

DRAFT THEMATIC GUIDANCE FICHE FOR DESK OFFICERS
ENHANCING ACCESS TO AND USE AND QUALITY OF ICT – DIGITAL GROWTH
VERSION 2 - 13/03/2014

RELEVANT PROVISIONS IN THE LEGISLATION

Regulation	Articles
<p style="text-align: center;"><u>Common Provisions Regulation</u> No 1303/2013</p>	<p>Article 9 (2) - Thematic objective: enhancing access to, and use and quality of, information and communication technologies;</p> <p>Related provisions:</p> <p>ANNEX I (CSF), section 4 (Coordination and synergies with Horizon2020 and other centrally managed EU programmes in the areas of research and innovation, Connecting Europe Facility).</p> <p>ANNEX XI, Ex ante conditionality 2.1</p>
<p style="text-align: center;"><u>European Regional Development Fund Regulation</u> No 1301/2013</p>	<p>Article 5(2) (b) and (c)- Investment priorities: developing ICT products and services, e-commerce and enhancing demand for ICT; strengthening ICT applications for e)government, e-learning, e-inclusion, e-culture and e-health</p> <p>Related provisions:</p> <p>Article 3 (c) - Scope of support from the ERDF</p> <p>Article 5 (1, 3, 11) - Investment priorities R&I, SME competitiveness, administrative capacity</p>
<p style="text-align: center;"><u>European Social Fund Regulation</u> No 1304/2013</p>	<p>Article 3 (2) b - Enhancing the accessibility, use and quality of information and communication technologies through digital literacy, e-learning, and investment in e-inclusion, e-skills and related entrepreneurial skills;</p> <p>Related provisions:</p> <p>Article 3 (1) c - upgrading the skills and competences of the workforce</p> <p>Article 3 (1) d Enhancing institutional capacity and efficient public administration</p>
<p style="text-align: center;"><u>European Territorial Cooperation Regulation</u> No 1299/2013</p>	<p>Related provisions: Recital 5 - Cross-border cooperation in the field of ICT</p> <p>ANNEX, Common output indicators for the European territorial cooperation goal</p>

<p style="text-align: center;"><u>EAFRD</u> <u>Regulation</u> No 1305/2013</p>	<p>Article 5(6)(c) enhancing accessibility to, use and quality of information and communication technologies (ICT) in rural areas.</p> <p>Related provisions:</p> <p>Article 19(1)(a)ii – start-up aid for non-agricultural activities in rural areas;</p> <p>Article 19(1)(b) – investments in creation and development of non-agricultural activities;</p> <p>Article 20(c) – broadband infrastructure, including its creation, improvement and expansion, passive broadband infrastructure and provision of access to broadband and public e-government solutions;</p> <p>Article 35(1)(a) – co-operation approaches among different actors;</p> <p>Article 35(1)(b) – creation of clusters and networks</p> <p>Article 44 – LEADER co-operation activities</p>
<p style="text-align: center;">EMFF Regulation</p>	<p>Related provisions:</p> <p>Article 16 (e) developing techniques to optimise the operation of the market including information and communication technology</p>

This is a draft document based on the new ESIF Regulations published in OJ 347 of 20 December 2013 and on the most recent version of the relevant Commission's draft implementing and delegated acts. It may still require review to reflect the content of these draft legal acts once they are adopted.

1. INTRODUCTION

This guidance explains issues related to ERDF Investment Priorities 2(b) and 2(c) *for enhancing access to and use and quality of ICT through (b) developing ICT products and services, e-commerce and enhancing demand for ICT and (c) strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health* and related investment priorities by the ESF.

2. STRATEGIC FRAMEWORK

2.1. *Importance of ICT for socio-economic development*

ICT is the single most important driver of innovation and growth for national economies worldwide. The digital technologies are changing our lives, the way we work, shop, socialise, communicate, educate and entertain ourselves. They play a **horizontal cross-cutting role** as they enable the spread of innovation in economic activities. The introduction of internet-related processes leads to massive gains in **productivity in other industries and services** as well as in high-tech activities. More than 75% of the value added created by the Internet is in traditional industries. Digital technologies re-shape entire industries and value chains, reduce barriers to entry, sharpen market intelligence, blur industry boundaries and open doors for a new generation of entrepreneurs and innovators. New technological developments speed up and improve the way new innovative products and services are conceived, developed, produced and accessed. They are enabling smaller, innovative and dynamic businesses to develop and bring faster to market innovative products and services that were impossible to think about before. Businesses that fail to get digitally connected will be simply excluded from the global market.

