk/_docs/distance%5B1%5D.pdf

As Figure 2 shows, the key indicators in measuring distance travelled are outputs, outcomes and impacts. In the documentation and analysis of the scenarios and the case studies we looked at the type and range of these key indicators, using the definitions developed by the European Commission,[60] and the Vienna study on the economic and social impact of eInclusion,[61] as shown in Box 2:

Box 2: definitions of outputs, outcomes and impacts indicators

Output indicators relate to activity. They are measured in physical or monetary units (e.g., length of railroad constructed, number of firms financially supported, etc.).

Result (outcome) indicators relate to the direct and immediate effect on direct beneficiaries brought about by a programme. They provide information on changes to, for example, the behaviour, capacity or performance of beneficiaries.

Impact indicators refer to the consequences and broader and longer-term social and economic changes of the programme beyond the immediate effects. Two concepts of impact can be defined:
- **Specific** impacts are those effects occurring after a certain lapse of time but which are, nonetheless, directly linked to the action taken and the direct beneficiaries.
- **Global** impacts are longer-term effects affecting a wider population

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3.3.3 Additional analysis and documentation

Following the initial documentation and analysis, using the methodology outlined above, an additional, final element of the study approach entailed two further activities:

- first, a review of the initial documentation and analysis of the methods, drawing on the results of the Validation Workshop (outlined in detail in Deliverable 2 of the MMTSO study);
- second, additional case study analysis of three examples of approaches used to assess grass roots interventions in eInclusion.

The additional case study analysis was carried out to expand on the key findings of the research; to follow up new insights that were developed in the Workshop, and to clarify some of the remaining questions the research highlighted.

A particular focus of these additional case studies was on three aspects of the impacts assessment 'process', which can be seen as a 'journey' that has three main stages:

- Stage 1: Developing an approach to impact assessment that reflects organisational objectives, needs and expected outcomes and impacts – the 'theory of change'.
- Stage 2: Collecting data on how to monitor and measure the 'journey – the implementation of the 'theory of change'.
- Stage 3: Analysing and making sense of the data that has been collected, and then applying what has been learned to making the organisation's objectives and the changes it wants to achieve more effective and more attainable in the future – the 'learning and transferability' stage.

The selection of these three cases marked a shift in the 'level of analysis' used in the initial documentation and analysis. In the initial stage, we focused on how grass roots organisations in the field were using impacts assessment methods and practices to evaluate the work they were doing on the ground. In the second, 're-appraisal' phase of the analysis, we shifted the focus to concentrate in more depth on how these methods and practices were conceptualised and managed by actors operating at the management level. Three case studies were selected for this additional analysis,

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[60] Source: European Commission, Directorate General Regional Policy (2006) Indicative Guidelines on Evaluation Methods: Monitoring and Evaluation Indicators. Working Document No 2.

[61] Codagnone C., (2009), "Vienna study on the economic and social impact of eInclusion", Source: http://ec.europa.eu/information_society/activities/einclusion/library/studies/eco_impact/index_en.htm

two of which were previously covered in the initial analysis and documentation (Task 5) and one additional case which was presented at the Validation Workshop:

- 'Realising Ambition' – the 'BIG' replication programme supporting projects working in youth crime prevention.
- UK Online Centres – the national network of community-based centres providing funding, consultancy and training to improve digital literacy.
- The Guild – a UK consultancy providing evaluation support to voluntary and community organisations and social enterprises.

The case study methodology combined in-depth interviews with key informants in these organisations with further content analysis of available documentation.

3.4   Review of Impacts Assessment Scenario 1: Communities of Practice

This Section – and the following sections – Section 3 .5 and 3.6 – provide documentation and analysis of the three 'Scenarios of Praxis' described in Section 3.3.2 above. Each scenario is presented as follows:

- First, a 'summary overview' of the scenario, outlining its origins, conceptual focus and practices, together with a summary of the impacts assessment methodology used.

- Second, either one or two case studies of the application of the scenario in real-world eInclusion initiatives delivered by grass roots organisations. These case studies present:

  o   a text summary of the case;

  o   an impact assessment analysis grid (profile of the initiative; the outputs, outcomes and impacts actually measured; how they are measured; the data collection methods and tools used).

- Third, an overall assessment of the scenario in terms of its application to the MIREIA objectives.

The distinguishing feature of this cluster of impacts assessment approaches is its 'ecological' evolution. Evaluation theory and practice have been shaped by grass roots organisations using ICTs to support excluded and 'at risk' individuals and communities, with a key focus on addressing the 'digital divide' and supporting increased digital and media literacy.

One the one hand, a significant body of research and evaluation work that has been developed on the impacts of interventions involving digital literacy programmes in relation to five key sectors and target groups: individuals; private sector organisations; government agencies; national economies and the broader 'societal' impacts.[62] There has also been a strong emphasis on calculating economic returns on investment in these kinds of programmes, albeit linked to 'bridging' factors like education; employment and health. In the education field, impacts assessment approaches have looked at the impacts of e-learning. For example, the Fischer Family Trust used surveys of GCSE students in the UK to calculate increases in level of GCSE associated with length of time spent learning on line.[63] Work by Walker and Zhu using statistical modelling into the labour market effects of qualifications, found a significant association between level of e-learning; level of qualifications and increases in wages.[64] Other evaluation effort has focused on the assessment of health gains associated with increased digital literacy. Evaluation of the use of the UK NHS on-line 'NHS Choices' service, for example, looked at factors such as reductions in appointment waiting times as a result of improved information use by patients, and linked these to improvements in quality of care. Another growth area in impacts assessment has been analysis of the effects of increased digital literacy on the provision and performance of government services. For example, the European Commission e-

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[62]   UK Online Centres, (2010), Economic benefits of digital inclusion: building the evidence.
[63]   Sam Learning, (2005), 'Impact of e-learning on GCSE results of 105,617 students, 2004', Fischer Family Trust.
[64]   Walker and Zhu, (2007), 'The Labour Market Effects of Qualifications', Warwick University.

Government Economics Project has been developing impacts assessment methods to calculate the relationship between public spending on ICT skills training and e-government and effects on GDP.

However, an emerging trend in recent years has been the increasing engagement of grass roots organisations themselves in impacts assessment. This in part is a reflection of the enormous growth in telecentre networks globally from their origins in Europe's telecottage and Electronic Village Halls and in Community Technology Centers (CTCs) in the United States in the 1980s. Since that time, a broadening of the range and type of applications, encompassing cyber-cafes, community multimedia centres (CMC) and other forms, coupled with a huge expansion of centres – and different kinds of models and practices – in the developing world, together with the emergence of global networks and communities of practice, like Telecentres Europe, has provided a rich source of data on what they are, what they do and what they achieve. A distinctive feature of this evolution has been the diversity of the models, methods and practices that have evolved since the 1980's. As the IPTS 'PESCE' study (Comparative Study of Public e-Service Centres in Europe) observed: "These centres are organised in different models. Some can be defined as NGOs, others as non- profit government organisations that manage large networks of ground level organisations, some are run within a public-private partnership, or have the form of a civil society community project without being a legal entity."[65] Perhaps more significantly, the different models reflect more complex ideological, conceptual and philosophical underpinnings that are poorly understood. Some models reflect 'classical' perspectives on human capital theory, based on goals that prioritise 'labour market' conceptions of social inclusion. Others reflect purely 'commercial' imperatives, though these vary in range from the typical 'cybercafé', launched by entrepreneurs for profit, to the social enterprise, where profit and social good objectives are combined. Others, particularly more recent models based on 'Community Informatics', reflect conceptualisations and goals that are more attuned to 'community empowerment' theories and practices, that have their roots, for example in Freirian notions of 'conscientisation'.

Reflecting this diversity, the evaluation and impacts assessment approaches that have evolved in this environment exhibit a high degree of 'pluralism'. On the one hand, the major role played by institutional donors in supporting the development of grass roots networks has ensured that 'generic' evaluation frameworks like logic models have become to some extent embedded in evaluation practice. But this is counter-pointed by a high level of contextualisation of methods and practices that has emerged from the activities and knowledge-sharing of grass roots 'communities of practice' on the ground.

A mapping and analysis of impacts assessment of ICT-based interventions for community development – ICT4DE – carried out by Heeks and Molla in 2009[66] identifies six broad categories of IA 'frameworks' that are used in the field. These are:

- **Generic**: general frameworks usable in assessment of any development project, and consisting of two main types: Cost-benefit analysis – focusing on making explicit the link between inputs and outcomes including assumptions, and adding rigour to impact evaluation. Project goals - focusing on assessing the ICT4D project against the particular goals that were set for that project, and is thus sensitive to the particular priorities and context of an individual project.
- **Discipline-Specific**: assessment drawing from a particular academic discipline, and consisting of six main types: i) Communications for development - using a positivist, survey-based approach that requires identifying users who have different levels of exposure to communicated information. ii) Capabilities (Sen) Framework - offers a way into human development paradigms (as opposed to those focusing on wealth-as-

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[65] Groeneveld, S., Haché, A., (2008), "Comparative Study of Public e-Service Centres in Europe" – A contribution to the "e-Inclusion: be part of it!" campaign of the European Commission, DG INFSO H3

[66] Heeks, R., Molla A., (2009), Impact Assessment of ICT-for-Development Projects: A Compendium of Approaches, Paper No. 36, Institute for Development Policy and Management, University of Manchester.

development), to help see how ICTs can contribute to freedom and empowerment iii) Livelihoods Framework - provides an all-embracing framework for assessing the impact of ICTs on individuals and communities: context, assets, institutions, strategies and outcomes iv) Information Economics –analysis of the business (commerce/trade) related impacts of ICT4D v) Information Needs/Mapping - focuses on ICTs' information delivery capacities and how these can address the specific information needs of individual communities vi) Cultural-Institutional Framework - focuses on the 'softer factors' which have a key influence on ICT4D users but which are often overlooked by other approaches.

- **Issue-Specific**: assessment focused on a particular development goal or issue, consisting of two main types: Enterprise - concentrates on the 'enterprise' as the unit of analysis for IA, for example how a telecentre network contributes to social capital. Gender, focusing on gender relations and empowerment.
- **Application-Specific**: assessment focused on one particular ICT4D technology.
- **Method-Specific**: assessment centred on a particular approach to data-gathering.
- **Sector-Specific**: assessment centred on an individual development sector.

Our own analysis of the 81 impacts assessment approaches identified through the MMTSO Data Audit showed that 48% of these were specifically applied in sectors that were using ICTs to support social inclusion objectives. Figure 2 shows their distribution according to type of approach.

Figure 2. IA approaches in ICT sectors
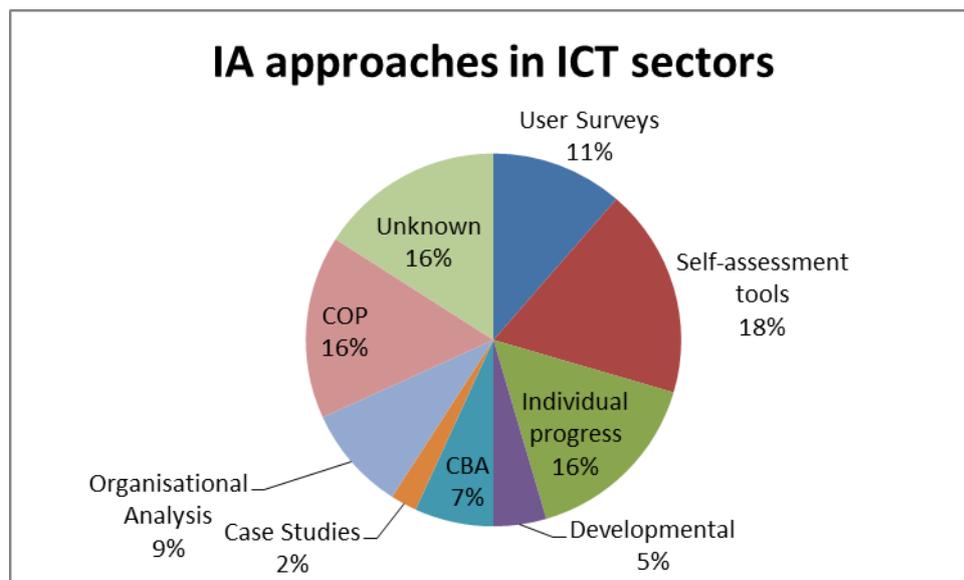
Figure 2 shows that, apart from cases where it was difficult to find an appropriate label for the IA approach, three main broad clusters of approaches could be identified:

- IA based on data collected from digital competence self-assessment tools. These typically combine individual competence testing with progress monitoring as individuals progress through on-line training. The performance data are then aggregated to provide overall impacts assessment of an intervention. An example is 'SKIL' (Stanford's Key to Information Literacy) – the modules of SKIL cover key concepts about research skills and resources, with interactive exercises to reinforce learning. The web-based system includes qualification certification.[67]

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[67] http://skil.stanford.edu/intro/index.html

- A variation on this are IA approaches that focus on measuring individual progression, and where users are involved as 'co-producers' of assessment data. An example is PbYp, a web-based service that develops skills and competencies certification for learners through gathering and recording of evidence from life in and out of school. Evidence is peer assessed by learners from other schools globally all over the world who are developing the same skills. All users become learners and assessors.
- IA approaches based on collecting and analysing impacts assessment data through engaging with 'communities of practice'.

Our analysis seems to suggest that in the ICT grass roots environment, the six framework categories identified by Heeks and Molla are often combined in the evaluation practices of grass roots organisations, particularly in the case of the third type of IA approach highlighted in our study. Below, we explore in more detail how IA is delivered through 'sensemaking' in communities of practice with reference to two illustrative case studies of grass roots networks: UK Online Centres and Spanish Telecentres.

IA Methodological summary

The methodological approach commonly used in this scenario reflects the following attributes:

Type of data	Typically entails primary data collection from key stakeholders, supported by secondary data e.g. telecentre service delivery records; costs; utilisation rates.
Data gathering methods	Pluralist, mixing qualitative and quantitative. Typically used are: User surveys; stakeholder interviews; Field visits and Observation; Focus groups; Content analysis of documentation; telecentre records, computer-generated; log files and other project documents, diaries of participants; individual case studies. Sometimes quasi-experimental methods used (e.g. longitudinal surveys using control-comparison groups). Use of 'input-output' model to calculate financial return on supporting digital competences through telecentres and other grass roots organisations.
Evaluation paradigm and disciplinarity	Influenced by teleonomicist / systems-based paradigms. Strong emphasis on participatory and constructivist evaluation but often uses 'scientific realist' methods involving statistical analysis and surveys. Often multi-disciplinary, combining sociological, economic and anthropological disciplines.
Robustness (on Maryland Scale)	Mostly at Level 1: Correlation between an intervention and a measure of desired impact at a single point in time – and Level 2: Temporal sequence between the intervention and the outcome clearly observed, or the presence of a comparison group without demonstrated comparability to the treatment group.
Coverage of evaluation life cycle	Most IA is 'ex-post' with little evidence of 'ex-ante' IA design, although formative (process) evaluation often carried out. Ex-post evaluation normally consists of cross-sectional – 'snapshots' of user impacts – and is multi-organisational (comparing a range of grass roots organisation).
Level	Individual; organisational; community network. Sometimes macro-level analysis (e.g. analysis of effects of digital literacy programmes on national GDP).
Evaluation purposes	Accountability; value for money; operational efficiency; beneficiary outcomes and impacts.
Evaluation audience	Mainly within the 'communities of practice' developed by grass-roots organisations but often IA commissioned to demonstrate value for donors and funders.
Resource requirements	Variable. Depends on scale of IA and size of programme evaluated
Generalisability	Tends to be programme specific, but good potential for transferability through grass roots networks.
Comparability	Some learning transferable between and across projects.

3.4.1 The case studies

3.4.1.1 UK online centres

Summary: UK Online Centres

UK Online Centres was initially a government-sponsored intervention. It now involves a multi-stakeholder partnership engaging public bodies (Department for Business, Innovation and Skills, Department for Communities and Local Government, Department for Education, Culture Media and Sports, Directgov, Jobcentre Plus, the Post Office and NHS Choices), private companies (BBC, BT, Three, Wetherspoons, Mecca and Microsoft), non profit organisations (Age UK, AbilityNet and Digital Unite) and grassroots organizations providing training, certification, digital literacy courses within around 3,800 UK online centres. These target young people, immigrants and ethnic minorities, disabled persons, unemployed, elderly, low skilled, women, low income people, people in precarious work and other intermediaries and non profit organisations working with them. The ICTs used in UK Online Centres are mainly web-based, social media and mobile. The IA approach aims at evaluating short term outcomes such as digital skills, reduced marginalization, insertion into learning and labour and social capital fostering. IA of those short term outcomes show that there is an increased digital capacity in communities through the "Community Hubs" and that there is an increased employability of the people who have completed training programs. The evaluation and monitoring systems focus on regular on-going user surveys oriented at a sample of 250 programme participants, supported by a 'progression' survey that follows a 'cohort' sample of 250 programme participants and tracks their education and employment status after completing programmes. This is done in partnership with 'Jobs Centre Plus' (a government employment benefits agency). It should be noted that individual participants can also on-line rate digital literacy programmes by using a dedicated 'app'. In addition, IA is supported through 'ad hoc' 'Research Projects' that focused on some specific aspects more in-depth such as the 2008 'Digital Inclusion Social Impact' study. Furthermore, in May 2012 UK Online Centres will release a new 'Social Impact Tool' which has been piloted in 20 (out of 3,800) centres. It is based on 'Community Hubs' (local 'digital centres' which will undertake local community development using digital technology). This tool will measure the impact of the Hubs on community social capital, and social impact of return (including measuring savings of increased employability set against costs of referral onto training programmes). The tool will be on-line and will track a longitudinal cohort sample of programme participants, using individual baselines to measure individual impacts, and then aggregate the data to measure community impact. Regarding data scalability, the IA approach consists of comparing the data collected at the 'centre' level with impacts assessment data (including digital literacy) at the 'ward' (local) level and then at national level using ONS (office of national Statistics.

Impact Assessment Analysis Grid: UK Online Centres

1: Profile of the Initiative

Implementation stage	On-going programme. Started 1999
Geographical areas	Nationwide, England
Social actors involved	3,800 local Online Centres NGOs: Age UK, AbilityNet and Digital Unite
Other partners involved	National Government: Department for Business, Innovation and Skills, Department for Communities and Local Government, Dept. for Education, Culture Media and Sports. Commercial: BBC (National TV), BT, Three (telecoms), Wetherspoons (Leisure), Mecca (Leisure) and Microsoft (Software) Other agencies: Directgov, Jobcentre Plus, the Post Office and NHS Choices
Target Groups (beneficiaries)	Centres are in 84% of local areas classified as 'deprived.' Young people; Immigrants/Ethnic minorities; Disabled; Unemployed; Older people; Low skilled; Women; People in precarious work; Offenders/ex-offenders; People on low income; People living in social housing. Participant profile: • 30% have no formal qualifications • Over 70% socially excluded • Over 50% receive some state benefit • 25% earn less than £10k a year • 23% live in social housing • 25% are responsible for children • 33% have a disability or mental health issues • 29% are unemployed and 33% are retired. • 25% are from non-British ethnic backgrounds

	Intermediaries: Trainers
Participation/ Utilisation	985,000 programme participants April 2010-April 2012
Services provided	Individual funding/grants for training. Funding/grants to centres. Digital skills programme ('Online Basic; GOLDrush, Face your online fears and Splash and grab' training courses) Counselling.
Use of ICTs	Computers at core of digital skills training programmes. Provides course 'Using Facebook' in partnership with Facebook. Portal - www.go-on.co.uk – provides on-line repository of resources. Uses Social networking (apps) to collect ongoing user satisfaction data. Use Twitter and Facebook to promote good practice sharing between partners.

Section 2: Outputs, Outcomes and Impacts

Outputs

Output	How output measured	Results
Increase access to ICTs and digital literacy for excluded people	Number of participants with no formal qualifications online Number of participants worried about their skills level online Number of participants worried about their work status online Number of participants worried about their financial situation online.	Reduction in people concerned with lack of skills from 33% to 14% Reduction in people concerned with work status from 13% to 11% Increase in people concerned with financial situation from 10% to 22%.

Outcomes

Outcome	How outcome measured	Results
Social proficiency	Increase in self confidence Increase in links with family and friends	Increase in participant confidence with computers (26% to 60% over 1 year) 50% reported increased self-confidence 47% reported increased contact with family and friends
Cognitive proficiency	Improved ICT skills Improved literacy Improved numeracy	Increase in participant use of computers (from 50% use every day to 85% over 1 year) Reduction in people reporting problems with literacy from 30% to 12% Reduction in people reporting problems with numeracy from 30% to 13%

Longer term Impacts

Impact	How impact measured	Results
Increased digital capacity in communities through 'Community Hubs'	impact of the Hubs on community social capital, and social impact of return (including measuring savings of increased employability set against costs of referral onto training programmes)	Not yet implemented.
Increased employability of people who have completed training programmes	Number of people participating in centre programmes finding a job after completing programme	One third of the new digitally engaged people served by UK online centres are employed or go on to find a job. 60% of participants take up further education, Information, Advice and Guidance opportunities, volunteering

		placements or employment
Economic benefit to UK economy	Benefit to business from training provided to their employees at UK Online Centres Benefit to UK economy	40 euro per digitally engaged citizen 220 million euro per year
Cost	Cost of training per participant	180 euro per participant

Other aspects of the initiative evaluated	IPSOS-Mori evaluation included four focus groups (5-9Participants), and 8 in-depth interviews.

