ICT4I Policy monitoring framework

The ICT4I Policy Monitoring Framework has been developed in an attempt to address a concern emerging from the ICT4I project activities – the need to monitor support provided to learners, teachers and schools in order to ensure a coherent system of ICT4I policy and provision in the short and long term.

The framework presented here should be considered as a tool for supporting the different phases of policy delivery: auditing the current situation; ensuring essential pre-requisites for policy implementation are in place; implementing the strategic actions linked to the policy objectives; monitoring all policy implementation activities; and disseminating information on the outcomes of the policy implementation. The phases can be seen as cyclical, as monitoring and dissemination actions necessarily lead to further auditing actions and so forth.

The ICT4I Policy Monitoring Framework provides an outline structure for countries to discuss, adapt and develop for their own data collection for policy auditing and benchmarking, monitoring and evaluation purposes. The framework has the potential to be further developed within individual country contexts in order to:

* ensure that all learners’ rights in relation to ICT access are met; and
* examine the effectiveness of systems of provision for ICT4I.

The framework considers all aspects of infrastructures for ICT4I. It presents a possible response to the UNCRPD key proposition calling for data collection and monitoring relating to the use of ICT as a tool for promoting equity, access to appropriate ICT as an entitlement, the training of educational staff and the promotion of ICT research and development. These four issues are continuous themes underpinning the overall content of the Policy Monitoring Framework.

The framework considers the issues highlighted in the project as developments having most impact upon ICT4I policy and practice (please refer to section 3.2 of this report).

The framework covers different levels of the education system that impact on the educational experiences of learners with disabilities and special educational needs – individual learner, teacher/classroom, school, regional and national levels. Although the framework has been prepared as a generic tool covering all levels of the ICT4I system, it can potentially also be used for policy monitoring work at one or more specific levels.

This multi-level framework is in line with current and previous work on effective data collection for inclusive education, (Organisation for Economic Co-operation and Development, 2007; Ebersold, 2011; European Agency, 2011b; World Health Organization/World Bank, 2011; UNESCO/G3ict, in press).

The ICT4I Policy Monitoring Framework is based upon three premises:

*(i) The need to involve all relevant stakeholders in policy monitoring*

* Key stakeholders and partners in data collection processes (organisations, researchers, etc.) must be identified in order for participatory data collection procedures involving learners, their families and representatives to be identified and used.
* The relevant stakeholders must be engaged in agreeing on an action plan with milestones for policy monitoring and evaluation. This will include agreeing the focus of quantitative, input-focussed data collection (e.g. application of accessibility standards, procurement figures, etc.) and qualitative data collection, exploring process and outcome issues.

*(ii) The need to collect different types of data and information for policy monitoring purposes*

* Data that is limited to simple quantitative measures does not inform policy evaluation on its own. There is a need to collect quantitative and qualitative data informing debates regarding the outcomes and/or benefits of accessible ICT provision. Qualitative as well as quantitative data should be available on inputs, as well as processes and outcomes relating to the use of ICT in inclusive education.
* The collection of structured information on innovative examples of impact in using ICT in inclusive education can act as a useful inspiration for educational organisations and professionals.

*(iii) The need to cross-reference different sources of data collection methods and findings*

* A framework of data collection procedures that examines learners’ rights, as well as system effectiveness issues, must be developed in order to monitor the impact of ICT4I for learners, teachers and schools.
* For this to be achieved, there is a need to cross-reference specific data collection relating to ICT4I to other areas of national and/or international data collection procedures in order to avoid overlap of efforts and ensure compliance with data collection requirements. A starting point is the identification of existing data, as well as gaps and areas of missing information.
* There is great potential for the use of ICT as a tool for collecting different types of data and information for policy monitoring purposes.

The ICT4I Policy Monitoring Framework is intended to provide a practical tool for considering longer-term information collection that can be integrated into existing digital policies and fits into wider ICT policy initiatives.

The framework is based on a structure of inter-related and mutually supportive policy goals, objectives and actions:

* *ICT4I policy goals* – that describe the broad intentions of an ICT4I policy.
* *Policy objectives to be met* – that highlight the specific targets that must be achieved in line with the policy goals. The overall effectiveness of the implementation of any ICT4I policy will be judged against the achievement of the stated policy objectives.
* *Policy actions to be monitored* – that detail the specific actions that will act as levers and potentially have the most impact in terms of promoting desired changes and developments.