Information technology enables economies to create more jobs, improve people's lives and build better and greener societies. Companies adopting broadband-based processes improve their employees' labour productivity on average by 5% in the manufacturing sector and by 10% in the services sector¹. It is estimated that just a 10 % increase in broadband take-up could result in an increase in GDP growth of between 0.9% and 1.5% increase in GDP growth². Also the public sector can benefit from ICT-enabled productivity gains, thanks to e-government solutions.

Two billion people are connected to the Internet now and, by 2016, this number will exceed 3 billion users, almost half of the world's population offering new opportunities. The "digital economy" contributes already up to 8% of GDP in some economies, powering growth and creating jobs. European SMEs grow two to three times faster when they embrace digital technologies. However, this huge potential is far from fully exploited and seizing future potentials requires forward looking approaches.

¹ Micus 2008 quoted in "The socio-economic impact of bandwidth" Final Report: <http://ec.europa.eu/digital-agenda/en/news/study-socio-economic-impact-bandwidth-smart-20100033>

Applications for e-health, e-government, e-learning, intelligent transport, smart grids and buildings, digitisation of cultural heritage (e-culture), e-tourism, cyber-security, and in other fields **may not only require research and development**, but their success depends on developing and deploying them through a **user-driven innovation approach and social innovation techniques** (e.g. open data, crowd-sourcing, smart communities, LivingLabs³, co-creation, work place innovation, etc.). Broadband access is an indispensable pre-condition for this. Such advanced ICT applications with many simultaneous users require high-speed broadband networks, including wireless solutions to ensure ubiquitous availability. (see thematic guidance fiche on Investment Priority2a – broadband)

The EU policy framework for ICT investments is the **Digital Agenda for Europe**⁴ and the **Industrial Policy Update**⁵ that includes as part of the Entrepreneurship 2020 Action Plan a new initiative for Digital Entrepreneurship. Its vision is **to accelerate the transformation of the European business landscape through the development and smart use of novel digital technologies** in order to increase growth and create employment. Europe needs to do more to help entrepreneurs and businesses to create more entrepreneurial actions based on the novel digital technologies.

ICT interventions should consider at least three dimensions:

- **ICT as a sector** represent 5% of the total GDP and 20% of overall productivity growth in Europe. The digital economy is growing at seven times the rate of the rest of the economy⁶. Exploiting the potential of the ICT sector means targeting ICT industrial and technological leadership in research, development and innovation on Key Enabling Technologies (KETs) such as micro- or nano-electronics, photonics, embedded systems, etc.), or promoting clusters and local/regional eco-systems of ICT companies in specific niche fields (for example within the contexts of future networks, internet of things, trustworthy ICT, network media, networked data, networked interaction, augmented reality, internet—driven style innovation, etc.).
- Developing the **horizontal cross-cutting role** of ICT to **spread innovation, sustainability and competitiveness in economic activities and social inclusion**: There are more than 4 million ICT workers across many sectors in Europe and their number is growing by 3% annually despite the crisis. Enabling more entrepreneurs and SMEs build on the potential of novel digital technologies is vital for growth and jobs. This needs to support them to fully exploit the potential of new technologies, both in terms of supply of new digital products and services, and in terms of demand and smart use of these technologies.⁷
- **ICT skills**: By 2015, 700,000 to 1 million high-quality ICT jobs will not be filled. Addressing this forthcoming skills gap is the aim of the Grand Coalition on Digital Skills and Jobs of the Digital Agenda. Also social inclusion increasingly hinges on the ability to use and access ICT.