3: How outcomes and impacts are assessed

Evaluation/impacts assessment approach used	Multi-methodological approach based on 'triangulation' of different kinds of source data. Uses 'inputs-outputs' model to calculate monetized social return on investment. This specifies: i) the mechanism (process 'enabler' or aspect of digital inclusion which drives desired social and economic outcomes) ii) case study example of the mechanism iii) outcome of implementation of the mechanism iv) quantified benefit of the outcome v) multiplier effect of the outcome. The data for the model are derived from: i) desk research to identify benefits ii) case studies providing 'bottom up' data. On-going IA focused on i) cross-sectional user surveys ii) cohort user survey.
Why approach chosen	UK Online Centres commissioned external consultancy 'Fresh Minds' to develop evaluation/IA methodology. UK Online Centres also commissioned market research company – IPSOS Mori – to synthesise evaluation results using data from 20 UK Online 'Social Demonstrator' Projects (involving over 100 centres) to produce an overview of impacts.
Evolution of evaluation/IA approach	A new addition to the IA approach is the 'Social Impact Tool' which has been piloted in 20 (out of 3,800) centres. It is based on 'Community Hubs' (local 'digital centres' which will undertake local community development using digital technology). This tool will measure the impact of the Hubs on community social capital, and social impact of return (including measuring savings of increased employability set against costs of referral onto training programmes). The tool will be on-line and will track a longitudinal cohort sample of programme participants, using individual baselines to measure individual impacts, and then aggregate the data to measure community impact.
Definitions and Sources of information	UK Online Centres Annual Review (2011) UK Online Centres Digital Inclusion Social Impact Study (Ipsos Mori) (2008) UK Online Centre: Economic Benefits of Digital Inclusion Study (Fresh Minds) (2008) MMTSO on-line survey

IA Data collection

- Method used,
- The source of data provision,
- The quantity of data collected,
- Who is involved in collecting the data,
- The type of data collected and what it measures,
- What the data are used for,
- How often the data are collected.

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
Cross-sectional survey	Programme participants	Stratified Sample of 250	In-house staff	Socio-demographic Educational level Employment status Digital skills level Social skills	Organisational performance Outcomes and impacts for beneficiaries	Quarterly

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
Progression survey	Cohort of programme participants	Stratified Sample of 250	In-house staff in partnership with 'Jobs Centre Plus' (government/employment benefits agency	Socio-demographic Digital skills level	Tracking education and employment status of participants after completing programme	Quarterly
Social Impact Tool	'Community Hubs' (local 'digital centres')	20	Individual programme beneficiaries providing on-line data	Impact of Hubs on community social capital, and social impact of return (measuring savings of increased employability set against costs of referral onto training programmes) Social skills Employment progression	Impacts assessment	Piloted.
Statistical analysis	UK online centre offices	6,000 offices	Management of UK online centres	Participation rates and profiles of participants	Programme monitoring and cost-benefit analysis	Ongoing
Participatory	Individual participants of programme	Variable	Individual participants of programme	On-line rating of programme using 'apps'	User satisfaction	Ongoing
External social audit		Stratified sample 1,727 programme participants	External consultancy (IPSOS-Mori)			One off project over 1 year

Quality control	No data available
Evaluation/impacts assessment costs	No data available
Problems experienced in carrying out evaluation/impacts assessment	Lack of granularity - deprived communities will always show up in IA analysis as deprived, even though there may be some impact that reduces the level of deprivation as a result of an intervention. Secondly, it is very difficult to attribute 'causality' to interventions that the centres carry out. Thirdly, there is a time problem - people who get educated tend to leave the community, so the longer term impact they have, e.g. contribution to social capital, is not measured.
How problems addressed	Use of qualitative case study data to supplement statistical analysis. Introduction of new 'Social Impact Tool' to track impacts on cohort sample of beneficiaries.
Scaling up of data to macro level	The data collected at the 'centre' level are compared with impacts assessment data (including digital literacy) at the 'ward' (local) level and then at national level using ONS (Office of National Statistics) data. However, it is difficult to show impacts, because the measurements lack 'granularity'. Reductions in level of deprivation in communities may be significant at the local level but will not show up as significant when set against 'core' indicators used at national level.

3.4.1.2 Spanish telecentres

Summary: Socio-economic impact of Spanish telecentres networks
This IA approach is based on a mix of methodologies and was carried out between November 2010 and March 2011 by the Spanish foundation CTIC[68] at the demand of the non profit organization Comunidad de Telecentros[69] which federates together the different telecentres networks in Spain which generally rely on regional frameworks. The purpose of the study was to carry out a comprehensive assessment of the socio-economic impact of the 11 regional telecentre networks looking at the projects' actions and their impact in the region. Specific aims were to get a contextual, and aggregate, fixed picture of the regional telecentre networks; identify and evaluate the most important actions; discover what are the main features of each telecentre network and how they have evolved, as well as their main investment sources; and finally, relate the indicators of use and investment to the socioeconomic and social impact in the national territory, with details for each of the participating Autonomous Communities. The methodology has extensively relied on the development of surveys and the analysis of statistics (socio-demographic information, educational level, number of users enrolled in eSkills courses, economic and social outcomes) and the annual activity memory produced by each telecentre network. Specifically, it has used the input-output model which is a "quantitative economic technique that represents the interdependencies between different branches of national economy or between branches of different, even competing economies. It shows how the output of one industry is an input to each other industry."[70] The key findings of the IA approach showed that "the telecentres bring the population closer to infrastructures that enable the use of computers and free Internet access. The telecentres are a local technological reference point; contribute to increasing users' confidence and security in relation to the use of and participation in digital environments; promote participation and training in the use of ICTs: improved employability, digital relations (e-administration, e-banking, e-commerce…)".[71] The IA approach enables data scalability if there is a cautious selection of micro-data considered as representative of the region/country and those are then extrapolated using so called "lifting coefficients".

Impacts Assessment Analysis Grid: Network of Spanish Telecentres

1: Profile of the Initiative

How long has it been operating?	This case study focuses on the evaluation of the impact of the telecentres network, conducted by the Spanish foundation CTIC, was undertaken from 1/1/2010 and completed on 27/2/2011.
Geographical areas	Regional and national. 11 networks in Spain were studied; Andalusia, Asturias, Cantabria, Catalonia, Extremadura, Canary Islands (Fuerteventura), The Rioja, Madrid, Murcia, Navarra and Basque Country
Social actors involved	Telecentres in 11 regions of Spain
Other partners involved	Local governments and NGOs
Target Groups (beneficiaries)	Typically the telecentres provide services to entrepreneurs, small and medium sized businesses, collectives with difficulties in social and labour insertion, elderly people, disabled, unemployed, immigrants and ethnic minorities, young people and women with cultural disadvantages
Participation/ Utilisation	2529 centres studied distributed across 11 regions. Number of users of network (2009) 533,452
Services provided	Typically telecentre networks provide services under the following headings: e-Admin, e-Learning, e-Health, e-Banking, Trade, employment, Internet and technology services, information for citizens, information searching, entrepreneur and small and medium-sized businesses, dissemination of leisure and tourism activities. Different regions focus their services in different areas and on different collectives: Navarra provides considerable support to businesses, whilst the networks in Andalucia and Extremadura are working with social innovation working with entrepreneurs
Use of ICTs	Each telecentre will provide facilities for Internet access using standard equipment. Specific details of the individual configurations in the different networks and regions. 100% have public-access broadband.

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[68]   Available at: http://fundacionctic.org/
[69]   Available at: http://www.comunidaddetelecentros.net/
[70]   Available at: http://en.wikipedia.org/wiki/Input-output_model
[71]   Synthesis of results can be viewed at: www.youtube.com/watch?v=5HwZYVv3STM

Section 2: Outputs, Outcomes and Impacts

Outputs

Output	How output measured	Results
Increase in access of citizens to ICT training opportunities	Number of participants on training courses Number of courses and registrations	The annual increase in number of users went from 5278 in 2001 to 56517 the following year before dropping back down to 26269 in 2007 and then rising to 36667 in 2009. Online training in 2009 provided 62 interactive online courses with 82981 registrations. Total registrations increased from 353,000 in 2008 to 533,000 in 2009

Outcomes Grid

Outcome	How outcome measured	Results
Increase employment in regions	Number of new jobs created	2,800 jobs created

Impacts Grid

Impact	How impact measured	Results
Impact on ICT infrastructure and access	Statistical modelling	Increase of stock of ICT capital generated by investment in telecentres between 2008 and 2010 represents and increase in total GDP in Spain of €139.41m; 0.014% of GDP in Spain in 2009
Impact on national economy	Statistical modelling of cost benefit data	The impact of the investment of 273m€ between 2008 and 2010 in the telecentres networks has led to an increase in GDP each year of 220 million €, This is equivalent to 0.014% increase per year on average in the 11 networks.

Other aspects of the initiative evaluated	Not covered in evaluation

3: How outcomes and impacts are assessed

Evaluation/impacts assessment approach used	The overall IA methodology uses an input-output model to calculate cost-benefit analysis and social return on investment. This models the 'telecentres economy' in terms of a flow process. Input-output tables provide a snapshot of the 11 regional networks at two cross-sectional points in time, using a quasi-experimental approach with a pre-test/post-test design. They model the inter-relationships between economic entities in a region to provide an estimation of the increase in production associated with an investment – in this case ICT infrastructure provided through the telecentre networks. This is done by aggregating the estimated impacts for each network. The input-output tables were structured using inputs from OECD, EU and scientific journal studies. The statistical data were collected for a number of indicators on: costs; staffing levels; equipment; services provided; participation and utilisation rates; The statistical modelling was supplemented by qualitative impacts data collected for a number of indicators on self-reported outcomes (digital competence; social inclusion measures). There is a strong emphasis in the IA approach on assessing the usability of the ICT infrastructure (the degree of penetration of ICT in a region or collective). This information is collected by surveys, focus groups, interviews with associations or representatives of collectives. The advantage of this approach is to find out what is done with the technology and the knowledge, what adds value, how much and for how long.

Why approach chosen	The IA was commissioned by the Association of Networks of Telecentres in Spain and conducted by CTIC The Spanish Telecentres Network and CTIC were keen to use methodologies which rigorously measure impacts by examining what happened before and after a specific intervention.
Evolution of evaluation/IA approach	None reported
Definitions and sources of information	Impacto socio-económico de las redes de telecentros de la asociación comunidad de redes de telecentros (CTIC, 2011) MMTSO on-line survey.

IA Data collection grid

- Method used,
- The source of data provision,
- The quantity of data collected,
- Who is involved in collecting the data,
- The type of data collected and what it measures,
- What the data are used for,
- How often the data are collected.

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
CBA/SROI	Econometric models. Data from telecentres	Data from 11 telecentre regions plus additional 5 for qualitative data	External experts Telecentre managers	Statistical data on costs; staffing levels; equipment; services provided; participation and utilisation rates	Impacts analysis	1 year cross-sectional study
User surveys	Telecentres	Data from 11 telecentre regions plus additional 5 for qualitative data	Telecentre managers and programme participants	Digital competences and social inclusion measures	Impacts analysis	1 year cross-sectional study

Quality control	No data available
Evaluation/impacts assessment costs	No data available
Problems experienced in carrying out evaluation/impacts assessment	The main issue was in identifying the coherence and comparison between data from different regions relative to the investment in each network of telecentres analysed.
How problems addressed	Weighting co-efficients to smooth aggregate data analysis.
Scaling up of data to macro level	Example of how to extrapolate micro-level data from community-based interventions to national indicators

3.4.2 Assessment of Scenario 1

This section presents the overall assessment of the scenario based on five criteria:

- the strengths of the approach.
- weaknesses, including gaps in the theoretical and methodological basis of the approach, and problems associated with its implementation.
- the relevance of the approach to the MIREIA objectives.
- elements of the approach, and examples of good practice that are transferable to the MIREIA evaluation framework.
- multi-dimensionality – the extent to which the scenario addresses the multi-dimensional nature of eInclusion and hence the multi-dimensional nature of the MIREIA framework. This covers two main aspects: how far the approach can capture 'distance travelled' to expected impacts; the range of inclusion dimensions assessed.
- the potential usability of the approach, in the context of the characteristics and needs of grass roots organisations working in the field of ICT-mediated support for social inclusion.

Strengths of the IA approach	The approach is highly embedded in the 'lifeworld' of the grass roots organisations that provide ICT-based support to end users.
	It incorporates mechanisms to reflect the needs of stakeholders and to engage them in providing data inputs to impacts assessment.
	High degree of pluralism supports flexibility and adaptation to context of different grass roots organisations
	Extensive knowledge base and experience in globalised networks, particularly telecentres, has potential to support sensemaking, knowledge exchange, scaleability and replication.
Weaknesses and problems	Diversity of the programmes, actors and life-worlds constrains standardisation of approach, methods and results integration.
	As a result, common and core indicators difficult to establish.
	Comparison across programmes is therefore difficult.
	Micro-level data collection and results are difficult to bridge to macro-level indicators on social inclusion impacts.
	Establishing attribution and causality is problematic because of high level of intervening variables that need to be handled in IA assessment.
	A 'Quality Control' culture is not well-established and there is little evidence on how QA is handled.
Relevance of the approach to the MIREIA objectives	Theory and practice have evolved from grass roots organisations themselves, and ICT is centralised in methodology, hence approach is highly pertinent to MIREIA.
	However, despite a potentially large knowledge and evidence base, knowledge dissemination appears less developed than might be expected. Relatively low level of coverage and citations of methods and practice in journals.
Transferability of 'good practices' to the MIREIA evaluation framework	There are some 'generic' aspects of the approach that could be potentially useful for the MIREIA framework. These are: • The 'pluralist' focus, which could provide inputs to the 'building blocks' of the framework and enable balancing standardised IA methods to support robust evidence and generalizability with tools to support adaptation and contextualisation. • The use of participatory methods and tools to engage communities of practice in designing IA and in participating in data collection and analysis Specific good practices derived from the case study analysis are: • The UK Online Centres 'Social Impact Tool'. This could provide valuable learning in using Web 2.0 to engage users in IA • The UK Online Centres methodology for calculating economic benefits of digital literacy programmes shows high level of generalizability • The UK Online Centres partnership structure and practices – for example with 'Job centre Plus' show how grass roots organisations can work with

	national and local government agencies to collect and analyse robust data on tracking beneficiaries • Both Spanish Telecentres and UK Online Centres show how the 'input-output' model can be used to apply a standardised way to calculate financial return on supporting digital competences through telecentres and other grass roots organisations
Multi-dimensionality	Main focus is on measuring digital literacy, and so measurement of broader social inclusion impacts is more indirect. Some focus on 'progression' of individuals, but distance travelled measurement relatively under-developed. Strong emphasis on extrapolating individual outcomes to regional and national impacts, through econometric modelling.
Usability for grass roots organisations	Concepts behind IA approach show relatively high goodness of fit with needs and practices of grass roots organisations. Nonetheless it is not an accessible, usable and easily replicable IA approach for grass-roots organizations. It requires an extensive amount of financial and technical resources to be implemented successfully. Case study analysis highlights issues around cultural variability in use of IA instruments – for example issues around interpretation of digital competence metrics and language of questionnaires.

3.5   Review of Scenario 2: Cost-based Evaluation

The distinguishing feature of this cluster of approaches is the emphasis on reducing impacts assessment to standardised metrics. In the field of ICT-supported interventions involving grass-roots organisations, the dominant impact assessment approach has been cost-benefit analysis. CBA can be used to conduct ex-post financial evaluation of implemented projects as well as ex-ante evaluation of alternative investments. Its main objective is to assess the financial sustainability and cost-effectiveness of interventions. It uses established financial analysis like net present value, discounted cash flow or breakeven point to demonstrate the worth of projects once they are implemented.

In recent years, CBA has been supplemented by social return on investment (SROI). SROI can be seen as a generic evaluation framework that uses an input-output model to calculate additional value on investment beyond that normally calculated in purely financial assessment on return. SROI was primarily developed through the San Francisco-based philanthropic fund REDF (the Roberts Enterprise Development Fund). While SROI draws on the principles and methodology of cost-benefit analysis, it is also intended as a practical tool to help investment decision-makers decide on interventions that optimise their investment. Since 2000, when REDF began to disseminate work on SROI, the approach has been expanded, consolidated and standardised through the activities of a number of key actors in the field, for example the Hewlett Foundation and the New Economics Foundation in the UK. This process has been reinforced by the adoption of the approach by a number of national governments and their agencies. The UK government's Office of the Third Sector and the Scottish Government commissioned a project in 2007 to develop guidelines that allow social businesses seeking government grants to account for their impact using 'a consistent, verifiable method'. These developments have led to the further evolution of SROI, formalised in the production of a 'standard' approach produced by a consortium led by the SROI Network - a global organisation set up in 2006 to standardise SROI approaches and methods and which includes over 570 practitioners in its membership.

The standardised methodology for SROI, developed by the SROI Network and commonly used in impacts assessment, particularly in interventions aimed at 'community empowerment', is based on seven principles:[72]

- Involving stakeholders – using tools like stakeholder mapping to understand the way in which the organisation creates change through a dialogue with stakeholders.
- Understanding what changes – identifying and articulating all the values, objectives and stakeholders of the organisation before agreeing which aspects of the organisation are to be included in the scope; and determining what must be included in the account in order that stakeholders can make reasonable decisions .
- Valuing the things that matter - using financial proxies for indicators in order to include the values of those excluded from markets in same terms as used in markets.
- Only include what is material - articulating clearly how activities create change and evaluate this through the evidence gathered.
- Do not over-claim - make comparisons of performance and impact using appropriate benchmarks, targets and external standards.
- Be transparent - demonstrating the basis on which the findings may be considered accurate and honest; and showing that they will be reported to and discussed with stakeholders.
- Verify the result - ensure appropriate independent verification of the account.

A number of actors involved in international development have provided inputs to the SROI knowledge base, including USAID, who developed a Poverty Assessment Tool combining survey instruments and a data entry template to provide inputs to calculate reduction in poverty associated

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[72]   Nicholls et al., (2009), A Guide to Social Return on Investment.

with intervention investment and the Gates Foundation, who produced a review of practices in the field, comparing the purpose, methodology, benefits, utilization and limitations of the different applications of SROI approaches.

There are a number of variations and adaptations of the 'standardised' SROI approach that can be identified in the literature. The Acumen Fund approach addresses the problem of trying to find an absolute standard for social return given the diversity of portfolios and programmes that could be suitable for funding. The Acumen approach aims to quantify an investment's social impact and compare it to a 'known universe' of existing 'charitable options' in a particular 'issue space', for example poverty, crime, environment, and so on. The methodology aims to help funders decide where their investment will be most effective by comparing for each unit of financial investment how much social output it will generate over the life of the investment relative to the 'best available charitable option' (the BACO ratio). The 'High Impact Philanthropy Cost per Impact' approach reflects a variation on the Acumen model.[73] Developed by the Center for High Impact Philanthropy of the University of Pennsylvania it estimates the social and economic impact of donations. Tools of measurement are based on the production of cost-impact profiles and cost-effectiveness ratios[74] that can address economic, health, social, education and community development outcomes. The data collection is generally realized face to face from the intermediaries (NGO) implementing and delivering the interventions.

The key impacts assessment objective of SROI is to identify direct, demonstrable cost savings and revenue contributions associated with an individual's engagement in a social purpose enterprise. The measurements include tracking social outcomes of ordinarily difficult to monetize measures of social value, such as increases in self-esteem and social support systems, or improvements in housing stability. The SROI enables estimates of social and economic impact to be determined, and also to monitor soft skills such as self-esteem and strength of social support systems. Some of the tools and methods used are surveys, focus groups, interviews, statistics, indicators and metrics such as True Cost Accounting Analysis and Cash Flow Projections. Participant observation and participative evaluation can also be applied.

There are several examples in the literature of social impacts measurement (SIM) approaches that have been developed within the 'grass roots' world, to support voluntary sector and social enterprises in assessing impacts. Research carried out by the UK Charities Evaluation Service (CES) and by partnerships involving third sector organisations and universities[75] suggests that four main types of SIM approaches are used by grass roots organisations: SROI, Social Accounting and Audit, Soft Outcomes Universal Learning (SOUL) and Practical Quality Assurance System for Small Organisations (PQASSO). Social Accounting and Audit is a process of collecting performance information for social, environmental and economic objectives. Its distinguishing feature is the focus on audit by an independent panel with at least one trained audit professional. Like SROI, there is an emphasis on involving all stakeholders in the evaluation; on linking the assessment to the organisation's mission, aims and goals and on collecting robust data through independent auditing. SOUL aims to measure 'soft outcome' progress in social inclusion projects. It specifically measures adults' progress in attitude, personal/interpersonal and practical skills and children and young peoples' progress against UK policy criteria ('Every Child Matters') – for example on health measures; safety; achieving; making a positive contribution; economic wellbeing. It uses a multi-methodological set of tools, including questionnaires, worksheets and observation sheets. PQASSO is a quality management system developed for the charity sector. It aims to help organisations to run more

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[73] Source: http://www.impact.upenn.edu/about/ourproducts/

[74] More information available at: http://www.gatesfoundation.org/learning/documents/wwl-report-measuring-estimating-social-value-creation.pdf and appendix M http://www.gatesfoundation.org/learning/Documents/WWL-profiles-eight-integrated-cost-approaches.pdf

[75] See Centre for Enterprise and Economic Development Research/Third Sector Research Centre at Middlesex University with Malin Arvidson, Third Sector Research Centre at Southampton University (2011) Joining the Dots: Social Impact Measurement (SIM) experiences and future directions for the Third Sector organisations in the East of England.

effectively and efficiently, and as a result only partially covers the spread of assessment dimensions typically found in other SIM approaches. It is typically seen as a framework within which approaches to measuring impact can be integrated into management systems.

Although SROI and other social impacts measurement approaches were not specifically developed for ICT-supported interventions, there are some examples in the literature of IA approaches involving 'grass roots' ICT interventions. An example is the International Computer Driving Licence, presented as a case study below.