In the grid below, the identified policy actions for monitoring have been phrased in a way that supports simple monitoring, using metrics that indicate the degree of policy action completion – for example: Full/Partial/None.

By using a simple metric, the extent to which each policy action has been completed can be assessed and recorded. However, the wording and example metric described here are presented as examples for discussion and it is recognised that countries may have existing metrics that can be applied to the suggested policy actions.

The framework document comprises a simple grid that can be adapted to different national or regional contexts. To support country discussions and policy monitoring development work, the text in the grid is non-copyright material and is intended for policy-makers and practitioners to develop and modify as needed to meet their specific country requirements.

On the Agency website, editable electronic versions of the ICT4I Policy Monitoring Framework in all Agency member country languages are available to download and re-purpose, as long as a reference to the original source is given: http://www.european-agency.org/agency-projects/ict4i

**ICT4I POLICY MONITORING FRAMEWORK**

| **1. ICT4I policy goal for the learner level: all learners are able to effectively use ICT in their learning in inclusive settings** |
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| **Policy objectives to be met** | ***Policy actions to be monitored in terms of the extent to which*** ***…*** |
| 1.1 ICT is used as a tool for supporting the participation of learners with disabilities and special educational needs in inclusive settings | 1.1a There is widespread awareness raising on the importance of ICT as a tool for supporting the participation of learners with disabilities and special educational needs in inclusive settings 1.1b Local situation analyses on the availability of appropriate ICT and associated resources have been conducted1.1c The potential impact of the barriers to the use of ICT (learning needs, gender, social or geographic isolation and/or socio-economic factors) in determining ICT resource allocation in inclusive education has been evaluated by all relevant stakeholders1.1d Minimum standards detailing the availability of and access to ICT tools, services and content have been identified and agreed upon by all stakeholders |
| 1.2 ICT is used to support personalised learning approaches for learners with disabilities and special educational needs in inclusive settings | 1.2a Structured ICT ‘needs assessment’ procedures have been developed that identify individual learners’ functional needs for particular ICT tools 1.2b All learners have opportunities to self-assess and manage their personal ICT access and assistive technology preferences1.2c The ICT needs of learners who require additional support are identified in collaboration with parents and/or guardians who can help learners to communicate their preferences1.2d Learners with disabilities and special educational needs are supported in developmental ways so that they are enabled, capable, and then confident users of ICT1.2e The use of ICT is written into any individual education plan or similar planning document for learners who have them |
| 1.3 Learners’ experience of general and specific ICT availability at school, home and upon transition to other educational sectors is seamless, with no gaps or differing levels of provision | 1.3a ICT to support an individual’s learning is available within schools and is available/transferable to different home, social, educational and lifelong learning contexts1.3b ICT transition plans to support the availability of necessary ICT across moves between educational settings have been developed and implemented1.3c Mechanisms for cross-sector co-operation and working to ensure equitable access to ICT across home, social and educational contexts have been developed and implemented |

| **2. ICT4I policy goal for the teacher/classroom level: all teachers are able to effectively use ICT to support learning in inclusive settings** |
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| **Policy objectives to be met**  | ***Policy actions to be monitored in terms of the extent to which*** ***…*** |
| 2.1 Teachers’ attitudinal barriers to the use of technology and/or inclusive education are acknowledged and addressed via appropriate training | 2.1a All teachers and the professionals supporting them are involved in identifying priorities for ICT4I capacity building, including identifying professional standards, training priorities and effective support mechanisms 2.1b A comprehensive programme of ICT4I training for all teachers has been developed that covers initial education as well as continuing professional development programmes2.1c Within any training programme, there are coherent links between specific training in the use of ICT and AT and general training in inclusive education2.1d Tools for monitoring the effectiveness of ICT4I training have been developed and implemented |
| 2.2 Teachers are effectively supported in their general use of ICT to support learning, as well as the specific use of AT  | 2.2a Specific training is available for all teachers in using learner-centred teaching methods that are supported by ICT2.2b Specific training is available for all teachers in maximising the use of accessibility features in mainstream ICT tools2.2c Appropriate curricular materials are available to support teachers in their use of ICT to support learning2.2d Appropriate technology-based tools are available to support teachers in their use of assessment for learning approaches |
| 2.3 Teachers are effectively supported in their use of ICT as a tool for personalised learning in inclusive settings  | 2.3a Specific training is available for all teachers in identifying learners’ ICT preferences and then supporting learners’ to self-assess and self-accommodate their ICT access preferences2.3b Specific training is available for all teachers in taking personalised learning approaches supported by the use of ICT2.3c Appropriate curricular materials are available to support teachers in their use of personalised learning approaches using ICT |