³ European Network of LivingLabs: <http://www.openlivinglabs.eu/>

⁴ Communication from the Commission on "The Digital Agenda for Europe - Driving European growth digitally", COM(2012) 784 final

⁵ Communication from the Commission on "A Stronger European Industry for Growth and Economic Recovery: Industrial Policy Communication Update" COM(2012) 582 final

⁶ [Europe's Digital Competitiveness Report](#)

⁷ See Digital Entrepreneurship initiative, as part of the Entrepreneurship 2020 Action Plan: http://ec.europa.eu/enterprise/policies/sme/entrepreneurship-2020/index_en.htm

The main purpose of Investment Priorities 2b and 2c is to foster productivity in economic activities and public administration. **The purchase of ICT equipment, software, broadband connectivity and memory capacity (e.g. cloud storage) as such is not enough to attain this. Attaining the objective of enhanced use of ICT requires often the use of set of technologies (e.g., mobile, cloud, big data) in combination with skills measures, organisational and process changes, etc.**

2.2. *Ex-ante conditionality - link to smart specialisation strategies*

The ex-ante conditionality for ESI Funds investments in ICT quality and use is the existence of a strategic policy framework for digital growth, for instance within the national and/or regional research and innovation strategic policy framework for smart specialisation. The basis of such a strategic framework is the **analysis of relevant socio-economic issues** (such as ageing, education, income, level of ICT training/skills, employment status, affordability of services, etc.) that characterise the territorial context. It should consider both demand (e.g. internet accessibility and e-skills as conditions for the demand for ICT solutions by households, businesses and public administrations, user-centred approaches to identify the needs of private and public users) and supply issues (e.g. infrastructure, equipment, services and applications) taking into account the dual role that some measures play. Such a strategic policy framework may contain **specific priorities** in niche ICT fields enabling smart specialisation and **horizontal priorities** supporting ICT-based innovation across all other sectors and activity areas. See ex ante conditionality guidance fiche.

The relevant operational programme(s) should contain a reference to the **name of the framework** and indicate where it is or its different elements are published (in form of a link).

2.2.1. *Ex-ante conditionalities related to the alternate/combined use of TO1, TO2bc or TO3 to invest in ICT based solutions*

The Member State has 2 options, with sub-options:

1. Use **TO2bc**: then it needs to **fully comply with the criteria for the ex ante 2.1.** using the following options:
 - the digital growth strategy is a separate document
 - or the digital growth strategy can be a chapter in the RIS3 (that chapter would still need to undergo a full compliance check according to the 2.1. ex ante criteria)
2. **Not use TO2bc**, but TO1 (ICT innovation is included through the "general purpose technologies", and even public sector solutions can be developed and deployed under IP1b) or TO3 for ICT based SME competitiveness measures.

In this case only the TO1 or TO3⁸ ex ante conditions need to be fulfilled, e.g. a RIS3 with an ICT element / specialisation field in it **does not need to comply with the 2.1. ex ante criteria.**

What is not acceptable is that a MS has an ICT chapter in its RIS3 that is not conforming with the 2.1. ex ante criteria, but uses TO2.

⁸ The 3.1 ex ante conditionality for TO3, Enhancing the competitiveness of small and medium-sized enterprises (SMEs) does not need any reference with digital agenda scoreboard indicators.

3. REGULATORY SCOPE OF SUPPORT

3.1. The ERDF

3.1.1. Scope of support

In line with the results orientation of the new legislative framework for Cohesion policy, the ERDF regulation distinguishes clearly between

- the scope of support for the ERDF (the activities it may support) and
- the investment priorities for each thematic objective (objectives to which the ERDF shall contribute). These investment priorities should form the basis for the definition of specific objectives within programmes that take into account the needs and characteristics of the programme area.⁹

For an operation to be eligible for ERDF support it must contribute to a specific objective defined for an investment priority and fall within the scope of the fund's activities.

The primary area of support from the ERDF for enhancing use and quality of ICT is provided for in the context of the **development of endogenous potential which allows fixed investment in equipment and small-scale infrastructure**, services to enterprises, support to research and innovation bodies and investment in technology and applied research in enterprises (Article 3.1 (e) ERDF). However, all types of ICT infrastructure might get support from the ERDF (Articles 3.1 (c, d, e) ERDF).