IA Methodological summary

The methodological approach commonly used in this scenario reflects the following attributes:

Type of data	Simple CBA can be done using secondary data, including financial proxies as indicators. SROI requires inputs of stakeholders, using tools like stakeholder mapping, and data collection that extends impacts assessment measures from financial to other social dimensions of return (e.g. employment, education, health).
Data gathering methods	Multi-methodological. Typically combines market data, historical (time series) financial data, business transaction documents, outputs from accounting systems, interviews and focus groups, user surveys.
Evaluation paradigm and disciplinarity	Grounded in teleonomicist - systems-based paradigms. Typically combines modelling (e.g. econometric models; simulations; scenarios analysis) with scientific-realist methods (e.g. statistical analysis and surveys) but has a strong developmental focus – especially in SIM approaches used in ''third sector''. Typically builds on theory and practice from economics and social science.
Robustness (on Maryland Scale)	Level 2: Temporal sequence between the intervention and the outcome clearly observed, or the presence of a comparison group without demonstrated comparability to the treatment group, and Level 3: A comparison between two or more comparable units of analysis, one with and one without the program.
Coverage of evaluation life cycle	SROI used either in 'ex-ante' mode (e.g. inputs to selection of programme investment portfolio) or 'ex-post' mode (calculating social rate of return of programme). Can provide time-based longitudinal tracking of intervention delivery as well as cross-sectional snapshots
Level	Can be applied at aggregate (programme) level, but mostly applied at project level – particularly with grass roots organisations. Scaling of data collected at individual level (e.g. behavioural additionality analysis to assess changes in status of individual beneficiaries) often aggregated to project and then programme.
Evaluation purposes	Sometimes used in programme design ('ex ante) but most often used to demonstrate accountability, value for money and impacts.
Evaluation audience	Tends to be pitched at policy-makers (used extensively by government agencies); funders and donors but also widely used by programme and project managers.
Resource requirements	Requires competency and experience in financial modelling and analysis.
Generalisability	Standardised SROI approach (for example that produced by SROI network) supports high degree of cross-programme application.
Comparability	Standardised SROI approach supports comparison between projects. Input-output modelling supports comparison between projects.

3.5.1 Case Study: International Computer Driving Licence

Summary: International Computer Driving License

The International Computer Driving Licence (ICDL) is a "global computer literacy initiative developed to raise the level of knowledge about Information Technology (IT) and increase the level of competence in using personal computers and common computer applications for all the citizens of the world. Owned and coordinated by The European Computer Driving Licence Foundation Limited (ECDL-F) , a not-for-profit organization based in Dublin, Ireland, the ICDL is an internationally recognized, vendor-neutral certificate which demonstrates a person's competence in computing knowledge and skills in accordance with international standards".[76] The programme was launched in 1997 and is available in 148 countries around the world across 5 continents. Its development is based in a multi-stakeholder approach including partnership with public bodies, private companies, universities non-profit organisations, education and training centres and primary and secondary schools accounting for 24.000 approved test centres. ECDL was included in the study because it uses ICTs to deliver digital literacy outcomes for a range of socially excluded, through grass-roots organisations. It has also developed a distinctive IA methodology to assess its impacts. Target users of those organisations include socio-economically disadvantaged backgrounds and geographically marginalised areas (young people, IEM, women, low skilled, elderly, unemployed). The "ICDL certification programme consist of modules which define the skills and competencies necessary to be a proficient user of a computer and common computer applications. Each module provides a programme of up-to-date skills and knowledge areas which are validated by a test. The certification is awarded to candidates who complete a minimum of 7 modules from those available (basic concepts of information technology (IT), using the computer and managing files, word processing, spreadsheets, databases, Presentations, Information and Communication, Security)".[77] eLearning platforms have been developed in order to meet the training needs and requirements of various groups and they can be provided through web-based e-learning systems and mobiles. Expected short-term outcomes are digital skills and self-esteem increase. The certificate statement of competence is understood as being concrete evidence of an individual's skills that enhances outcomes such as confidence and employability. Long term impact focuses on reducing the digital divide, supporting ICT-based interactions within communities, creating a better match between skills for jobs. IA methodologies used combine statistical analysis of utilisation and user profile data with ''quality' data generated through the quality assurance system. Data is collected on-line and in person via audit measures. The nature of data collected and monitored depends on the context in which ECDL is delivered and varies greatly in accordance with the project. There is no consistent 'one -fits-all' solution that is applied across all programmes. Data is collected on a monthly or quarterly basis and collecting, analyzing, and reporting on user data is realized inside the delivery organisation.

Impacts Assessment Analysis Grid: International Computer Driving Licence

1: Profile of the Initiative

How long has it been operating?	The programme was launched in 1997
Geographical areas	ICDL is available in 148 countries around the world across 5 continents
Social actors involved	Public bodies, private companies, universities non-profit organisations, education and training centres and primary and secondary schools accounting for 24.000 approved test centres
Other partners involved	Extensive range of partners, including EU and national government agencies; EU and international certification and VET bodies. ICDL Foundation/ECDL is also involved in a range of social inclusion projects focused on improving digital and media competences in many countries, involving NGOs' commercial organisations, community organisations and national, regional and local government
Target Groups (beneficiaries)	Target users of those organisations include socio-economically disadvantaged backgrounds and geographically marginalised areas (young people, IEM, women, low skilled, elderly, unemployed)
Participation/ Utilisation	Over 9 million people have participated since 1997
Services provided	Training, digital skills and certification
Use of ICTs	The ICDL certification programme consists of modules which define the skills and competencies necessary to be a proficient user of a computer and common computer applications. Each module provides a programme of up-to-date skills and knowledge areas

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[76] Source: www.icdlgcc.com/about_us/

[77] Source: http://www.icdlgcc.com/Programmes/icdl.html

	which are validated by a test. The certification is awarded to candidates who complete a minimum of 7 modules from those available (basic concepts of information technology (IT), using the computer and managing files, word processing, spreadsheets, databases, Presentation, Information and Communication, Security). eLearning platforms have been developed in order to meet the training needs and requirements of various groups and they can be provided through web-based e-learning systems and mobiles

Section 2: Outputs, Outcomes and Impacts

Outputs

Output	How output measured	Results
Provide opportunities to increase individual digital competences	Service utilisation – number of people taking training and number of people certified	Around 9 million certified worldwide

Outcomes Grid

Outcome	How outcome measured	Results
Increased Digital skills	ICDL tests skills after having taken a module and number of people certified	Varies country to country. Impacts assessment in Romania showed 98% of candidates obtaining the ECDL certificate.
Improved social inclusion	User surveys and external evaluation	Varies country to country. Example of study in Ireland showed 83% of adults experiencing disadvantage who undertook ECDL certification saw a significant improvement in their IT skills
Higher Qualifications leading to increased workplace skills	ICDL certifies training taken when at least 7 modules are successfully completed	Varies country to country. Example of study in Ireland showed 76% of Irish adults returning to education or unemployed adults who have undertaken ECDL training and certification experienced a significant improvement in their IT skills

Impacts Grid

Impact	How impact measured	Results
Reducing digital divide	ICDL and external studies conduct macro-level analysis of contribution of ICDL certification to digital access, effects on employment and effects on social inclusion, using CBA, SROI.	The 2003 "Cost of Ignorance" study done in Italy and commissioned by AICA (Associazione Italiana per Informatico ed il Calcola Automatico) measured the extent of productivity savings and the reduction of hidden costs due to ECDL/ICDL certification. The study found that ECDL/ICDL certification resulted in an average of 10% reduction in time spent carrying out computerised tasks, and a 47% increase in competence from pre-training levels.
Increasing Employability	Cost benefit analysis; external impacts studies	Irish Impacts Study (O'Donnell, 2003) showed that within a 6-year period, the ECDL had created direct or indirect employment for more than 4,400
Supporting economic performance at national level	Cost-benefit analysis (business surveys; interviews; statistical modelling)	ECDL in Ireland Impact Study (2003) showed that since its introduction in 1997, the ECDL had generated benefits

	to the Irish economy in the order of €362 million through: building the IT certification industry; increasing IT skills; developing the IT training and testing services sector; developing the IT training products sector.

Other aspects of the initiative evaluated	ICDL Quality Assurance systems support regular monitoring of implementation and management of the programme.

3: How outcomes and impacts are assessed

Evaluation/impacts assessment approach used	Evaluation and impacts assessment is complex and takes place at a number of levels. At the macro-level, ICDL/ECDL use a 'stepped model' as the conceptual basis for calculating impacts. It posits four levels of proficiency: awareness; literacy; competence and expertise. These correspond with four levels of 'engagement': interaction with ICT; societal inclusion; workplace inclusion and advanced job role. This model underpins the ICDL approach to establishing outcomes for knowledge and skills development. These reflect ongoing efforts at EU level to formalise learning outcomes across all disciplines, in both the employment and education sectors, for example through the European Qualifications Framework (EQF). The structure of ECDL Foundation's certification programmes is in line with this shift towards learning outcomes, and so is bridged to the individual level of impacts assessment, since the testing and certification programme is based on assessing the extent to which upon successful completion of a programme, an individual is able to demonstrate a level of ICT competence, in the practical sense, in a range of commonly used applications. These measurable outcomes are in turn linked to demonstrating potential outcomes for other key stakeholders, for example, a prospective employer.
	A third level of impacts assessment then uses these measurable outcomes as a basis to calculate financial and social returns associated with investment in training and certification, both at the individual level and at the aggregate level. This has been done both internally and through a wide range of IA studies, for example The 2003 "Cost of Ignorance" study done in Italy and commissioned by AICA (Associazione Italiana per Informatico ed il Calcola Automatico, which measured the extent of productivity savings and the reduction of hidden costs due to ECDL/ICDL certification; the 2001 Cap Gemini Ernst & Young study assessing the contribution of ECDL/ICDL training to increasing productivity; the 2003 iTech Research study into the impact of ECDL on the national and regional economy.
	The fourth level of IA mainly consists of 'ad hoc' case studies of ICDL/ECDL outcomes and impacts on a sectoral basis, carried out or commissioned by the ICDL Foundation, or by other actors who have been involved in programmes using the programme in social inclusion interventions. Examples are Manchester Health Authority evaluation of its pilot ECDL project, which focused on productivity savings of employees in work situations, and the Romanian National Agency of Civil Servants (NACS) evaluation of the impacts of the ECDL training programme for 12,000 civil servants. This used secondary data analysis (attendance and test scores) combined with participant pre-test/post-test surveys to assess outcomes and impacts
Why approach chosen	The IA methodology attempts to make a bridge between assessing individual outcomes and impacts (through test scores) and macro level impacts by using CBA and SROI methods to aggregate effects. This is in line with the ICDL/ICDL vision and mission of 'enabling proficient use of Information and Communication Technology (ICT) that empowers individuals, organisations and society' and the desire to demonstrate that its programmes have real impact at the EU policy level.
Evolution of evaluation/IA approach	Since its inception, ICDL has increasingly moved towards linking impacts assessment to broader policy issues at EU level associated with agendas and objectives like the Lisbon agenda and 'EU2020'. ECDL Foundation has been a key stakeholder in major policy initiatives like the CEN Workshop on ICT Skills, which led to the production of a European e-Competence Framework (e-CF) for IT professionals that has identified the competences that will be required of IT professionals to enhance European productivity and competitivity. This will in turn lead to a similar framework for end-users which is

	due to be completed in 2012. This End-User e-Competence Framework will identify the key ICT competences that an individual should possess if they are to be considered proficient in the use of ICT. This high level policy involvement supports the foundation and the programme in evolving its certification programmes and also the outcomes identification against which its performance is measured.
Definitions and sources of information	ICDL Foundation 'White Paper' (2011) MMTSO on-line survey

IA Data collection grid

- Method used,
- The source of data provision,
- The quantity of data collected,
- Who is involved in collecting the data,
- The type of data collected and what it measures,
- What the data are used for,
- How often the data are collected.

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
Individual testing of digital competences through ICDL programmes	Participants on ICDL programmes	9 million	ICDL national Operators	Test results on practical skills and competencies on seven modules covering computer theory and practice	Certification Monitoring	Continuous
Impact Assessment studies	Varies – includes programme users; national case studies; stakeholders	Variable	External consultants. ECDL management	Multiple: CBA and SROI (financial and social return on investment; contribution to economy); impacts on digital divide; social inclusion impacts	Outcomes and impacts assessment	Variable

Quality control	ECDL Foundation defines Quality Assurance Standards, which all national operators must adhere to in the implementation and promotion of certification programmes. It carries out site visits and audits of the National Operators of ICDL programmes, and all accredited test centres within a country are regularly audited by the national operator. ECDL Foundation has established a Quality Management System based on the internationally recognised quality standard ISO 9001: 2008. The QA system and procedures include evaluation of the assessment processes and tools used in competence assessment and certification.
Evaluation/impacts assessment costs	No data available
Problems experienced in carrying out evaluation/impacts assessment	The main problems have been technical, in the sense of developing assessment and modelling techniques to reflect economic and social returns.
How problems addressed	Continuous updating of knowledge through participation in policy and practitioner networks
Scaling up of data to macro level	The ICDL/ECDL methodology provides a good example of how micro-level evaluation data collected through individual test metrics can provide inputs to IA modelling at the aggregate level, including Eurostat indicators that measure things like digital readiness, digital access and social inclusion.

3.5.2 Assessment of Scenario 2

Strengths of the IA approach	Provides a simple, quantified and relatively objective summary of intervention impact. Analysis results are easy to interpret and communicate to decision-makers, funders and partners.
	Can be used in 'ex ante' mode to support programme design.
	Can be used to assess the sustainability/replication of an intervention, e.g. providing guidance on whether intervention is self-viable, and how much support is required; on cost of replication and rolling out.
	CBA and SROI are well-established approaches, with a sound conceptual and methodological basis and an extensive practice and knowledge base. Standardised procedures, tools and metrics are well-established.
	In principle, SROI can be used as a vehicle for supporting participative stakeholder engagement and reflecting the different voices of stakeholders, including those who typically lack 'power'.
	External Accreditation: The SROI Network offers a peer-reviewed accreditation process.
Weaknesses and problems	Identifying economic and social cost and benefit criteria and quantifying them can be complex and problematic, especially for intangible costs and benefits. Despite the high degree of standardisation, there is a degree of subjectivity in defining criteria and measures. Research suggests that assessment measures tend to be decided on by a few staff, funders and commissioners with little evidence of wider consultations with different stakeholders.
	The scope and flexibility for contextualisation of methods is constrained, which may cause problems given the diversity of grass roots actors and interventions. However, some SIM approaches – particularly those used in 'third sector' – have been specifically designed to be adaptable to particular organisational needs.
	In turn, cost-best methods and SROI can be seen as 'esoteric' by grass-roots organisations, and its 'financial', 'statistical' and 'remote' image can be seen as out of touch with the participatory and collegiate ethos of the grass roots environment. Research suggests that grass roots organisations see SIM and SROI as devices to 'monitor and control' staff.
	Requires a level of competence and technical skills in implementation that is likely to be in short supply in this environment. However, some SIM approaches – e.g. SOUL – have been specifically designed for more 'basic' use.
	Limited analysis of what causes changes and comparison to what might have happened without the intervention being evaluated (counterfactual).
	Limited embeddedness in organisational learning. Research suggests SROI and SIM done typically as 'one-off' to please funders.
Relevance of the approach to the MIREIA objectives	Cost based methods, including SROI, lack the embeddedness in the 'ICT' environment that characterises scenario 1. However, the approach has a strong immersion in social interventions, philanthropy, community development and empowerment. The ECDL example also reflects an implementation of the approach that involves stakeholders dealing with eInclusion at its core. However, there is a narrow focus on digital literacy in determining socio-economic outcomes and impacts. ICDL shows a high level of acceptance broadly in the einclusion field, with a high profile, and high level of diffusion across countries, sectors and stakeholders and well-cited in policy, academic and practitioner circles. The 'cost' dimension is a key area in the MIREIA agenda, and one that is relatively under-developed.
Transferability of 'good practices' to the MIREIA evaluation framework	A cost dimension should be prioritised in the MIREIA evaluation framework. SROI offers in principle the potential to embed a cost dimension in impacts assessment that reflects the social dimension as well as enabling multi-stakeholder engagement in the design and implementation process.
	Specific good practices that could be transferred are:
	• The ECDL Quality Assurance system and procedures,
	• The digital competence testing methodology and metrics, which provide a standardised, validated and evidence-based benchmark for grass roots organisations to assess key outcomes at the individual level, and which can be bridged to high-level policy objectives, such as EU2020, and their measurement at the EU level.
Multi-dimensionality	In the ICDL case, the measurement is exclusively on digital literacy. However, other SIM approaches – for example SOUL – have been developed specifically to measure social inclusion outcomes – e.g. on 'soft outcomes' measures like health, well-being and interpersonal skills. These approaches also provide tools to enable grass roots organisations to measure beneficiaries' 'distance travelled' towards an expected outcome.
Usability for grass roots organisations	The evidence suggests potential problems for incorporating SROI in the MIREIA evaluation framework and tools. The issues are likely to focus on: acceptance of the financial focus of the approach within the grass roots culture; the technical competences required to design and implement the approach; the degree of adaptation required to contextualise it to the diverse needs of grass roots organisations.
	However, research from the UK suggests some success in use by grass-roots organisations – particularly SIM methods adapted specifically for this sector.

3.6 Review of Scenario 3: Outcomes Identification as a Collective Practice

Outcomes identification as a generic IA 'framework' does not sit easily within the evaluation and impacts assessment literature. Outcomes identification is typically approached as a component of a broader evaluation design that links impacts assessment to 'theory of change'. Outcomes identification has therefore been most strongly influenced by theory and practice developed in logics of intervention and logic modelling. 'Logics of intervention' are defined by the European Commission as ''the conceptual link from an intervention's inputs to the production of its outputs and, subsequently, to its impacts on society in terms of results and outcomes'[78] As part of this logical framework, outcomes definition can be seen as the first step in developing a cycle of assessment that links an intervention logic to its effects. Outcomes definition needs to specify an explicit theory of how and why a programme or project might cause or have caused an effect and the use of this theory to guide future programme implementation and evaluation.[79],[80] This explains the evolution of what has been termed the 'SMART' approach – outcomes need to be Specific, Meaningful, Attainable, Relevant and Timely. It could be argued that 'SMART' outcomes have become almost a condition of the funding requirements of government departments and philanthropic donors.[81] On example is the UK's Big Lottery Fund (BIG) – which describes itself as an 'outcomes funder'.[82] BIG's approach funding guidelines and procedures require funding submissions to clearly link their project objectives to BIG's own over-arching objectives by clearly defining their outcomes in 'SMART' terms, using what they call a 'CES Planning Triangle' This specifies the overall aim of the project, its activities and its intended outcomes.

Outcomes identification can thus be seen as part of a broader situational analysis. McLaughlin and Jordan (1999)[83] argue that the situation statement is crucial in that it provides an opportunity to communicate the *relevance* of the intervention to stakeholders. The situation statement is necessary to provide a justification and rationale for the subsequent choices made about programming goals, expected results, activities, target groups and outputs, and to provide a yardstick to assess whether these choices are the right ones. McLaughlin and Jordan suggest that relevance needs to be demonstrated in the situation statement and outcomes identification through three elements: a statement of the problem, (What are the causes? What are the social, economic, and/or environmental symptoms of the problem? What are the likely consequences if nothing is done to resolve the problem? What are the actual or projected costs?); a description of who is affected by the problem. (Where do they live and work? How are they important to the community? Who depends on them–families, employees, organizations?); who else is interested in the problem? Who are the stakeholders? What other projects address this problem?

Outcomes identification explicitly makes a bridge between the needs of beneficiaries targeted by the intervention and the measurable outcomes against which an intervention can be judged. Taylor-Powell and Henart (2008) suggest that outcomes identification will identify the priorities an intervention has to address. These priorities reflect three things: the 'needs and assets' of a programme; the problems it addresses and the 'symptoms' of these problems; the stakeholder needs and how to engage them in the programme. These in turn will shape the inputs, outputs and

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78 European Commission, DG Budget, (2004), 'Evaluating EU activities: a practical guide for the Commission services', July 2004, pp. 87 and 106, http://ec.europa.eu/dgs/secretariat_general/evaluation/docs/eval_activities_en.pdf

79 Weiss, C., (1995), "Nothing as Practical as Good Theory: Exploring Theory-Based Evaluation for Comprehensive Community Initiatives for Children and Families." In *New Approaches to Evaluating Community Initiatives: Concepts, Methods, and Contexts*, ed. James P. Connell et al. Washington, DC: Aspen Institute.

80 DTI, (2006), Evaluating the impact of England's Regional Development Agencies: Developing a Methodology and Evaluation Framework, DTI Occasional Paper NO 2, http://www.sqw.co.uk/file_download/25

81 www.nao.org.uk/guidance

82 www.biglotteryfund.org.uk

83 McLaughlin, J.A., Jordan, G.B., (1999), Logic models: a tool for telling your program's performance story. Evaluation and Planning 22:65-72.

expected outcomes of the programme logic model. Anderson, (2008)[84] takes this dimension of outcomes identification further, arguing that 'needs' are never static, but evolve as the social, economic and cultural environment in which the programme is situated evolves, and indeed highlights the fact that 'needs' can change into 'transformed needs' as a result of the effects of the programme itself. It suggests the desirability of building in a 'developmental' component to outcomes identification within logic modelling.

This shifts the deployment of outcomes identification from a 'static' activity in which 'background information' about the environment in which a programme operates and about the people affected by it is collected to one in which the information gathered about needs is used to construct an explanatory theory about why the problems identified in this environment have occurred; what needs to be done about them, and what are the predicted results of doing something. It suggests that outcomes identification should provide a tool to enable stakeholders – particularly programme beneficiaries – to play a role in developing the programme 'theory of change', including setting out how they can actively participate in the programme itself (Connel and Kubish, 1998).[85] This echoes Chen's (1990) view of outcomes identification as part of a process in which stakeholders and evaluators "co-construct" the initiative's theory so as to maximize its utility for all, as a planning and management tool, and as a vehicle for participant empowerment.