| **3. ICT4I policy goal for the school level: all schools are able to implement and maintain an effective, sustainable ICT4I infrastructure** |
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| **Policy objectives to be met**  | ***Policy actions to be monitored in terms of the extent to which*** ***…*** |
| 3.1 Schools have access to an effective and sustainable ICT infrastructure  | 3.1a All schools have ICT4I policies and strategic action plans that are in alignment with the national ICT4I policy3.1b All schools benchmark and then monitor their use of ICT to support all learners3.1c All school level strategic action plans for ICT4I are adequately funded via recognised regional or national level mechanisms3.1d All schools follow recognised minimum standards for ICT accessibility, including web accessibility, learner e-safety and open-access content |
| 3.2 Schools and all professionals working within them are effectively enabled to use ICT to widen participation and increase learning opportunities for learners with disabilities and special educational needs | 3.2a All schools have access to and make use of inter-disciplinary support structures for ICT4I3.2b All schools have access to different forms of digital curricula, content and materials that can be modified to meet the demands of specific learning situations3.2c All schools teams are supported to develop their own accessible digital curricula materials that provide: physical access; sensory access; cognitive access for learners with a wide range of needs3.2d All schools teams are provided with clear and coherent guidelines on how to ensure standardised, high-stakes assessment procedures (such as formal examinations) can be made more inclusive through the use of ICT |
| 3.3 Schools leaders are enabled to promote the use of ICT to support learning in inclusive education settings | 3.3a All schools leaders are supported in understanding their role in inclusive education and viewing diversity in the classroom as an opportunity problem for learning3.3b All schools leaders have access to inter-disciplinary support in enacting a vision for and managing the process of using ICT to support inclusive education |