In the MMTSO study, we focused in particular on mapping and assessing ways in which stakeholders become engaged in the 'co-construction' of the 'intervention logic' of an initiative and how this affects the 'robustness' of the impacts assessment results produced through evaluation activities. The two case studies reported below – VET4e-I and 'Realising Ambition' illustrate different ways in which outcomes identification as a collective practice works, how new tools to support stakeholder engagement are being developed and applied, and how IA can be linked to broader objectives of knowledge dissemination and 'cultural learning'.

IA Methodological summary

The methodological approach commonly used in this scenario reflects the following attributes:

Type of data	Combines primary and secondary data. Scoping methods – for example literature reviews; rapid appraisal; stakeholder mapping – are often used to establish initial 'situational analysis', feeding into logic models and outcomes identification. IA data gathering combines secondary data analysis (e.g. social inclusion indicators at local level; content analysis of programme and project deliverables) with surveys, focus groups, observation.
Data gathering methods	Logic frameworks; CBA ; computer-generated data (utilisation rates; Google analytics); RCTs; case studies; user surveys; focus groups; interviews; observation
Evaluation paradigm and disciplinarity	Rooted in Rationalist/Pragmatic-realist paradigm. Blends experimental and quasi-experimental evaluation (including use of RCTs) with systems-based analysis and constructivist/participatory evaluation. Integrates wide range of disciplines – economics; sociology; anthropology
Robustness (on Maryland Scale)	Ranges between Level 1: Correlation between an intervention and a measure of desired impact at a single point in time and Level 5: Random assignment and analysis of comparable units to program and comparison groups.
Coverage of evaluation life cycle	Can cover spectrum of evaluation from ex-ante (focusing on outcomes definition and construction of logical frameworks) to ex-post summative assessment and application of learning from IA to further implementation (e.g. through scaleability and replication)
Level	Mainly pitched at programme and intervention level but typically uses assessment of individual outcomes to extrapolate aggregate impacts.
Evaluation purposes	Programme design; process evaluation; accountability; economic and social return; outcomes and impacts

[84] Anderson, A., (2008), A practical guide to theory development, Aspen Institute.
[85] Connell, J., Kubisch A., (1998), Applying a Theory of Change Approach to the Evaluation of Comprehensive Community Initiatives: Progress, Prospects, and Problems.

Evaluation audience	Covers spectrum of audiences: policy-makers; funders; programme and project managers; beneficiaries
Resource requirements	Depends on the scale and comprehensiveness of the IA approach. Use of logical models, RCTs demands high level of technical competences and resources.
Generalisability	Highly generalizable since based on embedding common IA frameworks and outcome measures within interventions.
Comparability	Pluralist approach enables contextualisation to support comparison between projects.

3.6.1 The case studies

3.6.1.1 VET4e-I

Summary: VET4e-I
VET4eI is a research project funded under the EC Leonardo Programme from November 2009 until the end of 2012. It involves a consortium of organisations located in Spain, Bulgaria, France and Italy (Dot.eu, Associazione ARCI, Lapis scarl, Fundacion Esplai, ICTD Bulgaria, la Ligue de l'Enseignement). The consortium has also established partnerships with universities (Technische Universisat Dortmund/sfs, Sozialforschungsstelle/TUDO), a private training and certification center (NFREP) and different intermediaries such as telecentres networks (red de Telecentros, Guadalinfo, PAAS, Cyberbases), public libraries and numerous non profit organisations. One of the principal aims of the project is the development of a web-based service for a training curriculum for around 380 e-Facilitators who work with excluded and at risk groups to improve their digital competences, i.e. the programme provides training for trainers. Target beneficiaries of the organisations involved include young people, immigrants and ethnic minorities, rural communities, unemployed, elderly, low skilled, women, other intermediaries, non profit organisations, people in precarious work, low income people. Most of the organisations involved in the consortium provide training and digital skills programmes based on the use of web-based ICT. The IA approach aims at evaluating the increased digital competences and 'work competences' of the e-facilitators, as well as the contribution the programme makes to increasing knowledge sharing and sensemaking between grass roots organisations like telecentres and public libraries working in the field of social inclusion. Around 1000 European eFacilitators were reached and kept informed through the dissemination channels of the project. At the broader level, the development and use of a knowledge sharing and 'sensemaking' methodology based on 'transculturation' aims to support the transferability and adaptation of the VET4eI approach and tools into the wider ICT grass roots communities of practice at the European level.

Impacts Assessment Analysis Grid: VET4e-I
1: Profile of the Initiative

How long has it been operating?	Research project. Runs from November 2009 until the end of 2012
Geographical areas	Spain, Bulgaria, France and Italy
Social actors involved	Organisations providing training and digital skills programmes based on the use of web-based ICT : Dot.eu, Associazione ARCI, Lapis scarl, Fundacion Esplai, ICTD Bulgaria, la Ligue de l'Enseignement)
Other partners involved	Partnerships with universities *(Technische Universisat Dortmund/sfs, Sozialforschungsstelle/TUDO),* a private training and certification center (NFREP) and different intermediaries such as telecentres networks (red de Telecentros, Guadalinfo, PAAS, Cyberbases), public libraries and numerous non profit organisations
Target Groups (beneficiaries)	The direct users are the e-facilitators - the intermediaries who are trained to then train end users. 'End' beneficiaries are Young people, immigrants and ethnic minorities, rural communities, unemployed, elderly, low skilled, women, other intermediaries, non profit organisations, people in precarious work, low income people
Participation/ Utilisation	380 European eFacilitators. Around 1000 European eFacilitators were reached and kept informed through the dissemination channels of the project
Services provided	The main service is a training programme to improve the digital competences and also management and networking skills of eFacilitators who in turn provide training to improve the digital skills of end users in telecentres and similar 'grass roots' organisations across Europe. The programme consists of 12 modules, some of which are generic (e.g. building a network culture; telecentre sustainability) and some of

	which target the digital competence needs of specific end user target groups (e.g. ICT for immigrants).
Use of ICTs	A web-based service for a training curriculum for e-Facilitators for social inclusion focused on the development of key competences of users at risk of social exclusion

Section 2: Outputs, Outcomes and Impacts

Outputs

Output	How output measured	Results
Utilisation of e-facilitators training programme	Number of efacilitators participating in programme	380 European eFacilitators participated

Outcomes

Outcome	How outcome measured	Results
Completion of training	% learners achieving certification	76% achieved certification
Increased professional development	% of enrolled learners who believe that now they can work better in a telecentre	89% believe they can work better
Increase in further learning	% of enrolled learners who would like to attend other development course	96% expressed desire to complete another CDP course
User satisfaction	Rating of achievement of expected learning outcomes (scale of 1-10)	Average score: 8
Increased digital skills	Pre-test/post-test self-evaluation of competences on 10 point rating scale on 9 competence dimensions	Varies between dimensions and countries. Highest average score: 8 (basic software); lowest 3 (use of Web 2.0)
Increased management and networking skills Self Esteem	Self-assessed evaluation of competences on range of 'soft skills (self-esteem; team working; dealing with users; networking; public relations;) on 10 point scale	Highest: dealing with users (avg. 7.8). Lowest economic planning and management (4.6).

Impacts

Impact	How impact measured	Results
Insertion of end users into labour markets	Not addressed due to lack of time and resources. Application for funding for follow up impacts assessment in pipeline	N.A.
Increase in community social capital in telecentre locations	Not addressed due to lack of time and resources	N.A.
Increase in organisational capacity and learning of grass roots networks	Not addressed due to lack of time and resources	N.A.

Other aspects of the initiative evaluated	Monitoring of implementation of project (process evaluation). Assessment of knowledge exchange between grass roots actors in the field

3: How outcomes and impacts are assessed

Evaluation/impacts assessment approach used	The overall methodology is a mix of different methods, comprising: an organisational check-up; sample survey design and analysis criteria, and procedures for stakeholder co-operation. The organisational check-up draws on principles and practices in socio-technical systems analysis.
Why approach chosen	The overall IA approach and metrics for competence testing were developed by the project consortium – based on review of state of the art. The main influences shaping the approach were drawn from CEDEFOP competence 'glossaries'; and quality models derived from the European Quality Assurance Reference Framework (EQARF), the European Common Reference Framework, the European QA Standards and Guidelines in the European Higher Education Area, the European Framework for Quality Management (EFQM) and the ISO 9000 main standards. In particular, the QA Model that provided the basic

	guidelines and dimensions to be assessed is the one elaborated by the European Association for Quality Assurance in Higher Education
Evolution of evaluation/IA approach	No major changes
Definitions and sources of information	Final Report on Translocalisation and Transculturation (2011) Pilot elearning testing: profiles of the learners and of their organisations (2011) The educational services quality assurance (esqa) model (2011) MMTSO Key Informant Interview

IA Data collection grid

- Method used,
- The source of data provision,
- The quantity of data collected,
- Who is involved in collecting the data,
- The type of data collected and what it measures,
- What the data are used for,
- How often the data are collected.

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
Participant surveys	e-facilitators participating on training course	380	e-facilitators	Digital competences Work competences User satisfaction	Outcomes assessment	Pre-test/ Post-test (over 2 years)
Analysis of attendance data	e-facilitators participating on training course	380	e-facilitators	Statistics on service utilisation	Project monitoring	On-going over 2 years
Competence assessment scales	e-facilitators participating on training course	380	Project managers	Digital competences Work competences	Outcomes assessment	Pre-test/ Post-test (over 2 years)

Quality control	QA was implemented through a dedicated monitoring system. The pre-piloting phase was monitored on a weekly basis using peer review and 'skyping' between trainers, partners and the project Quality Monitoring Team. Ongoing feedback was then fed into review and modification of the course structure, content and implementation, as well as the evaluation and monitoring process.
Evaluation/impacts assessment costs	No accurate quantitative data available on costs. Much of the cost was supported by volunteers who also acted as monitoring points of reference. Also the professionals involved input significant 'in-kind' resources in the IA
Problems experienced in carrying out evaluation/impacts assessment	'Evaluating at a distance' – IA data from questionnaires and interviews and remote communications like skype. The 'end user voice' tended to be not sufficiently reflected through these methods. There are related issues around respondent compliance; questionnaires do not provide sufficiently rich data. Problems in interpretation of questions. Some pre-testing of instruments was carried out, but there were problems around interpretation of terminology in the survey and self-assessment instruments and in translation of questions in instruments. Problems of standardisation – there are differences between the metrics used to assess digital competences that reflect the standards of the recommendations from the European qualification framework (EQF) and how these are used at national level for self assessment of learning outcomes. This reflects a more general problem of interpretation of the self-assessment metrics in the countries participating in the pilots. This leads to cost issues. The project managers would have liked to supplement remote IA with field visits – but resources are restricted particularly in EU-funded

	projects
How problems addressed	The QA system enabled some of the issues around interpretation and standardisation of questions to be solved. Resource constraints meant that issues around 'evaluating at a distance' were not addressed.
Scaling up of data to macro level	Work carried out by the partners in programmes providing support to immigrant groups supported by the ESF demonstrated that it was possible to develop monitoring indicators that were consistent with those used by Eurostat. However, these are 'aggregation measures' that enable monitoring rather than impacts assessment. With impact assessment, you don't get any real bridging between micro evaluation on the ground and macro level because the difference in scale is too great. Eurostat should include more qualitative data drawn from micro-level. The granularity required at local level is much greater than is required at macro level.

3.6.1.2 Realising Ambition

Summary: Realising Ambition
Realising Ambition is a major new programme funded by the UK Big Lottery Fund (BIG). Its aim is to support 25 projects that are working with young people (8-14 years) to reduce risk of offending and to support young people in realising their potential. The explicit objective of the programme is to provide financial and technical support to enable the projects to 'replicate', i.e. spread their methods and practice into new geographical areas or to new/different audiences of children and young people. A key feature of the programme is its emphasis on demonstrable impacts, supported by robust evidence. Projects were selected for funding in part on the basis of their 'evaluation quality', including their capacity to implement randomised controlled trials (RCTs) to collect evidence on outcomes and impacts. This reflects another key feature of the evaluation approach used in the programme – the blending of 'experimental' IA methods with a participatory approach that engages programme and project beneficiaries in identifying expected outcomes and impacts and in working with external evaluation specialists to deliver IA results, and to learn from them by linking impacts 'evidence' to learning and replication. The evaluation, learning and replication 'journey' is facilitated by an on-line system – Views – which uses ICTs, including social networking tools, to capture data on progress towards outcome goals, and to support project and programme 'sensemaking'.

Case Study Analysis

Impacts Assessment Analysis Grid: Realising Ambition

1: Profile of the Initiative

How long has it been operating?	New initiative. Application process for funding ended October 2011. 25 projects finally selected for funding. Launch date for programme May 2012
Geographical areas	National UK
Social actors involved	Programme co-ordinated by UK 'Partner' - a consortium co-ordinated by Catch-22 (charity supporting young people); Social Research Unit (charity also working with young people); Young Foundation (social enterprise); Rathbone (national youth charity); Substance (social enterprise working in the youth, sport and activities Sector)
Other partners involved	Tavistock Institute (evaluation consultant). Of the 25 funded projects, 88% are run by charities; with the remainder run by Universities; the NHS and public sector agencies.
Target Groups (beneficiaries)	25 projects working with young people (8-14 years) to reduce offending. 3 projects target individuals; 7 schools; 3 communities; 4 groups; 5 family; 3 multiple target. There are three significant groups with overlap for the target groups: young people with high risk of offending (9 interventions), children with some form(s) of difficulties (7), and young people in areas of deprivation (6). Apart from these general categories, 3 interventions target looked after children, 3 interventions target young people with substance abusing parents, and 2 interventions target ethnic minorities.
Participation/ Utilisation	Projected participation: individuals 1395; schools 196,000; communities 44,000; group 9,800; family 2325; multiple 4620.

Services provided	The programme will invest £25 million in 'outstanding' projects that have proven their effectiveness in helping children and young people fulfil their potential and avoid the pathways into offending. It provides funding to selected projects to support their 'replication', i.e. spreading a proven intervention into new geographical areas or to new/different audiences of children and young people. The UK Partner will provide the projects with a combination of grant funding and support to enable them to replicate and sustain delivery
Use of ICTs	Varies across projects. The evaluation/IA approach involves innovative use of ICTs. A key component of the data capture, analysis and 'learning' process for the evaluation is the 'Views' system. This is an on-line monitoring and evaluation system that enables commissioners, funders and deliverers to store and access evaluation data, including functions that link 'outputs' (such as delivery programmes and session attendances) to personal outcomes and organisational objectives. Real time access to the data enables users to query which delivery strands are achieving the best outcomes and which are delivering the best returns on investment. Multi-media functions enable wide range of content, e.g. videos to be stored as 'case studies' of individual outcomes and impacts and integrated with quantitative data. Programme also includes an 'on-line learning network' to support knowledge exchange between stakeholders, including policy-makers.

Section 2: Outputs, Outcomes and Impacts

Expected Outputs

Output	How output measured	Results
Replication of most effective and proven youth offending intervention models and practice	Number of young people projected to be reached	Group interventions: increase to 5.4 times current level over 5 years Family interventions: increase to 4.6 times current level over 5 years School interventions: increase to 2.3 times current level over 5 years Multiple interventions: increase to 1.9 over 5 years Community interventions: increase to 1.8 over 5 years Individual interventions: increase to 1.6 over 5 years

Expected Outcomes

Outcome	How outcome measured	Expected Results
Improved engagement with school	Reduction in truancy	Reduced incidence of truancy and drop out
Improved behaviour	Reduction in antisocial behaviour	Reduced incidence of anti-social behaviour
Improved emotional well-being	Increased self-reported emotional well-being	Increase in number of young people reporting improvement in emotional well-being
Improved relationships	Increase in strength of family and social interactions	Increase in number of young people reporting improvement in strength of family and social interactions
Stronger Communities	Increase in social capital	Increase in measurement of community social capital

Expected Impacts

Impact	How impact measured	Expected Results
More children and young people benefit from opportunities and support enabling them to fulfil their potential, avoiding pathways into offending	Statistical analysis of participation rates in funded programmes	Increase in number of young people benefiting from participation by factor of between 1.6 and 6 times current levels, depending on type of project
Organisations working with children and young people have better evidence of what works in avoiding pathways into youth offending and are able to replicate the most effective approaches	Analysis of 'replication journeys' of projects using data collected through 'Views' system. Projects assessed through cost benefit analysis; social inclusion measures; reductions in youth offending rates	Most projects achieve 'gold standard' in applying RCTs in impacts assessment.
Big Lottery and others learn about how they can best identify and support the replication of proven practice.	Programme includes 'learning activities' intended to disseminate good practices. Analysis of replication data will provide measure of spread of practice and knowledge	Programme results feed into and influence national policy making.

Other aspects of the initiative evaluated	External impacts evaluation is linked to external 'process' evaluation which covers: analysis of selection process for funded projects; systems audit of programme delivery and management; cost analysis; mapping projects 'replication journey'; dissemination of learning from programme. Methodology based on 'theory of change'.

3: How outcomes and impacts are assessed

Evaluation/impacts assessment approach used	The IA approach combines an external programme and project audit with user-generated self-evaluation and blends experimental methods based on RCTs with participatory evaluation. RCTs are embedded throughout the programme life cycle. In the selection process, projects applying for funding were assessed in terms of a range of 'inclusion criteria' based on 'standards of evidence' and covering: 'system readiness; logic of intervention; potential impact, evaluation quality; overall cost-benefit. A key inclusion criterion was the robustness of the project evidence base. Projects were graded on a scale similar to the 'Maryland scale' with projects who had already carried out RCTs assigned a 'gold' rating. As part of the support package offered to funded projects, the programme Provider will either carry out an RCT on the project behalf or provide support and tools to enable them to carry out their own RCTs. RCT data will be supplemented with qualitative data, e.g. individual case studies, provided by projects themselves, using the 'Views' monitoring system (see above). To some extent, the Views system reflects emerging practices in 'crowd sourcing', where individual project participants play a key role in data collection.

The views system is linked to a 'logic model' which enables each project and the programme management to track performance against objectives and targets.

The evaluation/IA design includes a strong cost analysis element. This uses the WSIPP model developed by Washington State Institute for Public Policy[86] and calculates cost-benefits in terms of four summary statistics: net present value, benefit-to-cost ratio, internal rate of return on investment, and measure of risk associated with these bottom-line estimates. The cost analysis includes project-supplied data on replication costs (including evaluation and learning) collected through a survey. |
| Why approach chosen | The programme commissioners – the UK Big Lottery Foundation (BIG) – wanted to leave behind a programme 'legacy' that did not focus simply on what was done, but which provided an evidence base for learning that reflected the 'highest standards of evidence'. Moreover, they wanted this evidence to go further down the road linking policy with practice to enable projects demonstrating real impacts to be replicated across the UK on the basis of "the most effective and proven intervention models and |

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[86] Steve Aos, Stephanie Lee, Elizabeth Drake, Annie Pennucci, Tali Klima, Marna Miller, Laurie Anderson, Jim Mayfield, Mason Burley (2011).

	practice". This centralised the role of ICTs in the IA design. The standards of evidence for project selection – which also shaped the impacts assessment criteria – link to key policy objectives specified in the 'Allen Review' on offending early intervention.
Evolution of evaluation/IA approach	Programme is in its first stage of implementation. The initial changes to the evaluation IA/approach focused on tightening up the 'inclusion criteria' for selection of projects for funding to emphasise their 'evaluation quality'.
Definitions and sources of information	Programme Cost Questionnaire (DSRU, 2011) Replication Process Evaluation Inception Report (Tavistock Institute, 2012) MMTSO Key Informant Interview

IA Data collection grid

- Method used
- The source of data provision
- The quantity of data collected
- Who is involved in collecting the data
- The type of data collected and what it measures
- What the data are used for
- How often the data are collected

Method	Source	Quantity	Who involved	Type of data	What used for	Collection frequency
'Views' on-line system	Funded projects and end users of project services	25 projects. Estimated 258,000 direct users	Funded projects And beneficiaries	Level of physical and mental health Level of young people risk factors Increase in project level on 'evidence ladder'	Outcomes and impacts assessment	Ongoing
Survey	Funded projects	25 funded projects	Funded projects supply data	Strengths and difficulties of projects	Project and programme monitoring	Annual
RCT	Funded projects	4 'Gold standard' projects	Project managers and beneficiaries	Numbers of young people reached Level of young people risk factors	Outcomes and impacts assessment	Pre-test/ Post-test
Cost benefit Analysis	Funded projects	25	Funded projects supply data	Start up costs Implementation costs Replication costs	Replication cost and social rate of return	Annual

Quality control	Quality control is embedded in a two main ways. First, the programme architecture is based on a multi-partnership provider consortium which enables 'triangulation' of IA data. An external evaluation consultant will monitor the 'process' of the programme, including assessment of the impacts evaluation process. Second, the 'Views' system enables on-going monitoring of IA data to be carried out.
Evaluation/impacts assessment costs	408,000 euro for external evaluation. Individual projects will expend some resources in providing evaluation data. Estimated total cost of evaluation is around 3.5% of the 30 million euro budget.
Problems experienced in carrying out evaluation/impacts assessment	Too early to say.
How problems addressed	Too early to say.
Scaling up of data to macro level	The Views system enables individual projects and programme managers to map their evaluation and impacts data against local, regional and national outcome frameworks.

6.3.2 Assessment of Scenario 3

Strengths of the IA approach	Tries to find a balance between delivering robust evidence-based data on effects (using experimental and quasi-experimental methods) and engaging beneficiaries as co-producers of evidence.
	Prioritises 'sensemaking' in coming to a common understanding between stakeholders on the vision of an intervention, how this can be translated into activities, goals and outcomes and how these can be assessed.
	Establishes clearly defined outcomes definitions at the outset rather than retrospectively trying to assess impacts.
	Emphasises the importance of creating a virtuous circle throughout the evaluation life cycle that connects outcomes identification with 'learning through evidence' – makes an explicit connection between evidence and sustainability.
Weaknesses and problems	The imposition of RCTs can sometimes generate difficult cultural clashes – especially for projects whose ethos is rooted in 'community empowerment' perspectives. The imposition of RCTs can penalise projects whose objectives are 'developmental' rather than based on quantifying impacts.
	RCTs are very difficult to implement in complex social interventions, where there are typically many intervening variables that can have an effect on outcomes.
	The resource requirements necessary to carry out complex 'blended' IA approaches and methodologies put significant time resource and cost constraints on grass roots organisations. They require high levels of technical competences.
	Grass roots organisations typically operate under tight time and resource constraints. Real and opportunity costs of carrying out IA create resistance to its implementation and have negative effects on quality of data and results.
Relevance of the approach to the MIREIA objectives	Strongly embedded in grass roots culture. Established body of practice in applying approaches to ICT-mediated social interventions. Supports innovation in outcomes definition dimension of framework. Uses ICTs in innovative ways in IA approach and methods.
Multi-dimensionality	Vet4Ei specifically links the acquisition of digital skills to social inclusion 'soft outcome' measures. Realising Ambition covers a spectrum of social inclusion dimensions – including 'soft' outcomes like emotional well-being. It also considers outcomes at three levels: individual; organisational and community.
	The embededness of 'theory of change' and 'logic model' approaches in this scenario supports coverage of the entire 'impacts journey' from ex-ante evaluation design through to assessing possibilities for sustainability and replication.
Transferability of 'good practices' to the MIREIA evaluation framework	The embedding of structured IA frameworks like logic models in the core methodology of the approach can be migrated to form part of the generic elements of the framework. The use of outcomes definition methods like SMART can support standardisation of IA across the diverse spectrum of grass roots organisations and their programmes and projects.
	The approach has the potential to support a blended IA methodology that balances robust evidence-based methods with participatory methods.
	The specific good practices that could be transferred are:
	• The 'transculturation' methodology developed by VET4e-I which has the potential to support sensemaking and knowledge exchange across the diverse communities of practice in this field
	• VET4e-I's integration of digital competence assessment metrics to EU standards like EQF. This could provide the basis for standardisation of digital competence assessment in the field.
	• VET4e-I's 'organisational check-up' methodology, which could plug a clear gap in current IA approaches where tools to assess organisational impacts are relatively under-developed
	• The Realising Ambition project selection criteria, based on 'standards of evidence' and covering: 'system readiness; logic of intervention; potential impact, evaluation quality; overall cost-benefit. This could provide the basis for a checklist to assess programme and project IA capacity
	• The Realising Ambition 'Views System'. This reflects significant innovation in using smart technologies to make a bridge between IA and evidence-based learning. It also provides inputs to developing innovative ways to

	engage stakeholders in data collection, and in the 'co-production of evidence' • The Realising Ambition CBA model, which could provide the basis for standardisation of calculating the value of interventions, as well as providing tools for projects to assess the costs of monitoring, IA and sustainability
Usability for grass roots organisations	In principle, this scenario reflects new ways of engaging stakeholders – particularly programme beneficiaries – in new roles as co-producers of evidence. However, the complex and sophisticated methods and tools used, as shown by the two case study examples, pose significant challenges for grass roots organisations in terms of time and resource expenditure, and in the technical competences required to implement them. The use of experimental and quasi-experimental data collection methods potentially poses a culture clash in an environment that is characterised by a participatory ethos. The approaches require significant logistical and management inputs which in turn imply a high level of evaluation support for projects, with a corresponding cost.

3.7. Additional Documentation and Analysis

3.7.1 Focus of this section

As reported above based on the initial documentation and analysis of the three 'scenarios of praxis' the results of the support study MMTSO wer further developed through two additional research tasks:

- The results of the Validation Workshop which was held at IPTS in Seville, and attended by a broad spectrum of experts (including academics and practitioners involved in grass-roots interventions). The aim of the workshop was to critically review the MMTSO results, and to further develop the study outputs, including its key conclusions and recommendations.
- Additional case study analysis of examples of the use of impacts assessment methods in real-world 'grass roots' interventions. This entailed additional work on two of the cases already covered ('UK Online Centres' and 'Realising Ambition') together with one example not previously covered by the study but presented in the Validation Workshop (the 'Consultant in a Box' toolkit developed by 'the Guild').

In this section the results of this additional work are presented.

3.7.2 Results of the Validation Workshop

The key learning points that can be drawn from the results of the Validation Workshop for the future development of the MERIEA framework and indicators can be summarised as follows:

- The 'Scenarios of Praxis' outlined above need to be integrated within an overall impacts assessment framework and operationalized in more practical and useable ways, with more explicit differentiation between Scenarios 1 and 2.

- The framework should not attempt to provide a 'one size fits all' solution. Though some generic elements are desirable, these need to be at a very basic level of 'building blocks', to allow enough scope for contextualisation to the specific features of particular grass roots organisations and eInclusion initiatives. The generic elements should therefore focus on a limited number of shared principles and a small number of core questions/indicators. Emphasis should be placed on supporting grass roots organisations to use robust methods and to demonstrate transparency.

- The generic methods and tools should include some form of logic model; methods to map and assess 'distance travelled'; methods to analyse cost data and cost effectiveness and methods to capture 'evolution' and progression – such as longitudinal studies and progression surveys. These tools needed to be blended with qualitative methods that could capture context. Although the workshop discussions emphasised the need to pursue 'robustness' in data collection and analysis, the consensus was that RCTs would be difficult to carry out and could meet with resistance from grass roots organisations.

- The MIREIA framework needs to clarify the distinction between outputs, outcomes and impacts and how these can be measured. Four key categories of indicators to measure these outputs, outcomes and impacts were identified: Digital inclusion (related to the social inclusion effects of digital inclusion); employability; civic engagement (participation); engagement with community and society. These need to be linked to assessing 'distance travelled'. The workshop provided some useful examples of how this could be done, for example the 'Consultant in a Box' toolkit developed by 'the Guild'.

- The MIREIA framework need to focus attention on supporting more effective quality control in data collection and analysis in the impacts assessment carried out by grass roots organisations - for example using external consultants for data analysis; using sub-samples of user surveys to check consistency of data; case studies; independent audits.

- The framework needs to be able to handle problems around 'attribution' and the contribution grass roots actors and their interventions make to changes in the lives of beneficiaries, set against the part played by other factors not connected with the intervention.

3.7.3 Additional case studies

3.7.3.1 Purposes and methodology

As noted above, the purpose of the additional case studies was to expand on the key findings of the preparatory analysis conducted; to follow up new insights that were developed in the Workshop, and to clarify some of the remaining questions the research has thrown up.

A particular objective of these additional case studies was to capture three aspects of the impacts assessment 'process', which can be seen as a 'journey' that has three main stages:

- Stage 1: Developing an approach to impact assessment that reflects organisational objectives, needs and expected outcomes and impacts – the initial formulation of the approach.
- Stage 2: Collecting data on how to monitor and measure the 'journey – the implementation of the approach.
- Stage 3: Analysing and making sense of the data that has been collected, and then applying what has been learned to making the organisation's objectives and the changes it wants to achieve more effective and more attainable in the future.

The selection of these three cases marked a shift in the 'level of analyses used in the initial documentation and analysis. In the initial stage, we focused on how grass roots organisations in the field were using impacts assessment methods and practices to evaluate the work they were doing on the ground. In the second, 're-appraisal' phase of the analysis, the focus shifted to concentrate in more depth on how these methods and practices were conceptualised and managed by actors operating at the management level.

Three case studies were selected for this additional analysis, two of which were previously covered in the initial analysis and documentation and one additional case which was presented at the Validation Workshop:

- 'Realising Ambition' – the 'BIG' replication programme supporting projects working in youth crime prevention.
- UK Online Centres – the national network of community-based centres providing funding, consultancy and training to improve digital literacy.
- The Guild – a UK consultancy providing evaluation support to voluntary and community organisations and social enterprises which has developed a toolkit 'Consultant in a Box' to help its clients develop their impacts assessment.

The case study methodology combined in-depth interviews with key informants in these organisations with further content analysis of available documentation.

3.7.3.2 Summary of the three cases

The Guild: SIM – 'Consultant in a Box'

The Guild is a UK consultancy that provides support within the voluntary, community and social enterprise sectors. It provides business support, training, consultancy and evaluation and impact assessment. In 2012 it received innovation funding from Norfolk Knowledge to develop the 'Consultant in a Box'. Norfolk Knowledge funds business innovation and provides mentoring and support for organisations trying to bring products to market. The Consultant in a Box is a toolbox aimed at supporting grass roots organisations in developing and applying impacts assessment. The

toolbox reflects the latest phase in an evolutionary approach to developing a usable IA framework and tools for grass roots practitioners. It originated as a research programme that involved working with over 200 practitioners in workshops delivering training in social impacts assessment (SIM) and in organisational consulting with around 25 grass roots organisations. The research also included reviews of state of the art in social impacts evaluation. Integration of the results of this research, based on analysis of the profiles of practitioners; their activities and their evaluation needs, led to the production of a guidebook 'Getting Started in Social Impact Measurement', in 2010, developed through the Knowledge Transfer Partnership scheme run by the UK ESRC and involving collaboration with an academic partner. The Consultant in a Box toolkit, which is currently being piloted, can be seen as a more hands-on practical version of the guidebook.

The rationale for the IA approach followed, and for the toolbox, is clearly stated: "there is no one tool that is suitable for every organisation or every purpose". In essence, the toolbox provides a framework, step-by-step guidelines and tools to enable users (i.e. primarily grass roots organisations involved in social inclusion initiatives) to develop an impacts assessment design and implementation plan that is tailored to their profile, objectives, activities and 'theory of change'. The tools include a set of worksheets to enable users to map and evaluate the options available to them to carry out impacts assessment, using criteria like motivation, readiness, capacity and desired impacts. The toolkit draws on extensive research carried out by key UK actor in the 'third sector', for example the UK Charity Evaluation Service, the New Economics and specialist academic departments like Middlesex University.

UK Online Centres

As outlined above in Section 3.4, UK Online Centres was initially a government-sponsored intervention. It now involves a multi-stakeholder partnership engaging public bodies, non profit organisations and grassroots organizations providing training, certification and digital literacy courses within around 3,800 UK online centres. These target young people, immigrants and ethnic minorities, disabled persons, unemployed, elderly, low skilled, women, low income people, people in precarious work and other intermediaries and non profit organisations working with them. The ICTs used in UK Online Centres are mainly web-based, social media and mobile.

This additional case study analysis focuses on the evolution of UK Online Centre's impacts assessment strategy, which is currently undergoing significant change, in recognition by the organisation that previous evaluation strategies adopted in the network have had limited results. UK Online Centres have a strong interest, and have spent a lot of resources, in impacts assessment, but openly acknowledge that they "are not there yet". They understand the need to assess their impact in order to better reach the needs and expectation of people socially excluded or at risk of being excluded. They also acknowledge that more and more donors are insisting on more and better evidence of the impact and return on their investment.

As a result, UK Online Centres is currently launching a new programme aimed at supporting a limited number - around 20 - of the grass roots projects they fund in order to improve their impacts. These projects have been selected because they show good potential for 'making a difference'. The overall approach and methodology for measuring and assessing impact in this programme will be to use the data collected in the interim and final reports of the projects and transfer it to one or more impact assessment frameworks. The over-arching evaluation paradigm for this evolving approach is based on action research as a means of assessing impacts in the field. Within this overall paradigm, the core impacts assessment method used is Social Return on Investment (SROI). SROI analysis will be undertaken at two levels - the individual project level and then at programme level itself. The focus of the analysis at project level is on tracking individual progression following participation in an eInclusion programme – with a particular focus on the contribution of ICTs to social inclusion; on the subsequent effects of increased digital and social skills on the individual's wider social circle (family/friends/peers); on community social capital and, ultimately, at the societal level. The

approach will establish baseline data through 'conventional' data collection tools (for example progression surveys) but will also collect data through the network's web platforms and social media, thus combining quantitative with qualitative data collection and analysis.

Realising Ambition

As described above in Section 3.6, Realising Ambition is new programme funded by the UK Big Lottery Fund (BIG). Its aim is to support 25 projects that are working with young people (8-14 years) to reduce risk of offending and to support young people in realising their potential. The explicit objective of the programme is to provide financial and technical support to enable the projects to 'replicate', i.e. spread their methods and practice into new geographical areas or to new/different audiences of children and young people. Projects were selected for funding in part on the basis of their 'evaluation quality', including their capacity to implement randomised controlled trials (RCTs) to collect evidence on outcomes and impacts. The IA approach has four main features: the use of 'experimental' IA methods based on RCTs; a participatory approach that engages programme and project beneficiaries in identifying expected outcomes and impacts and in working with external evaluation specialists to deliver IA results; learning from results by linking impacts 'evidence' to learning and replication; the use of an on-line system – Views – which uses ICTs, including social networking tools, to capture data on progress towards outcome goals, and to support project and programme 'sensemaking'.

3.7.3.3 Comparative analysis and synthesis of the additional case studies

Table 3 summarises the three cases in terms of the three over-arching impacts assessment process stages described above, i.e.: formulation of the approach; implementation of the approach (data collection); learning from the implementation.

Formulation of the approach

What is striking about the formulation of the impact assessment approaches in all three cases (and their underlying 'theory of change') is the fundamental importance assigned to 'making a difference' and of providing the most persuasive and robust evidence possible to demonstrate that a difference is being made. In turn, all three cases are attempting to develop new ways of demonstrating 'making a difference' because of their perception that 'traditional' approaches to impacts assessment have not delivered the results they desire. But what is also clear is that, although all three cases share this common impacts assessment 'rationale' and motivation, they operationalize it in different ways, albeit with some aspects of commonality.

Big Lottery's rationale and its theory of change is based on its desire to replicate effective practice so that more young people can benefit from programmes aimed at reducing offending, and on its proposition (hypothesis) that "Replication is more likely to be successful where the model or approach has been shown to be effective". Similarly, UK Online Centres want to "set up projects that make a difference" and are exploring ways of using more effective impacts assessment methods because of their perception that "existing tools and methodologies are not helpful". The Guild's 'Consultant in a Box' has been developed in response to what was seen as a clear gap in the provision of impacts assessment support to grass roots organisations in demonstrating that they make a difference– the gap having been identified through extensive review of state of the art and consultations with individual and institutional users.

On the one hand, in all three cases, there is an emphasis placed on initial diagnosis of evaluation potential. In the case of Realising Ambition, projects were selected for replication funding either because they had already carried out an RCT or because they had the potential for doing so (and would be later supported in carrying out an RCT).

Table 3: Comparative analysis of the three cases

	UK Online Centres	Realising Ambition	The Guild
FORMULATION			
Over-arching paradigm	Action research	Blended experimental/ participatory	Community development
Key methods	Social Return on Investment (SROI); progression surveys; web-based	RCTs; CBA; case studies; ethnographies; web-based	Social Impacts Measurement (SIM)
Level of assessment	Project Programme	Project Programme	Project Programme
Scaling	Individual Community National	Individual Community National	Individual Community
Why approach chosen	Existing approaches inadequate One size doesn't fit all needs	BIG – the programme sponsor – requires robust evidence that the programmes it funds make a difference.	Results of action research with 200 people (workshops) and diagnostic of 25 organisations
Theory of change	ICTs increase social capital	Interventions that make the most difference are those that need to be replicated. The ones with the most effective impacts assessment are the ones that are likely to replicate the most successfully.	Help organisations to develop their own theory of change
DATA COLLECTION			
Who identifies outcomes	UK Online Centres specialists	Specialist Delivery Partner (DSRU)	Toolbox helps organisations identify different roles and who should be involved
Who collects data	Local Centres Field workers Beneficiaries	Project staff Beneficiaries Specialist partners	As above. Emphasis on frontline staff
Secondary data	Baseline comparison with local/regional/national statistics and benchmarks (e.g. crime data)	Collection and analysis of statistical monitoring data through 'Views' on-line system	Use data already collected by projects for themselves or for funders, including statistical data, case studies
Quality control	UK HQ field visits to local centres Monitoring of data	Quality built into programme 'ex-ante' through 'evaluation quality' selection criterion. Ongoing evaluation support from Delivery partners aims to embed quality in data collection. Views system creates standardised data environment	Toolbox has 'guide to Getting Started in Social Impact Measurement'. This provides QA tools – focus on integrity and robustness of the data collected
IA costs	Not known. Calculating costs will be an objective of new approach	400k euro for external evaluation (3.5% of 30 m budget)	Toolbox costs 100 euro
Problems	Not known yet. Before: diversity of projects and organisations; lack of evaluation culture; attribution of cause to effect; insufficient granularity of data	Some projects found it difficult to produce logic model. Lack of strong experimental evidence base. Some mistrust from projects around use of RCTs	Resource and time constraints. Lack of IA skills. Data quality and robustness
Solutions	None yet	One-to-one project evaluation consultancy from Delivery Partners	Toolbox provides tailored SMI approaches geared to suit the resources and skills bases of user organisations
LEARNING			
Data reduction	Simple baseline across all projects, plus contextual analysis	Baselines and standards built into IA through common logic model and common set of outcomes indicators, plus CBA tool. Data reduction done by external Delivery partner (DSRU)	Section in the Toolbox on interpreting data. Emphasis on assessing 'distance travelled'.

Learning systems	None yet	Mentoring and coaching. Networking. On-line community. Learning 'Champions'. Thematic Groups. Replication Review Group.	Toolbox is designed to be a 'learning system'. Particular focus on promoting organisational development for grass roots organisations
Scaleability	Local – centre – national impacts on cost savings are calculated. No link as yet to EU level	'Live' data collection aggregated to programme level	Unlikely toolbox users will scale up data
Transferability to MIREIA	No 'one size fits all' model. Mix of generic and contextual tools. Action research –developmental – evolution of method. Embedding of learning Social impact measurement model	'Views' on-line data collection and analysis system. Evaluation support system. learning system. 'Standards of evidence' model as diagnostic	Toolbox is generic and can be used by any type of organisation so it might be very useful for the smaller eInclusion initiatives. Profiling and diagnostic tools particularly useful

With UK Online Centres, a new programme of support will cover 20 projects that are being selected and supported because they show potential for 'making a difference'. As with Realising Ambition, the UK Online Centre projects will be selected for funding partly as a result of the quality of their plans for measuring the social impact of their activities. In the case of 'Consultant in a Box', the starting point for the IA toolkit provided to grassroots organisations is a set of tools and guidelines that get organisations to evaluate their own IA 'quality' – by enabling them to self-diagnose on criteria like motivation, readiness, capacity and desired impacts - in order to help them design their own IA approach.

However, there are differences in how the three case examples then apply this initial diagnostic to designing and implementing IA. Whereas UK Online Centres and Consultant in a Box centralise social investment measurement – including SROI – as a core method, Realising Ambition centralises RCTs as a core method. This probably reflects differing perspectives on how to maximise 'robustness' in data collection and analysis. With Realising Ambition, the Delivery Partner tasked with designing the impacts assessment (Dartington Social Research Unit) made a strong case to the sponsor – BIG – for adopting the most rigorous possible benchmark – RCTs – in order to support replication. In the other two cases, the position is that experimental methods like RCTs pose too many problems for grass roots organisations: the approach is seen as conflicting with the participatory ethos of the grass roots world; it is seen as over-demanding in terms of the skills and resources required to implement it, and it is considered to be not flexible enough to be adapted to the diversity of the contexts in which grass roots organisations operate. One could interpret the focus by UK Online Centres and Consultant in a Box on SIM and SROI as a 'robustness compromise', in the sense that this family of approaches have a strong grounding in empirical-based methodologies.

Another big difference between UK Online Centres and Consultant in a Box on the one hand and Realising Ambition on the other is that the former two cases specifically set out to support grass roots organisations and their projects in developing their own, tailored IA approaches – their focus is on providing tools and support to help them do this. This is underlined by the commitment in UK Online Centres to an 'action research' approach to developing impacts assessment in an iterative way. In contrast, Realising Ambition has a common 'top down' impacts assessment framework that all funded projects have to follow. This framework has a set of core outcomes measures – improved engagement with school; improved behaviour; improved emotional well-being; improved relationships; stronger communities – although there is provision for contextual measures and the collection and analysis of qualitative data by individual projects.

Data collection

In all three cases, the implementation strategy and data collection approach reflects variations on a 'participatory' approach and an emphasis on the involvement of beneficiaries. This strategy is characterised on the one hand by the central role played by the 'management' actor in shaping the over-arching data collection design and implementation plan, and on the other by a subsequent supporting and hand-holding role intended to maximise the contribution played by staff and beneficiaries themselves in participating initiatives. As noted above, the main purpose of the 'Consultant in a Box' is to support grass roots organisations in developing impacts assessment approaches that best suit their profile and needs. The Guild do this by providing a set of tools – including diagnostic templates – to enable users of the toolbox to plan their impact assessments, and to select and use appropriate data collection tools to carry them out. In the case of UK Online Centres, specialist in the central offices of UK Online Centres are the ones who decide on the over-arching outcomes measures that need to be delivered, but actual data collection is carried out by local project centres, field workers and beneficiaries themselves.