| **4. ICT4I policy goal for the regional/national level: the ICT4I infrastructure at national and/or regional level is able to effectively support the work of all schools and teachers working in inclusive settings** |
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| **Policy objectives to be met**  | ***Policy actions to be monitored in terms of the extent to which*** ***…*** |
| 4.1 All stakeholders see ICT4I as a tool to widen participation and increase educational opportunities for all learners, including those with disabilities and special educational needs | 4.1a All stakeholders in the ICT sector and inclusive education see access to appropriate ICT and ATs as a human rights issue 4.1b All stakeholders understand that accessible ICTs can be used to widen participation and increase educational opportunity for learners with disabilities and special educational needs 4.1c Awareness-raising campaigns that have the explicit aim of developing positive attitudes towards disability, learning difficulties and special needs have been developed and implemented with policy-makers and all key stakeholders in the ICT4I eco-system4.1d Awareness-raising campaigns on the added value of ICT for learning and the wider societal benefits of accessible ICT in terms of better facilities for all learners, not just those with disabilities and special educational needs, have been developed and implemented4.1e Clear and comprehensive information has been provided on the availability of accessible ICTs to meet specific learning needs across all educational sectors4.1f There is a shared approach that uses the same language and is based on consensus around the concepts of ICT4I for all stakeholders 4.1g There is shared understanding among key stakeholders regarding the required elements for an effective ICT4I infrastructure |
| 4.2 There is an agreed trans-sectoral policy for ICT4I at national level | 4.2a National and local level audits to identify priority areas for policy development and capacity building have been undertaken 4.2b There is agreement among policy-makers, researchers, educational professionals and users on the definition of key concepts (such as accessible ICT or inclusive education) used within any ICT4I policy4.2c There are established mechanisms for learners with disabilities and special educational needs, their parents and representatives groups to contribute to policy-related debates at local, regional and national levels4.2d A cross-sectoral ICT4I policy has been developed that covers: roles and responsibilities, provision and support structures, universal design approaches, inter-operability guidelines, accessibility standards and procurement guidelines4.2e All ICT4I policy objectives and actions are reflected in other policy directives (for general education, inclusive education and use of ICT in education) and the policy content is cross-referenced with all other relevant policies in order to ensure coherent policy implementation4.2f A strategy to communicate the ICT4I policy effectively to all stakeholders has been developed and implemented4.2g The systems of accountability – including methods for systematic policy impact evaluation – linked to the ICT4I policy and its implementation have been discussed with and agreed upon by all stakeholders 4.2h Universal Design principles and requirements for applying accessibility standards have been promoted in the ICT4I suppliers’ eco-system4.2i Minimum standards for the provision of ICT accessibility tools across all educational sectors have been specified within the ICT4I policy4.2j A procurement framework agreement at national level has been developed that is guided by universal design principles 4.2k A national resource database of accessible ICT procurement possibilities (products, accredited vendors, etc.) has been established and promoted 4.4l All service providers responsible for delivering educational and/or ICT-related services have been made aware of their responsibilities and act in compliance with the ICT4I policy |
| 4.3 There is an effective infrastructure for ICT4I across all educational, home and social settings | 4.3a There is seamless provision of accessible ICT across all educational sectors as well as home situations; AT available in one educational context is available within the home situation, as well as upon transition to other educational sectors4.3b An effective ICT4I infrastructure – incorporating needs assessments, procurement, installation, maintenance, training and support – that promotes innovation in inclusive education practice at organisational levels has been established within all educational settings4.3c The overall framework of ICT4I provision is fit-for-purpose, affordable and sustainable in the long term4.3d All schools follow an agreed approach in applying accessibility standards and procurement guidelines4.3e Formal links have been established between the training of teachers and the training of librarians; media and information personnel; ICT providers; IT professionals and web masters; administrators and AT support personnel to ensure a shared approach that uses the same language and concepts4.3f All professional trainers involved in the ICT4I eco-system have been provided with training in the use of ICT generally and accessible ICT specifically4.3g Training in the use of accessible ICT4I provided for parents, families, caregivers or representatives of learners with disabilities and special educational needs is in parallel with the training given to teachers4.3h Experienced users of accessible ICT have been supported in acting as role models of good practice for other learners, educators and ICT professionals4.3i Extensive access to wider educational resources (such as libraries), distance learning opportunities, inclusive learning tools, content and support for learners, their families and representatives in all formal and informal learning situations has been supported4.3j Local level capacity-building initiatives to promote the development of ICT4I have been supported |
| 4.4 There is effective on-going dialogue and consultation involving all stakeholders in the ICT4I eco-system | 4.4a On-going active dialogue and consultation has been established with main stakeholders: learners with disabilities and special educational needs, their parents, families and advocates, as well as representatives from civil society and the ICT4I eco-system4.4b Mechanisms have been established for learners with disabilities and special educational needs to have their voices heard within all educational contexts4.4c The individual and collective responsibilities of stakeholders have been made clear and communicated in a coherent and effective way4.4d Support has been made available for stakeholder-led initiatives to promote: the sharing of assistive technology resources across different end-user groups; access to community-based, informal learning opportunities; increased access to public learning resources and distance learning opportunities4.4e Schools have been supported to be innovative in using technology to support communication with different stakeholders in inclusive education |
| 4.5 There is support for research and development initiatives that take ‘user-involved’ as well as ‘user-centred’ approaches and lead to new accessible ICT tools that are applicable to all learners, including those with disabilities and special educational needs | 4.5a In co-operation with all key stakeholders, a comprehensive research and development programme has been developed that considers all aspects of ICT4I policy and its impact in the medium and long term4.5b Adequate funding from national and/or international sources to support the research programme has been secured4.5c Minimum standards for accessing financial support for research – including the need for ‘user-involved’ as well as ‘user-centred’ approaches and the need for research to focus upon the development of technology and its application to personalised learning in inclusive education – have been identified4.5d Key partners in research and development – industry, community representatives – have been actively engaged with the research community4.5e Research initiatives take account of lifelong learning contexts and do not solely focus upon schools4.5f Open-access databases/knowledge centres of research initiatives, findings and outcomes relating to the use of ICT in different educational contexts have been established |