Table 4: Summary of data collection approaches, UK Online Centres and Realising Ambition

	UK Online Centres	Realising Ambition
OUPUTS	1. Number of people involved in training 2. Number of people online 3. Number of online hits/activities	Over-arching output is number of young people reached
Type	1. Educational 2. Social 3. Social	Social
Means of Verification	1. Web-based 2. Statistical count 3. Statistical count	Views on-line system
Frequency	1. Quarterly 2. Quarterly 3. Quarterly	Continuous
OUTCOMES	1. Number of people with improved skills 2. Determined as programme develops	1.Improved engagement with school 2.Improved behaviour 3.Improved emotional well-being 4.Improved relationships 5.Stronger Communities
Type	1. Educational 2. Determined as programme develops	1. Educational 2. Social 3. Psychological 4. Social 5. Social
Means of Verification	1. Progression survey 2. Determined as programme develops (likely to include mix of quantitative and qualitative data)	All through 'Views' system supported by case studies; ethnographies; video; documentation analysis; RCTs
Frequency	1. Quarterly 2. Determined as programme develops	Continuous, supported by cross-sectional snapshots
IMPACTS	1.Employability 2.Participation 3.Well being 4.Better social behaviour 5.Safer neighbourhoods	1. Reduction in youth offending and increase in fulfilment of potential 2. Improved evidence on what works 3. Increased replication of successful interventions
Type	1. Economical 2. Social 3. Social 4. Social & economic 5. Social	1. Social-educational 2. Methodological/ organisational 3. Organisational
Means of Verification	1. User survey 2. User survey 3. User survey 4. Crime data 5. Crime data	1. Statistical analysis of participation 2. Analysis of replication journeys through Views system 3. Analysis of replication data

Frequency	1. Annual	1. Ex-post (5 years)
	2. Annual	2. Ex-post (5 years)
	3. Annual	3. Ex-post (5 years)
	4. Annual	
	5. Annual	

In the case of Realising Ambition, the on-line data collection and analysis system – Views – plays a core role. Views includes:

- *Contacts module*: data about individuals and groups including demographics, achievements and information about session duration, location, objectives, outcomes and financial data.

- *Evidence module:* enables users to upload photos, videos, audio and documents to evidence work and participants progress against project outcomes.

- *Reports module:* real time reporting tools including statistical data and qualitative evidence.

- *Administration tool and dashboard:* enables funders and partners to receive real time aggregated reports and insert outcome frameworks, questionnaires to project accounts.

Views will also collect financial / costing information (unit costs) for cost benefit analysis.

A second key feature of the data collection strategies deployed in the three cases is their commitment to a blend of common and contextual data collection tools and indicators. Table 4 summarises the data collection approaches in more detail for the UK Online Centres and Realising Ambition examples. We have not included 'Consultant in the Box' in the analysis in Table 4, since this is a toolkit that supports a range of grass roots organisations in developing IA, rather than an example of an IA approach embedded in a programme. It should also be noted that the data shown for UK Online Centres is based on a new programme of support currently being piloted which will cover 20 projects that are being selected and supported because they show potential for 'making a difference'. The envisaged outputs and outcomes for the projects supported in this new programme are different from those previously addressed.

As Table 4 shows, in both examples, output data are collected on number of beneficiaries reached in the participating projects. The means of verification used (data collection methods) is based on statistical analysis of participation/engagement and both cases use on-line tools for data collection. For outcomes, there is a strong focus on educational and social measures, with an additional focus in the case of Realising Ambition on 'soft outcomes' like emotional well-being. Both examples use a mix of quantitative and qualitative data collection tools. In the Realising Ambition case, however, there is a focus – unusual in IA in this field – on blending experimental methods with 'constructivist' methods. All projects with be equipped with core tools to gather data on outcomes of participants including; child, mental health, risk factors and whether projects have climbed the evidence ladder outcomes. Evaluation tools include: *Views*, 'evidence to success' surveys of child well-being and a strengths and difficulties questionnaire value added. In addition, four projects will have a randomised control trial evaluation. The qualitative element of the data collection approach combines personal ethnographies (using video); on-line Forums; case studies and documentation analysis.

A third key feature of the data collection strategies in the case examples is the use of quality control systems and tools. As Table 3 shows, UK Online Centres take a 'top-down' approach to quality control, combining field 'inspection visits' to local centres supported by the network with regular monitoring of data collected for IA. With Realising Ambition, quality is built into the programme 'ex-ante' through the initial funding selection process which included 'evaluation quality' as a selection criterion. Ongoing evaluation support from the programme is provided by the Delivery partners and aims to embed quality in data collection. This is done through: 10 days of face to face mentoring and coaching in the first year; diagnostic support and 'action planning'; support for undertaking RCTs. The 'standards of evidence' criteria were used to group the projects into three categories reflecting the level of evaluation support they will receive, i.e.: i) GOLD (4 projects): strong interventions that

score highly and are 'ready to go'. In these cases, they will be provided with an RCT and light touch specialist support. ii) SILVER: interventions that have a strong evidence base and experimental evaluations show positive effect. Even in these cases, light touch support will be given e.g. tightening of intervention logic. iii) BRONZE: interventions that do not have a robust evidence-base behind them. These are the ones that need intense support e.g. tightening their target population and logic models to become ready in the future for an experimental evaluation. Finally, the 'Views' system creates standardised data environment to support additional quality of data collection. In the case of 'Consultant in a Box', the toolbox has a 'guide to Getting Started in Social Impact Measurement'. This provides QA tools for grass roots organisations, with a focus on supporting data integrity and robustness of the data collected.

It should be noted that in both the case of UK Online Centres and Realising Ambition, actual data on outputs, outcomes and impacts has not yet been collected because both are currently in their first phases of implementation.

Data reduction and learning

In all three cases there is a strong focus on the 'developmental' dimension of IA, and all three cases represent innovative examples of bridging evaluation to 'learning from evidence'.   In terms of data analysis and data reduction, the UK Online Centres strategy is to embed a limited number of baseline indicators within the IA framework, in order to support cross-project comparability, and enable aggregation of data from project to programme level. This is then supplemented by a flexible and evolving IA framework that includes contextual tools and indicators to add 'granularity' to the baseline system. With Realising Ambition, baselines are built into the IA framework through a common logic model and common set of outcomes indicators, plus a standardised Cost Benefit Analysis tool. Data reduction is done by the external Delivery partner (DSRU). The 'Consultant in a Box' toolkit includes a section in on interpreting data, with an emphasis on assessing 'distance travelled'.

The emphasis on supporting 'evidence-based practice' through learning is particularly accentuated in the case of 'Realising Ambition'. As one of the delivery partners put it: "Monitoring support will help projects generate the right kind of evidence and make sure they don't miss anything valuable that can help them tell a story. The support is about making sure they organise their work around impact of their organisations". All the funded projects in the programme will be provided with generic 'learning support' provided by three of the delivery partners - Young Foundation staff embedded within Catch 22 and Rathbone regional and area offices. This includes: an initial mentoring and coaching programme; in the first year. Additional learning support is provided through: opportunities to network across the programme, regionally, and within specialist niche areas; access to an online community for peer support; review of the user journey pathway (or theory of change) for each organization; regular learning events, E network, launch event, thematic groups and sharing of contacts; Replication review group- who will meet twice a year for a two way exchange of learning and intelligence; Learning champions- Catch 22 will invite the organisations selected to participate in the programme to nominate a learning champion who will be a key point of contact with a brief to pass on learning to others in their organization. They will attend knowledge share events twice a year.

3.7.3.4 Lessons for MIREIA from the case studies

The key learning points from the case study analysis can be summarised as follows:

- All three cases stress avoiding a 'one-size fits all' approach based on a generic framework for IA. Even the most 'experimental' approach – Realising Ambition – blends RCTs with developmental methods.
- All three examples adopt a developmental and evolutionary approach to impacts assessment. In the UK Online Centres and Realising Ambition examples, IA design is explicitly

linked to a 'theory of change' whose main hypothesis is that interventions that can demonstrate, with robust evidence, that they are making a difference, are projects that will actually make a difference. In the UK Online Centres, the IA framework being developed is being shaped in an 'evolutionary' way – through adaptation and improvement of the conceptual and methodological basis through 'use' by practitioners.

- This developmental focus highlights another key learning point for MIREIA. All three examples – including, though to a lesser extent, Realising Ambition – recognise the diversity of the grass roots organisations involved in interventions, and adopt a blend of generic and contextual tools.

- This is linked to the key role played in all three examples of diagnostic and profiling tools in the initial design/scoping phase of IA development to enable selection and customisation of an appropriate configuration of methods, tools and indicators to the profile and needs of grass roots organisations, and the characteristics of the interventions in which they are involved.

- The examples reinforce the study conclusions that data collection and analysis needs to combine outputs, outcomes and, ideally, impacts. These should focus on: educational, social and economic measures (including employment), but there is also scope for measurement of 'soft outcomes' that can reflect 'distance travelled'.

- The examples reinforce the study conclusions that quality control is crucial in delivering effective impacts assessment. QA systems and tools need to be embedded throughout the IA lifecycle – in design, through to implementation, analysis and use of results.

The cases also provide specific examples of transferable practices for MIREIA. These include:

- The use of evaluation specialists to help in IA design and the subsequent use of evaluation mentors and champions to support implementation (Realising Ambition and Consultant in a Box).

- The use of diagnostic tools on criteria like motivation, readiness, capacity and desired impacts, to enable IA design to be contextualised to grass roots organisations (Realising Ambition and Consultant in a Box).

- The use of SIM, SROI and CBA as a core impacts assessment method (all three examples).

- The use of online data collection tools to collect beneficiary IA data (UK Online Centres and Realising Ambition).

- The use of learning systems – thematic groups; e-learning; on-line networks; learning champions – to support evidence based practice (UK Online Centres and Realising Ambition).

4. Conclusions and Recommendations

4.1 Key findings

From the literature review we can extract that there are some limitations of current approaches in search of an appropriate framework to gather robust evidence and assess the impacts of e-Inclusion intermediaries.

An important consideration emerging from literature is the extent to which empirical evidence has been generated to support the expectations that are associated with eInclusion actors. It is an unfortunate fact that a large proportion of available commentary on telecenters and other such eInclusion actors is based more on perceived potential than on demonstrated fact. While the general value of having meaningful access to ICTs is generally undisputed, the idea that particular methods of providing such access are superior to others is still up for debate, and the ability to make judgments is limited by the dearth of solid evidence based on a preponderance of research and observation. This is not to say there is no data to support claims on the impacts of eInclusion actors; rather that the data tends to be based on disparate, isolated, often small-scale, and highly contextualized studies, making it difficult to identify valid or reliable trends. In some cases the evidence is strong and backed by multiple similar findings; in others the evidence may be inconclusive, with different studies reporting contradictory findings. In other cases, there may simply be limited or no evidence.

It has been noted that although a lot of the research on public access ICTs sets out to measure impacts, in reality studies often end up with some measures of usage (which could be considered impacts depending on the research goal) and analysis of why expected impacts were not achieved (Sey & Fellows, 2009). Thus we continue to know more about the factors that seem to inhibit impact attainment, but not necessarily whether impacts would happen if all those factors were addressed (assuming that were even possible). The ideal scenario would distinguish between those impacts for which there appears to be some measure of reliable evidence (although we do not expressly judge the quality of individual studies) from those for which the conversation is still in the realm of potential. In short, the search for the most appropriate frameworks and measures of the impacts of e-Inclusion intermediaries continues.

One of the main findings from MMTSO is that it seems that there are no systematic literature reviews and established evidence base on how e-Inclusion actors evaluate what they do, and what their actual impacts are , . Although some impact assessment methods are currently being developed , the data gathered by the initiatives are generally not sufficiently robust to evaluate their outcomes and to validate their impact. There is no established 'evaluation culture' and the evaluation that is carried out reflects differing, sometimes oppositional, approaches and methods; different classifications systems, a scarcity of data, and scattered initiatives characterized by under-developed evaluation skills and capacities.

A related issue in the impacts assessment of ICTs for socio-economic inclusion is what to measure, and what indicators to use. There has been a tendency to conflate different types of effects as 'impacts', and in particular a lack of definition on differences between 'outputs' – the concrete products of an initiative; outcomes – the short-term effects associated with utilisation of these outputs, and 'impacts' – the longer-term effects derived from outcomes.

Therefore, as stated below, the results of the review in this domain should be read against the background of an increasing recognition that there is a need for more effective impact assessment approaches that incorporate the 'rigour' of 'experimental' approaches – like the use of randomised controlled trials – but at the same time reflect the context and needs of grass roots actors.

4.2 Towards an Impacts Assessment Framework for MIREIA

The more in-depth documentation and analysis of the three 'scenarios' carried out as part of the literature review reinforces the findings highlighted by the preparatory study's preceding analysis. In mapping and assessing the approaches used by grass roots organisations working with ICTs to support social inclusion we find little evidence of a landscape demarcated by discrete, bounded evaluation methods that can be neatly mapped on to typologies of actors and interventions. There are some generic impacts assessment 'frameworks' that are recognised as 'standard' and tend to be applied in uniform ways. An example is social return on investment (SROI) which has achieved a degree of 'universality' through consolidation and standardisation of theory, methodology and practice via institutional embedding through agencies like the SROI Network.

For the most part, however, impacts assessment in this field reflects the adoption and adaptation of different configurations of evaluation paradigm, methodology, methods, tools and practices. This is not so much an illustration of the dominance of a 'pragmatic' evaluation culture (Patton, 1982) but more a reflection of what we have defined as 'praxis' – the adoption, application and evolution of evaluation theory and methodology through practice and use, leading to the embedding of evaluation knowledge in 'communities of practice'. Figure 2 provides a schematic conceptual framework to illustrate how this might work

Figure 2: A 'Praxis' model of Impacts Assessment
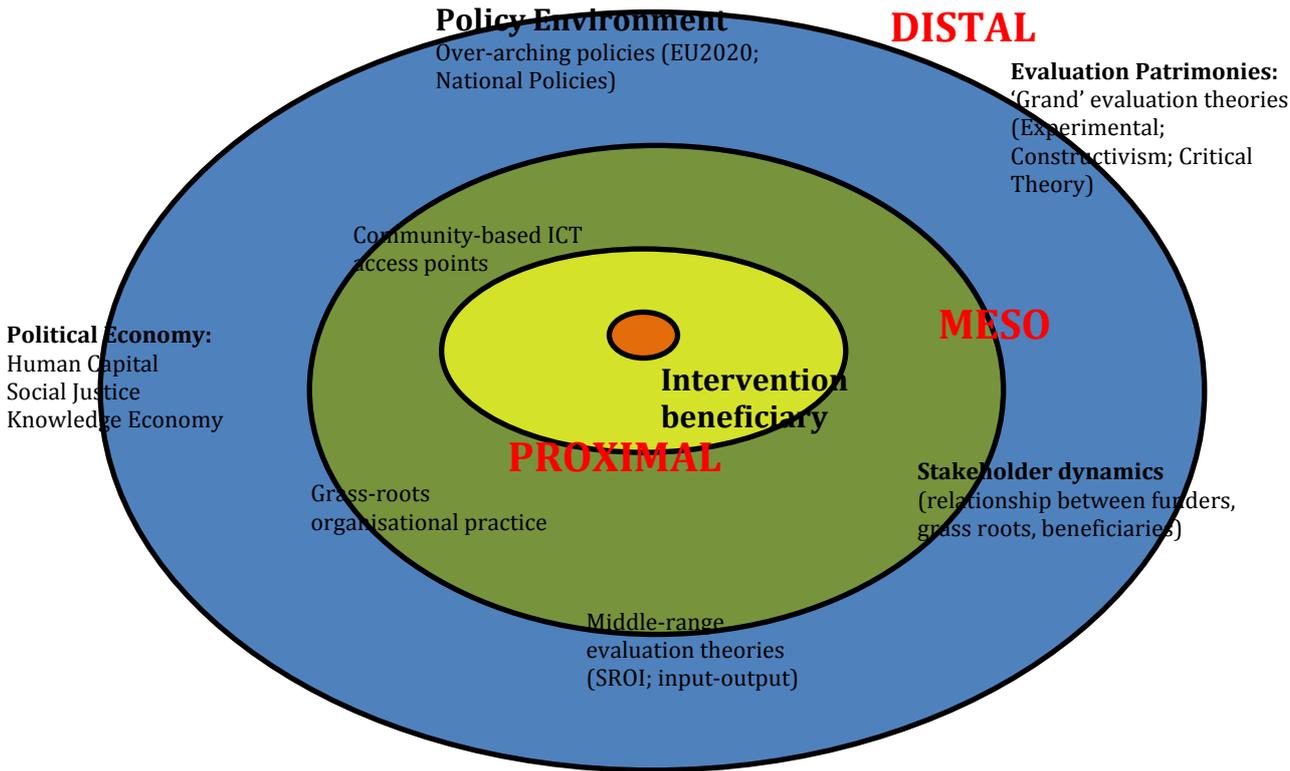
Figure 2 suggests that impacts evaluation 'praxis' will be shaped by the interaction of three dynamics. At the 'distal' (macro) level the dynamics include the prevailing 'evaluation patrimonies'. These 'grand theories' – like 'experimentalism', or 'constructivism' – have evolved from particular epistemological and ontological roots and are consolidated and embedded largely through the actions of actors who play a powerful role in the production and maintenance of knowledge discourses – like academic institutions; policy-makers and professional networks.

Impacts assessment at this distal level will also be shaped by macro-level factors like the prevailing political economy at the national and supra-national level, underpinned by prevailing policy agendas

and instruments. For example, in the UK, the recent policy emphasis on reducing public deficit is associated with increasing pressure on public programmes to demonstrate impacts on the basis of value for money. One example is the increasing use of 'Payment by Results' models for interventions in the criminal justice and 'welfare to work' sectors and the subsequent increasing emphasis on cost effectiveness methods in impacts assessment.

These distal factors in turn shape the adoption of particular impacts assessment methodologies at the 'meso' level, for example the use of RCTs, or the use of participatory evaluation. Their embeddedness within grass roots 'lifeworlds' and organisations will depend on a number of factors, including the ethos of grass roots organisations and networks and the perspectives and priorities of donors and sponsors; the nature of the community environment in which grass roots organisations operate, and the institutional features of these organisations and their networks, including service delivery models and methods.

The kinds of forces that will shape impacts assessment at the proximal (micro) level are also complex. They focus ultimately on the individual 'beneficiary' at the focal point of delivery of ICT-mediated interventions. The adoption of impacts assessment method and practice at this level will be shaped by factors like the socio-economic status and cultural background of target groups; their needs, and the level of engagement and collaboration of beneficiaries in interventions.

What we are beginning to detect in this landscape is the emergence of new forms of sensemaking, knowledge creation and knowledge transfer that are beginning to be applied in impacts assessment to, firstly, make a bridge between the distal, meso and proximal spaces and, secondly to make these forms of praxis more coherent, and to link them to broader agendas and objectives around 'learning'. This in turn reflects a movement towards bridging evidence with sustainability, scaling and replication. In the Vet4eI case example, the concept of 'transculturation' has been applied to support sensemaking and knowledge exchange across the diverse communities of practice involved in improving the digital competences of 'e-facilitators'. This serves a broader agenda of supporting an impacts assessment 'value chain' that aims to increase the digital competences of individuals who are subsequently trained by the e-facilitators; to further increase the social capital of their communities and, ultimately, to contribute to positive impacts at the national level , for example through opening up opportunities in the labour market.

This movement towards expanding the canvas of impacts assessment to enable 'bridging' the effects of ICT-based social inclusion interventions between the individual, community and societal levels can also be detected in the examples of Spanish Telecentres and the International Computer Driving Licence, both of which blend econometric modelling with cost-based methods to scale up the results of individual competence tests and plot their impact against macro-level measures like GDP.

These examples take the notion of 'praxis' out of its relatively narrow frame of 'adoption and adaptation through practice and use' to envisage all social actors engaged in grass-roots interventions as 'agents of the knowledge society and economy'. At the heart of this notion is an expectation that all stakeholders involved in these kinds of interventions – from funders, through managers, intermediaries and through to beneficiaries themselves – can support the 'vital transit' of cultural learning, via 'evidence-based practice' through engaging in evaluation activities that involve the 'co-production of knowledge' rather than simply acting as conduits for the supply of data.

In Vet4eI, this process of transculturation was facilitated through the use of 'national transculturation teams', composed of country tutors and their National referents, supported by eLearning agency staff. In the case of 'Realising Ambition', we find a similar process of transculturation, this time underpinned by a 'replication' agenda – the main objective of which is to spread a proven intervention into new geographical areas or to new and different audiences. With Realising Ambition, the transculturation process is implemented through the innovative use of ICTs, including social networking technologies that involve end users of services in contributing to the knowledge base by providing their own personalised narratives of the effects of the intervention on

their lives. What is striking about these examples is the blending of experimental and quasi-experimental evaluation paradigms, methods and tools with participatory methods that centralise the voice of the user in the measurement of impacts.

Four key conclusions stem from this analysis:

- There is no 'one size fits all' impacts assessment solution for eInclusion actors in this field. The results of the MMTSO documentation and analysis of methods do not support the proposition that a particular impacts assessment approach or method is 'best', or that a particular approach or method should be selected as the core of the MIREIA framework.
- Instead, the study results suggested that a more fruitful approach would be to consider impacts assessment in this field as a set of 'scenarios of praxis'. These scenarios reflect a particular conceptual and methodological focus and orientation, which then becomes embedded in the practices of eInclusion actors and subsequently adapts and develops through 'use'.
- However, further documentation and analysis of three selected 'scenarios of praxis' showed in turn that no one of these 'scenarios' provides clear evidence of greater relevance, effectiveness and usability than any of the others. Instead, each can be seen as reflecting different merits for different purposes.
- The overall conclusion of the study, therefore, is that the main purpose of the MIREIA framework and indicators should be to support impacts assessment as a 'process' – the process of creating the conditions to enable the embedding and implementation of concepts, methods, tools and practices, and their subsequent adaptation and evolution through use. In other words, the main purpose of the framework and tools is to support 'praxis'.

The following sub-sections aim at translating these conclusions into recommendations for future development of this framework and indicators. We present below a possible starting point for the development of such a framework. It covers four elements:

- First a set of 'Impacts Assessment Principles' that need to shape the design, development and implementation of the framework.
- Second, an over-arching evaluation paradigm for the framework.
- Third, a Structural Model aimed at identifying the 'building blocks' that need to be incorporated in the framework.
- Fourth, Operational Scenarios that could be explored to begin to put the framework into practice.

4.2.1   Impacts Assessment Principles

The study highlights eight 'principles' that, it is recommended, should be used to shape the design, development and implementation of the framework, as shown in Table 5. The Table describes each principle; each rationale and justification, and how it could be implemented.

Table 5: MIREIA Impacts Assessment Principles

Principle	Rationale	How implemented
Principle 1: Robustness. Support the diffusion of an evaluation culture within grass roots networks and organisations with an emphasis on robust evidence	The MMTSO study confirms the findings of previous studies – that there is little 'evaluation culture' in the field. Many grass roots organisations are small, and rely on volunteers. There is a culture of 'resistance' to evaluation – it is viewed as 'monitoring and surveillance'.	Provide diagnostic tools to enable organisations to identify IA purposes; motivation; readiness and capacity (using examples like Realising Ambition and Consultant in a Box). Identify and evaluation 'originator' and 'champion'. Provide mentoring and support programmes throughout IA life cycle
Principle 2: 'Good-enoughness'. Whilst encouraging robustness, support eInclusion actors in	MMTSO shows that RCTs may not be appropriate in all situations and for all actors in the field. This implies developing	Provide diagnostic tools (as above) to map needs against capacity. Use relevant models (e.g. SMART) to specify appropriate

'knowing their limitations' and developing IA strategies that are 'do-able'	guidelines and tools to enable grass roots organisations to customise IA design to make an adequate goodness of fit with their organisational profile; mission and values; service delivery model and target user needs, avoiding putting pressure on them to achieve impossible standards of perfection.	indicators. A potentially useful model is the 'zone of proximal development' approach,[87] drawn from pedagogy, which could support organisational learning at the 'own pace' of the grass roots organisation through the use, for example of collaborative knowledge networks; mentoring; evaluation 'champions' and benchmarking.
Principle 3: Balancing standardisation with contextualisation. 'Generic' evaluation frameworks aimed at supporting greater standardisation and generalizability of results need to be balanced with methods and tools that can reflect the 'granularity' of practices at grass roots level.	The strong message from MMTSO is that there is no 'one-size-fits-all' solution. The field is characterised by diversity and the framework and indicators. Evidence from the literature and from the case study examples shows that it is both possible and effective to blend 'robust' methods, like experimental and quasi-experimental methods, with participatory methods	The framework needs to provide a limited set of 'core' methods and indicators with contextual methods and indicators. These should focus on a limited set of measures: digital inclusion; social inclusion; employability; participation. A good example of the core-contextual balance from MMTSO is Realising Ambition. The 'Consultant in a Box' toolkit provides usable examples of balanced methods and indicators – including 'soft outcomes' indicators.
Principle 4: 'Working with the Grain'. Developing new forms of impacts assessment therefore requires methods, tools and organisational learning support to encourage the co-production of strategies and practices that reflect stakeholder consensus and 'alignment'. This co-collaboration also needs to reflect the characteristics of the 'life world' in which grass roots organisations engage with their beneficiaries.	The MMTSO evidence suggests that impacts assessment imposed 'top down' will meet with resistance from within organisations, and is likely to result in reduced effectiveness in terms of the quality of evaluation data derived from the implementation of an 'imposed method'. Research from the organisational behaviour field suggests that, in situations where organisational change is introduced – for example the imposition of experimental evaluation methods as a condition of funding – insiders within the organisation frequently adopt 'insurgency tactics' to sabotage the innovation. The 'Consultant in a Box' research highlighted the need to work with grassroots organisations to develop 'sensemaking'.	MIREIA needs to include tools and practices to support 'co-production of knowledge'. These should reflect the life-cycle of the impacts assessment – from 'ex-ante' design through to applying the IA results to organisation/intervention development.
Principle 5: Supporting Quality. The MIREIA framework should incorporate methods, tools and guidelines to support a 'quality culture' in the evaluation practice of grass roots organisations	The research shows that one of the most important factors affecting the credibility, utility and generalizability of impacts assessment evidence is the quality of the data collected, and that this is an area which, in this environment, is relatively under-developed. The three additional case studies are examples of new thinking in the IA field that try to bridge 'evidence' to 'quality' to 'impact' to 'transferability'.	QA principles, systems and tools need to be embedded throughout the IA life cycle within the framework. The framework should provide tools and examples of how to do it - e.g. external consultants for data analysis; using sub-samples of user surveys to check consistency of data; case studies; independent audits
Principle 6: Bridging Evaluation Levels. The framework should support grass roots organisations in creating an 'evidence chain' that enables the effects of interventions at grass roots level to be extrapolated to make a judgement about the contribution such localised actions have on macro level policy agendas and objectives	MMTSO shows that many eInclusion actors and interventions have problems in: developing logic models that show how their 'theory of change' links to objectives, activities and effects ii) distinguishing between outputs, outcomes and impacts iii) mapping and measuring 'distance travelled' iv) aggregating data from individual to organisational, community and national-EU measures of social inclusion	The framework needs to include methods and tools to enable grass roots organisations to; develop theory of change and logic models; identify relevant outputs, outcomes and impacts; calculate distance travelled using 'soft outcome' measures; carry out data aggregation.
Principle 7: Reflecting the Assessment Life-cycle. The	The study suggests that both 'generic' impacts assessment frameworks and impacts	Incorporate a section in the framework on 'life cycles'. Provide tools for IA at five

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[87] Vygotsky, L. (1978). Mind in Society: The Development of Higher Psychological Processes. Cambridge, MA: Harvard University Press.

framework should include methods, tools and practices to support 'holistic IA'.	assessment practices typically provide only 'partial coverage' of the key 'moments' in the evaluation life-cycle. The landscape of theory and practice is characterised by a strong emphasis on 'retrospective' impacts assessment, i.e. 'summative' methods and tools, with a corresponding under-representation of theory, method and practice in the 'ex-ante' phase (for example building outcomes measures into programme design) and in 'formative' (on-going) assessment.	assessment 'moments': outcomes identification and its integration in project 'logical frameworks'; the ongoing process of data collection; data synthesis and reduction; turning results into learning; applying the learning to scaling and replication
Principle 8: *Practicality and Usability.* make the framework and indicators simple, accessible and usable for grass roots practitioners	The study shows that a number of IA approaches – particularly experimental methods like RCs, but also some 'technical' methods like SROI – are seen as difficult to use. The study results highlight the importance of making impacts accessible to grass roots organisations. This applies not only to programme and project managers, and staff responsible for things like monitoring and quality control, but also intermediaries and end-users, who are increasingly being centralised as a key player in evaluation design and data collection.	Use 'diagnostic' tools (see above) to identify organisational motivation and IA capacity. Pay particular attention to 'language' and 'sign-posting' in developing the framework. Provide training for front-line staff. Use new technologies for on-line data collection that build on the experiences of staff and beneficiaries in social networking.

Table 6 provides more details of examples of how the principles could be implemented, drawing on examples of good practices from the MMTSO study.

Table 6: Implementing the principles: good practices from MMTSO

Principle	Good Practice Example
Principle 1: Robustness	'Realising Ambition': use of 'evaluation quality' as a criteria for funding selection, and indicator to assess the level of IA support required by a project/organisation. Provision of evaluation support through grading of projects on basis of their 'robustness': - Gold, Silver, Bronze.
Principle 2: 'Good-enoughness'	Consultant in a Box. The toolkit's main purpose is to support grass roots organisations in developing IA approaches and tools that suit their profile, needs and capacities. It uses an initial diagnostic tool to assess motivation, readiness, capacity and desired impacts, to enable IA design to be contextualised to grass roots organisations
Principle 3: Balancing standardisation with contextualisation	UK Online Centres 'Social Impact Tool'. This tool measures the impact of 'Community Hubs' on community social capital, and social impact of financial return (including measuring savings of increased employability set against costs of referral onto training programmes). The tool is both standardised for collection of baseline data on core indicators of outcomes, and also adaptable to the particular profiles of the hubs, and will allow collection of contextual data.
Principle 4: 'Working with the Grain'.	VET4e-I: the 'transculturation' methodology engages grass roots organisations and beneficiaries in collaborative events (e.g. workshops) to support sense-making and 'co-production' of knowledge. Realising Ambition has mentoring and coaching programme that supports all involved stakeholders in identifying and articulating their evaluation needs.
Principle 5: Supporting Quality	ECDL Foundation: defines Quality Assurance Standards, which all national operators must adhere to in the implementation and promotion of certification programmes. It carries out site visits and audits of the National Operators of ICDL programmes, and all accredited test centres within a country are regularly audited by the national operator. ECDL Foundation has established a Quality Management System based on the internationally recognised quality standard ISO 9001: 2008
Principle 6: Bridging Evaluation Levels	Spanish Telecentres: uses an input-output model to calculate cost-benefit analysis and social return on investment. This models the 'telecentres economy' in terms of a flow process. Input-output tables provide a snapshot of the 11 regional networks at two cross-

	sectional points in time, using a quasi-experimental approach with a pre-test/post-test design. They model the inter-relationships between economic entities in a region to provide an estimation of the increase in production associated ICT infrastructure provided through the telecentre networks – on a region. This is done by aggregating the estimated impacts for each network.
Principle 7: Reflecting the Assessment Life-cycle.	'Consultant in a Box' – provides and extensive rage of social impacts measurement tools (SROI, Social Accounting and Audit, Soft Outcomes Universal Learning (SOUL) and Practical Quality Assurance System for Small Organisations (PQASSO)) that enable organisations to measure progress on 'distance travelled', including use of 'soft outcome' measures.
Principle 8: Practicality and Usability.	The Realising Ambition 'Views System' reflects significant innovation in using smart technologies to make a bridge between IA and evidence-based learning. It also provides inputs to developing innovative ways to engage stakeholders in data collection, and in the 'co-production of evidence' by building on the increasing involvement and expertise of users in social networking technologies. It includes: *Contacts module*: data about individuals and group; *Evidence module:* enables users to upload photos, videos, audio and documents to evidence work and participants progress against project outcomes; *Reports module:* real time reporting tools including statistical data and qualitative evidence. *Administration tool and dashboard:* enables funders and partners to receive real time aggregated reports and insert outcome frameworks, questionnaires to project accounts

4.2.2   MIREIA evaluation paradigm

The results from the three additional case studies, provided in Section 3.7.3 above, highlight the emergence of new thinking in impacts assessment for grass roots organisations. This moves away from the 'top-down' approach traditionally used to support the collection and analysis of 'robust' evidence, derived, ideally, using experimental methods, to one that emphasises evaluation and impacts assessment as a 'learning process' that covers the whole intervention life-cycle: from designing interventions through to not only supporting organisational and intervention development by applying the results obtained, but moving further along the 'impacts journey' to consider the transferability and replication of practices that 'make a difference'.

This suggests the need for the MIREIA framework to adopt an evaluation approach that draws on action research and action learning. As argued in Section 4.2.1, the evidence from MMTSO suggests that the MIREIA 'impacts assessment principles' need to incorporate many of the underlying conceptual and methodological principles that are found in constructivist evaluation and in action research – and in recent years in approaches that link evaluation and action research to organisational development. In constructivist evaluation, a key preoccupation is understanding the process of the construction and reconstruction of realities through blending robust evaluation methods with stakeholder engagement to make sense of the evaluation process and results (Guba and Lincoln, 1989).[88] In participatory evaluation, action research is seen to offer a dual approach to both 'understanding' and also 'promoting change' through evidence-based assessment. As Reason and Bradbury (2001)[89] argue 'action research is about working towards practical outcomes and also about creating new forms of understanding, since action without reflection is blind, just as theory without action is meaningless'. Similarly, Kemmis and McTaggart (2008), [90] move towards reconceptualising research and evaluation as 'social practice' – a position in line with the definition of 'praxis' outlined in this Report. In turn, the extension of the thinking and practice behind participatory evaluation and action research based evaluation has influenced work in linking evaluation and impacts assessment to organisational development – particularly in relation to 'action learning' (Kemmis and McTaggart 2008).

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[88]   Guba E and Y S Lincoln (1987) Fourth Generation Evaluation, Sage, Beverly Hills.
[89]   Reason, P. and Bradbury. 2001. Handbook of Action Research. Sage.
[90]   Kemmis, S. and McTaggart, R. 2008. 'Participatory Action Research: Communicative Action and the Public Sphere', in Denzin, N.K; Lincoln, Y, S. (eds). 2008. Strategies of Qualitative Enquiry. London: Sage.

The Figure 3 provides a schematic model for operationalizing an over-arching evaluation paradigm based on 'action learning' for the MIREIA framework. As Figure 3 shows, the framework is presented as a dynamic 'Action Learning Cycle', covering the spectrum of the impacts assessment life cycle. Its starting point is a 'Presenting Problem' – how can grass roots organisations demonstrate they are making a difference? This first element of the framework is thus focused on methods and tools to define and articulate the 'problem'. The second phase in the cycle – and the second element of the framework- is a Situational Analysis. This focuses on supporting grass roots organisations and their stakeholders in positioning themselves within the IA 'landscape', with reference to factors like their mission; objectives; community lifeworld and user needs. Working with problem and situational definition leads to the development of a 'theory of change' – what change does the organisation and its activities lead to, and how does it get there? The subsequent Organisational Diagnostic phase, and framework element, focuses on the operational and logistical issues around this 'change path' and how it can be monitored and evaluated.

Figure 3: IA Action Learning Cycle Framework Model
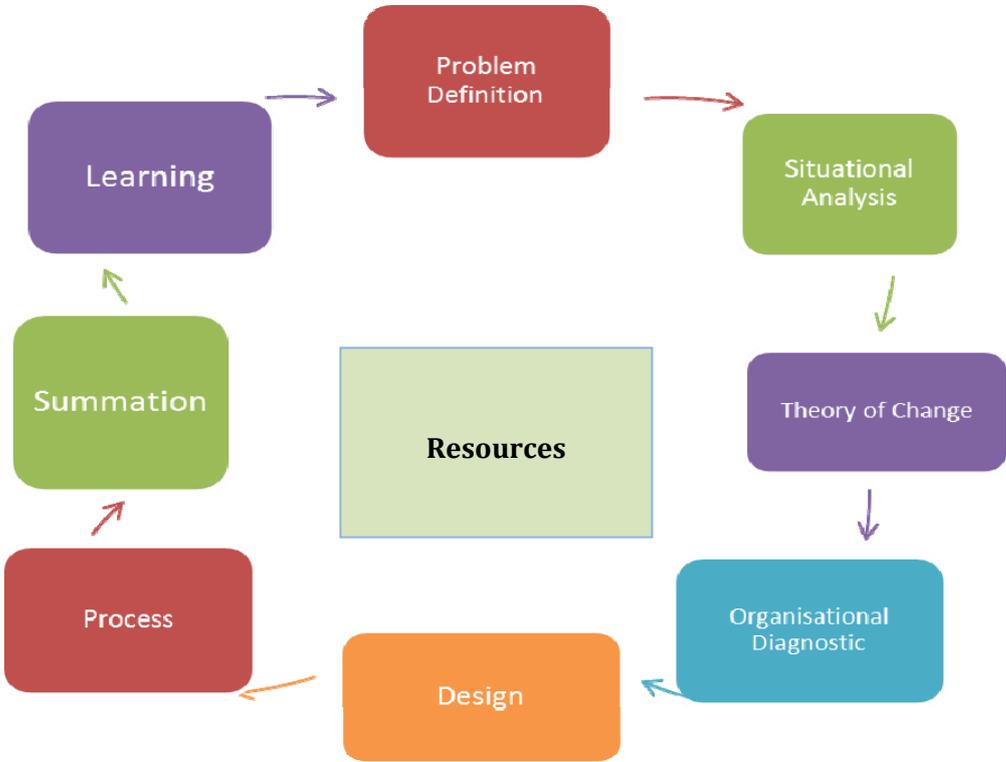
Subsequent phases in the action learning cycle focus on translating the theory of change into impacts assessment design; process evaluation and then developing strategies, methods and tools for ex-post impacts assessment. The final stage in the life cycle focuses on using the 'learning' from the impacts assessment to support evolutionary development: through problem-restatement; organisational development; bridging macro-level to micro-level results; sustainability; scaling up and replication. At the centre of the cycle is a Resource Repository which creates a learning space, tools and services to support the action learning 'journey'.

As Figure 3 shows, the action learning paradigm supports a number of the 'principles' developed in this Report:

- Robustness – supporting' learning through results'. The cycle starts with a systematic analysis of the 'presenting problem' and works systematically through stages of data collection, analysis and learning, continually interrogating the problem and working towards a desired outcome.

- Good-enoughness – recognising that all stakeholders – particularly those with least power – have a voice that needs to be taken into account when balancing the need for robustness against the participatory ethos of grass-roots organisations.
- Balancing standardisation with contextualisation – the cycle includes the development and implementation of a 'theory of change' which provides a common structure and indicators for assessment, whilst at the same time incorporating 'context', assumptions and contextual indicators to add granularity.
- Working with the Grain - the action learning cycle is based on constructivist and participatory evaluation concepts, methods and practices. These emphasise capturing the experiences of real beneficiaries in real life-worlds.
- Supporting Quality – quality is supported in the action learning cycle through the continuous process of monitoring, review and reflection.
- Bridging Evaluation Levels – the learning cycle bridges assessment of the effects on an intervention on individual experiences to measuring organisational, community and societal changes.
- Reflecting the Assessment Life-cycle – the action learning cycle reflects the whole 'effects journey', covering all the key moments of evaluation (ex-ante; formative' ex-post).
- Practicality and Usability -   the learning cycle paradigm is aimed at providing eInclusion actors with a clear vision of the 'holistic' nature of evaluation, and how they can learn from evaluation.

4.2.3   A structural model for the MIREIA framework

Figure 4 illustrates how the Learning Cycle could be operationalized within the MIREIA framework. The structure shown in Figure 4 reflects the key conclusion of the MMTSO study – discussed in Section 4.2 - that the main purpose of the MIREIA framework and indicators should be to support impacts assessment as a 'process' – the process of creating the conditions to enable the embedding and implementation of concepts, methods, tools and practices, and their subsequent adaptation and evolution through use. To support this process, the proposed framework consists of six modules:

- A 'Scoping Module' targeted at IA initiators, frontline staff and funders, and providing tools for organisational Analysis, intervention profiling, evaluation Needs Assessment, evaluation Capacity Audit, Evaluation Leadership.
- A 'Training Module' targeted at IA facilitators, frontline staff and users, and providing tools for evaluation facilitation, webinars, a training toolkit, and training events involving Action Learning.
- An 'IA Design Module', targeted at external consultants, frontline staff and users, and providing tools to support: identification of IA Purposes, Objectives, Audiences; guidelines and tools on appropriate Methodology and Methods; tools for assessing IA logistics and resource requirements.
- An 'Implementation Module' targeted at external experts, frontline staff, users and intervention partners, and providing tools on data collection strategies and practices and quality control.
- An 'Analysis Module' targeted at external consultants and management staff and providing tools for Coding; Quality Control; Statistical modelling; Cost analysis; Qualitative analysis.
- A 'Results Module', targeted at external consultants, funders, frontline staff, management staff and users and providing tools on Data Reduction; Statistical tests; Verification; Data Triangulation; Review methods and Data Synthesis.
- A 'Learning Module', targeted at Staff, Users, Partners, Funders, other intermediaries, researchers, policy-makers and providing tools to support Dissemination; Organisational change; Intervention development; Transferability of results; Replication.

Figure 4: MIRIEA framework structure

PROCESS

LEARNING
Dissemination
Organisational change
Intervention development
Transferability
Replication

Staff, Users, Partners, Funders, other intermediaries, researchers, policy

SCOPING
Organisational Analysis
Intervention Profiling
Evaluation Needs Assessment
Capacity Audit
Leader

Staff, External Experts, Users

Instigator, Staff, Funders.

METHODS

GENERIC
Log Frame
Distance Travelled
Longitudinal
Progression Survey
SROI
Secondary data

CONTEXTUAL
User Surveys
Case Studies
Interviews
Natural
Experiments
Ethnographies

TRAINING
Facilitator
Webinars
Toolkit
Action Learning

RESULTS
Data Reduction
Statistical tests
Verification
Triangulation
Review
Synthesis

Staff, External Experts

OUTPUTS
Training courses delivered
Participants completing
ICT access points open
Citizens engaged

Facilitator, Staff, Users

ANALYSIS
Coding
Quality Control
Statistical modelling
Cost analysis
Qualitative analysis

OUTCOMES
Increase in digital literacy
Increase in employability
Increase in social interaction
Increased use of e-gov
Increased participation

IA DESIGN
Purposes
Objective
Audience
Methodology
Methods
Logistics

Staff, Users, Experts, Partners

IMPACTS
Increase in GDP
Reduction in unemployment
Reduction in social exclusion
Increased social capital

Staff, Users, External expert

IMPLEMENTATION
Data collection
Quality Control

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At the heart of the framework are two core 'methods' resources, blending 'generic' IA methods with 'contextual' methods. The recommended generic methods are: Log Frames; Distance Travelled measurement; Longitudinal (Progression) Surveys; Social Impacts Measurement (SROI); Secondary data methods. The recommended Contextual methods are: User Surveys; Case Studies; Interviews; Natural Experiments; Ethnographies. These methods enable the collection and analysis of three key sets of data – core and contextual – and indicators: outputs; outcomes and impacts. The specification of these will depend on the results of the scoping and design activities. An illustration of the kind of data and indicators that could be covered is provided in Figure 3. Table 7 provides an illustrative indication of the kinds of content that could be provided within the framework modules, with some examples of existing resources.

Table 7: Examples of content MIREIA Framework Modules

Module	Resources	Description/Examples
Scoping	Visioning exercises Theory of change mapping tools Stakeholder Mapping Rapid Appraisal Needs Analysis tools Logical Frameworks	The visioning exercises are intended to clarify the organisational/intervention 'visit' and what changes it expects to deliver. These feed into the development of a 'theory of change' model which specifies the 'journey' – through objectives, activities, outputs, outcomes and impacts that needs to be planned. Raid Appraisal is a quick way of identifying the 'problem situation' the intervention needs to address and the changes it needs to make. This can be supplemented by evaluation needs analysis of stakeholders, partners and beneficiaries. The final step in the scoping phase is the integration of the data collected from using these tools into a 'logframe' that specifies outputs, outcomes and impacts and how they can be assessed. Example: Kellogg Foundation logic model development guide.
Training	IA competence audit Action Learning Sets	The competence audit assesses 'evaluation readiness' and skills gaps that need to be addressed. Examples: 'Realising Ambition' evaluation quality tool. 'Consultant in a Box' diagnostic tools.
Design Strategies and Tools	Evaluation concepts and key methodologies Evaluation design principles and practices Guidelines on pitfalls and how to avoid them Outcomes definition and SMART indicators	Provides building blocks for IA design. Supplemented by good practice examples; guidelines on pitfalls and how to avoid them and practical design exercises. Examples: the European Commission 'MEANS' Collection; 'Consultant in a Box'.
Implementation	Process evaluation principles, guidelines and tools Summative evaluation principles, guidelines and tools Monitoring methods, tools and indicators Quality Control methods	This is the core module of the framework, combining the 'generic' and 'contextual' methods shown in Figure 4. It would contain summaries and basic tools covering the key approaches and methods used in the field (SIM and SROI; input-output; participatory;) Using on-line data collection approaches This needs to be supplemented with guidelines and practical exercises on adapting and customising methods; on implementation strategies and practical problems. Examples: UK Charities Evaluation Service 'Guide to Monitoring and Evaluation'; Realising Ambition: 'Views' system
Analysis	Data reduction tools and practices Statistical analysis tools Qualitative analysis tools	This module is mainly aimed at grass roots management staff and external consultants, and would need to provide tools and practices in quantitative and qualitative data analysis Example: World Bank, Social Impact Assessment Tools and Methods.
Learning	Sense-making strategies Feeding results into better practice Scaling up Replication strategies	This module needs to cater for different audiences. At the broadest level, it would need to support 'sensemaking' and shared understanding between stakeholders on how to apply IA results to improving organisational development, and stakeholder development. This could be done through providing tools and guidelines for Action Learning Sets. Example: World Bank, Social Impact Assessment Tools and Methods. At the management level, tools and guidelines could cover how to develop a learning organisation, and how to support replication of 'what works'. Example: UK 'BIG' programme - Realising Ambition.

4.2.4　Operational Scenarios

A major challenge for the framework will be to develop strategies and tools to support the embedding of relevant and effective practice within grass roots network – in other words to support 'impacts assessment praxis'. The Action Learning model shown in Figure 3 above envisages a 'Resource Repository' that will house the content modules provided through the MIREIA framework and indicators system. Promoting access to resources that are relevant, useful, usable, practical and timely for users will be central to the work of the MIREIA initiative. In line with the 'dynamic' nature of the action learning model outlined above, it follows that this Resource Repository should be part of a 'learning environment' that is developed, reviewed and updated by the communities of practice operating in the field, and which is supported by 'learning activities' rather than a static collection of mainly text-based resources. This implies that MIREIA needs to put into place operational mechanisms to support the following objectives:

- assembling a resource base of theory, methods, tools and practice in the field of impacts assessment for eInclusion, one that is accessible to the spectrum of stakeholders in the field, and which supports the 'robustness' and 'usability and practicality' principles outlined above;
- creating a space to enable ongoing critical review of these resources, and the expansion of the knowledge base through collaboration and 'co-working' between stakeholders, supporting the principle of 'working with the grain';
- ensuring that this evolving knowledge base provides resources that enable grass roots organisations to aspire towards producing rigorous evidence on what works, across the life-cycle of the intervention, as well as enabling them to demonstrate how their work affects real people in real ways, supporting the principles of 'good enoughness', 'life cycle' and 'balancing standardisation with contextualisation';
- applying quality mechanisms to reduce the current variability and unevenness of the evidence base in the field, for example by enabling access to standards bodies in the field, such as the SROI Network, thus supporting the 'quality' principle outlined above;
- promoting linkages between the spectrum of communities of practice working in the field, to support knowledge transfer; data aggregation and policy relevance, thereby supporting the 'bridging evaluation levels' principle outlined above.

This suggests that the MIREIA learning environment would need to include the following elements:

- Traditional 'text-based' resources (for example Guidelines; practice manuals; case study examples; journal articles; generic evaluation resources, e.g. the EC 'MEANS Collection);
- The use of Web 2.0/Web 3.0 tools to support new collaborative knowledge networks involving communities of practice (building on the results of EU programmes like the Lifelong Learning Programme; the 'e-practice portal);
- Developing a peer review and benchmarking system (for example building on the practices of the EU 'Open Method of Co-ordination');
- Network consolidation, strengthening and integration systems and activities. This could entail: supporting knowledge transfer between grass roots networks and IA practitioners (for example the SROI Network; the EU Evaluation Society);
- Developing methods and mechanisms to support the development of IA capacity in grass roots organisations and networks (for example through mentoring; IA 'champions'; network 'twinning' and professional development training – building on the good practices identified in the case studies outlined in the MMTSO study, for example ICDL);
- Developing and disseminating tools and practices using innovative ICTs for data capture and learning (for example the 'Views' system presented above in the 'Realising Ambition' case study).

Annex I. Policy frameworks for e-Inclusion

**CONTENTS**

1. Riga Declaration

The indicators are grouped under nine themes:

1: Developments in broadband,
2: Advanced services,
3: Security,
4: Impact in relation to the overall Lisbon objectives of growth and employment,
5: Investment in ICT research,
6: Adoption of ICT by businesses,
7: Impact of adoption of ICT by Business,
8: Inclusion,
9: Public services.

2. i2010 benchmarking framework
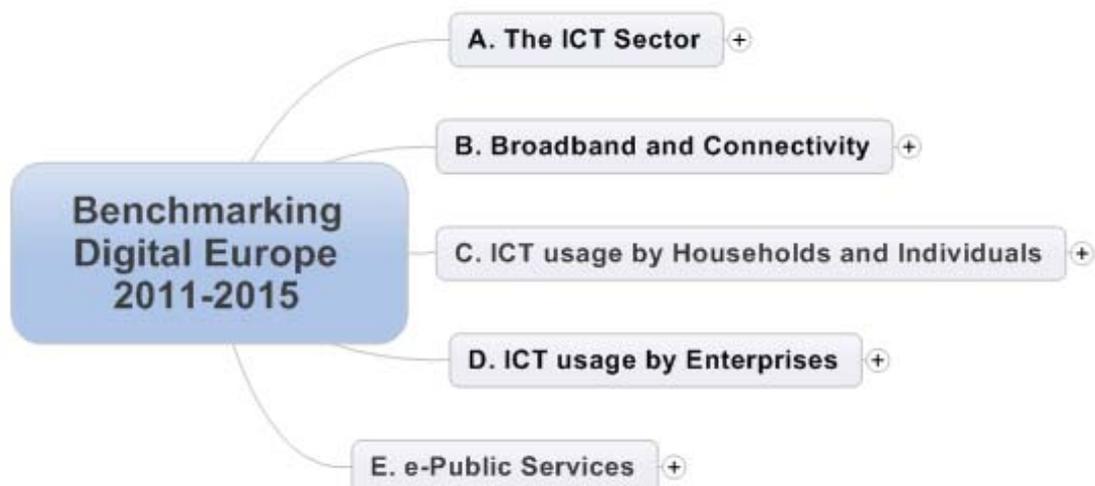
3. Europe 2020 , a strategy for jobs and smart, sustainable and inclusive growth

It is Based on five EU headline targets which are measured by several headline indicators

Headline targets	Indicators
75 % of the population aged 20-64 should be employed	Employment rate by gender, age group 20-64
3% of the EU's GDP should be invested in R&D	Gross domestic expenditure on R&D (GERD)
Reduction of the greenhouse gas emissions by 20% compared to 1990 Increase in the share of renewable energy sources in final energy consumption to 20% 20% increase in energy efficiency	Greenhouse gas emissions, base year 1990
	Share of renewables in gross final energy consumption
	Energy intensity of the economy (proxy indicator for Energy savings, which is under development)
The share of early school leavers should be under 10% and at least 40% of 30-34 years old should have completed a tertiary or equivalent education	Early leavers from education and training by gender
	Tertiary educational attainment by gender, age group 30-34
Reduction of poverty by aiming to lift at least 20 million people out of the risk of poverty or social exclusion	People at risk of poverty or social exclusion (union of the three sub-indicators below)
	People living in households with very low work intensity
	People at-risk-of-poverty after social transfers
	Severely materially deprived people

4. Digital Agenda Indicators
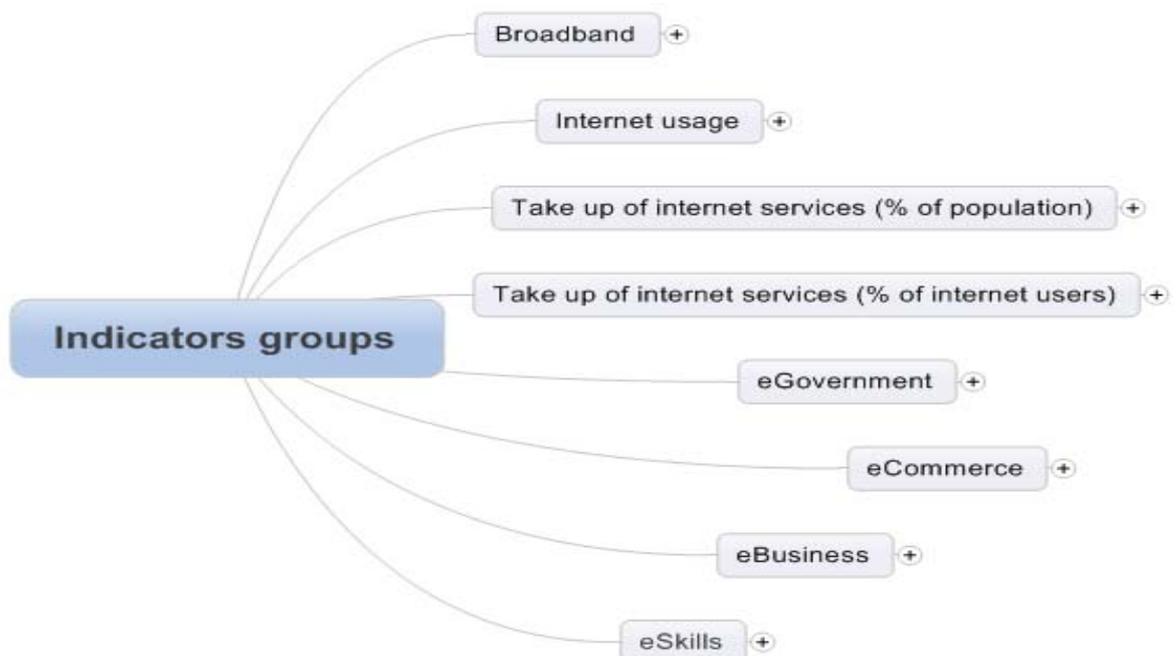
5. European Strategy for Social Protection and Social Inclusion

This are commonly agreed indicators to monitor progress towards commonly agreed objectives is an essential component of the EU's Open Method of Coordination on social inclusion and social protection. It contains:

- An overall list of 14 headline indicators, the "overarching list".

- Complemented by specific indicators relating to three main areas:

    - Poverty and social exclusion
    - Pension
    - Health and Long-Term Care

	Indicator
1a	EU: At-risk-of-poverty rate + Illustrative threshold value
1b	EU: Relative median poverty risk gap
2	EU: S80/S20 Ratio of total income received by the 20% of the country's population with the highest income (top quintile) to that received by the 20% of the country's population with the lowest income (lowest quintile).
3	NAT: Healthy life expectancy
4	EU: Early school leavers
5	EU: People living in jobless households
6	NAT: Projected Total Public Social expenditures
7a	EU: Median relative income of elderly people
7b	EU: Aggregate replacement ratio
8	NAT: Self reported unmet need for medical care NAT: Care utilisation
9	EU: At-risk-of-poverty rate anchored at a fixed moment in time (2004)
10	EU: Employment rate of older workers
11	EU: In-work poverty risk
12	EU: Activity rate
13	NAT: Regional disparities – coefficient of variation of employment rates
14	NAT: total health expenditure per capita

Context information	
1	GDP growth
2a	Employment rate, by sex
2b	Unemployment rate, by sex, and key age groups
2c	Long term unemployment rate, by sex and key age groups
3	Life expectancy at birth and at 65
4	Old age dependency ratio, current and projected

5	Distribution of population by household types, including collective households
6	Public debt, current and projected, % of GDP
7	Social protection expenditure, current, by function, gross and net (ESPROSS)
8	Jobless households by main household types
9	Making work pay indicators (unemployment trap, inactivity trap (esp. second earner case), low-wage trap.
10	Net income of social assistance recipients as a % of the at-risk of poverty threshold for 3 jobless household types
11	At-risk of poverty rate before social transfers (other than pensions), 0-17, 18-64, 65+
12	NAT: change in projected theoretical replacement ratio for base case 2004-2050 accompanied with information on type of pension scheme [DB (defined benefit), DC (defined contribution), NDC (notional defined contribution)

6. European Strategy for Employment

In line with the Europe 2020 strategy, the European Employment Strategy seeks to create more and better jobs throughout the EU. To reach these objectives, the EES encourages measures to meet three headline targets by 2020:

- 75% of people aged 20-64 in work
- school drop-out rates below 10%, and at least 40% of 30-34–year-olds completing third level education
- at least 20 million fewer people in or at risk of poverty and social exclusion.

The actions outlined in the flagship initiative "An Agenda for new skills and jobs" are essential to meet these targets.

The following tables contains policy areas and the correspondence with integrated guidelines and, as an example, a set of indicators associated to a the first policy area. For each one of the policy areas there are indicators proposed[91].

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[91] For more information consult the document: *Foundations and structures for a Joint Assessment Framework (JAF), including an Employment Performance Monitor (EPM) to monitor the Employment Guidelines under Europe 2020 by The Employment Committee (EMCO) and the Social Protection Committee (SPC)* at:
http://register.consilium.europa.eu/pdf/en/10/st16/st16984-ad01.en10.pdf

	Policy areas	Corresponds to integrated guideline nr.					
		1	2	7	8	9	10
1	Increase labour market participation			X			
2	Enhancing labour market functioning, combating segmentation *Including Flexicurity component "Flexible and reliable contractual arrangements"*			X			X
3	Active labour market policies *Corresponding to Flexicurity component "Effectvie active labour market policies"*			X			X
4	Adequate and rmployment oriented social security systems *Including Flexicurity component "Modern social security systems"*	X		X			X
5	Work-life balance *Including Flexicurity (sub)component "Reconciliation of work and private life"*			X			X
6	Exploiting job creation possibilities			X			
7	Gender equality			X	X		X
8	Improving skills supply and productivity, lifelong learning *Including Flexicurity component "Comprehensive lifelong learning systems"*			X	X	X	X
9	Improving education and training systems			X	X	X	X
10	Wage setting mechanisms and labour cost developments	X	X	X			
11	Preventing poverty through inclusive labour markets, adequate and sustainable social protection and access to high quality, affordable and sustainable services	X		X			X
11a	Breaking the intergenerational transmission of poverty – tackling child poverty			X		X	X
11b	Active inclusion – tackling poverty in working age			X	X		X
11c	Tackling poverty in old age						X
12	Social inclusion of groups at special risk and anti-discrimination			X			X

Table A2: Initial list of suggested indicators per policy area
[To be revised in light of further technical discussions]

Policy (sub-) area	Indicator	Current use of indicator[11] or indicator to be developed[12]	Main or context indicator and information
1. Increase labour market participation			
Increase overall employment	Employment rate of population aged 20-64 (Overall, women, men) 75% of women and men aged 20 – 64 should be employed	EMCO 17.M1	Target
	Annual percentage change in employed population	EMCO 17.M2	Main
Gender equality	Employment gender gap	EMCO 18.A1	Main
Older workers/active ageing	Employment rate of population aged 55 – 64 (Overall, women, men)	EMCO 17.M1	Main
	Average duration of working life (Overall, women, men)	EMCO new	Main
Youth	NEET ratio for population aged 15 – 24 (Overall, women, men)	EMCO new	Main
	Unemployment ratio for population aged 15 - 24 (Overall, women, men)	18.M1	Main
	Unemployment rate for population aged 15 - 24 (Overall, women,	17.M3	Main

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[11]   See : http://ec.europa.eu/social/main.jsp?catId=477&langId=en for EMCOand http://ec.europa.eu/social/BlobServlet?docId=3882&langId=en for SPC indicators
[12]   Indicators to be developed will notably take account of the conclusions of the EPSCO council of June 2010 (Council document 10560/10)

Annex II. List of Workshops participants in alphabetical order

First *Experts' Workshop on Measuring the impact of e-Inclusion actors*, Seville, 3 -4 May 2012
Invited experts
- **Ian Clifford**, Telecentre Europe, UK
- **Cristiano Codagnone**, Tech4i2 /University of Milan, Spain
- **Peter Day,** University of Brighton/ Community Informatics Research Network (CIRN), UK
- **Juan Francisco Delgado,** Consorcio F. de los Ríos, Spain
- **Kath Edgar,** Substance Coop., UK
- **Paul Foley,** Tech4i2, UK
- **Anne Green,** Warwick Institute for Employment Research, Warwick University, UK
- **Ellen Helsper,** Dept. of Media and Communications, London School of Economics, UK
- **Mara Jakobsone,** LIKTA/ Telecentres Europe, Latvia
- **Maciej Kochanowicz,** Information Society Development Foundation, (FRSI), Poland
- **Lee Komito,** University College Dublin, Ireland
- **Sonia Liff,** Appleby Ltd, Copenhagen, Denmark
- **Alfonso Molina,** Fondazione Mondo Digitale, University of Edinburgh, Rome, Italy
- **Jeremy Paley,** Gates Foundation, USA
- **Ismael Peña,** Universitat Internacional de Catalunya UIC-IN3, Barcelona, Spain
- **Eva Piñar,** Junta de Andalucía, Spain
- **Paco Prieto,** CTIC, Gijón, Spain
- **Renata Sadunisvili,** National Lithuanian Library, Lithuania
- **Nicky Stevenson,** The Guild, UK
- **Victoria Stirling,** Online Centres Foundation, London, UK
- **Ronald Van Bekkum,** UWV (Dutch PES), The Netherlands
- **Dinesh Venkateswaran,** TechSoup, London, UK

Study Contractors
- **Joe Cullen,** Arcola Research, UK
- **Veronique Maes,** Arcola Research, UK
- **Maria Garrido**, TASCHA,Univ. of Washington, USA
- **Araba Sey,** TASCHA,Univ. of Washington, USA

European Commission, JRC-IPTS
- **Clara Centeno,** JRC, IPTS, Information Society Unit, Spain
- **Alexandra Haché,** JRC, IPTS, Information Society Unit, Spain
- **Francisco Lupianez,** JRC, IPTS, Information Society Unit, Spain
- **Gianluca Misuraca,** JRC, IPTS, Information Society Unit, Spain
- **Yves Punie,** JRC, IPTS, Information Society Unit, Spain
- **Gabriel Rissola,** JRC, IPTS, Information Society Unit, Spain
- **James Stewart,** JRC, IPTS, Information Society Unit, Spain
- **Cristina Torrecillas,** JRC, IPTS, Information Society Unit, Spain

Second *Experts' Workshop on Measuring the impact of e-Inclusion actors*, Seville, 06 September 2012

Invited experts
- **Lucia Aguilar,** Junta de Andalucia, Guadalinfo, Spain
- **Nick Batey,** UK Government, Wales, UK
- **Agostina Betta,** Regione Emilia Romagna, Bologna, Italy
- **John Clayton,** University of Sunderland, UK
- **Graham Colclough,** Cap Gemini, London, UK
- **Mark Deakin,** Napier University, Edinburgh, UK
- **Juan Francisco Delgado,** Consorcio F. de los Ríos, Spain
- **Kath Edgar,** Substance Coop., UK
- **Ricard Faura,** Generalitat de Catalunya, Barcelona, Spain
- **Paul Foley**, Tech4i2 Ltd., UK
- **Anne Green,** Warwick University, UK
- **Manus Hanratty,** Fast Track to IT (FIT), Ireland
- **Mara Jakobsone,** LIKTA/ Telecentres Europe, Latvia
- **Stefano Kluzer**, Independent Expert, Italy
- **Angel Ortiz**, Junta de Andalucia, Spain
- **Ismael Peña**, Universitat Oberta de Catalunya UIC-IN3, Spain
- **Miguel Raimilla,** Telecentre.org
- **Gabriel Rissola,** Telecentre Europe
- **Renata Sadunisvili**, National Lithuanian Library, Lithuania
- **Alberto Savoldelli**, Independent Expert, Italy
- **Nicky Stevenson**, The Guild, UK
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