The ERDF may also support **productive investments in SMEs** (Article 3.1 (a) ERDF). Productive investments in large enterprises is only possible in the field of ICT, where it involves **cooperation between large enterprises and SMEs** (Article 3.1 (b) ERDF) as this cooperation between large companies and SME proved to foster the development of services, applications and products.

The possibility to invest in ICT is also covered under the following activities, set out in Article 3(1) f: *networking, cooperation, and exchange of experience between competent regional, local, urban and other public authorities, economic and social partners, and bodies representing civil society referred to in Article 5 of the CPR, studies, preparatory actions and capacity building*, which enables the financing for all kind of support measures including cooperation among enterprises, exchange of good practices, thematic technical assistance on ICT etc.

Conversely, support for ICT projects in the areas of decommissioning of nuclear power stations, tobacco and in undertakings in difficulty are excluded from ERDF investments. It is also excluded in airport infrastructure other than related to environmental protection, unless accompanied by investments necessary to mitigate or reduce its negative environmental impact.

Finally, it is also excluded in large enterprises where no cooperation with SMEs is undertaken.

Cfr. Recital 7 of the ERDF Regulation: (...) investment priorities should set out detailed objectives, which are not mutually exclusive, to which the ERDF is to contribute. Such investment priorities should form the basis for the definition of specific objectives within programmes that take into account the needs and characteristics of the programme area.¹⁰ e.g. by setting up a dedicated ICT/Broadband centre of competence / Implementing Body that takes responsibility for streamlining of procurement specifications (including technical standards), state aid notifications, collection of monitoring data, advice on technological and regulatory aspects, etc.

3.1.2. *Investment priorities*

Investments for support to digital growth under thematic objective 2 "Enhancing access to and use and quality of ICT" shall contribute to the following investment priorities:

2 (b) developing ICT products and services, e-commerce and enhancing demand for ICT;

2 (c) strengthening ICT applications for e-government, e-learning, e-inclusion, *e-culture* and e-health.

3.1.3. *Synergies with the other investment priorities under ERDF*

Given the horizontal nature of ICT applications, careful consideration of how ICT could contribute to the other thematic objective needs to be carried out. Synergies should be pursued with activities under other TO's, including research, technological development and innovation (TO1) for the development of new ICT, support for Small and Medium-sized Enterprises (SMEs) (TO3) in taking up ICT or providing ICT solutions and services, and the use of ICT in the shift towards the low-carbon economy (TO4), promoting climate adaptation, risk prevention and management (TO5), preserving and protecting the environment and promoting resource efficiency (TO6), promoting sustainable transport and removing bottlenecks (TO7). ICT investments can also fall under the scope of Investment Priority 11 (enhancing institutional capacity and an efficient public administration), which is dedicated to fostering the administrative capacities related to ERDF implementation measures. See also the specific thematic guidance fiche.

3.2. ESF, EAFRD and EMFF investments in ICT

3.2.1. *ESF*

E-skills are indispensable for successful ICT use. The ESF can therefore invest in enhancing the accessibility, use and quality of information and communication technologies through digital literacy, e-learning, e-inclusion, e-skills and related entrepreneurial skills (Article 3 (2) b ESF) and in ICT related skills as part of the upgrading the skills and competences of the workforce (Article 3 (1) c ESF). Actions could aim at increasing IT and ICT training placements, increasing competences among employees, creating more direct education-business links, agreeing standard job profiles and promoting skill certification and the training of highly skilled digital specialists, supporting e-learning and life-long learning actions (to facilitate employability and job mobility), promoting the growth of entrepreneurial e-skills (e.g.: web entrepreneurs) and other ICT measures aimed at making Europe more "start-up friendly".

The ESF also foresees to invest in enhancing institutional capacity and efficient public administration (Article 3 (1) d ESF) to improve the efficiency and effectiveness of public administrations providing services to citizens and businesses as well as other administrations in the context of the ESI Funds implementation. It may include the acquisition of specific e-skills, the use of ICT experts, promotion of good practice, including the development of tools and adoption of e-cohesion, e-government and e-procurement.

3.2.2. *The EAFRD*

Under Article 21(c) of the EAFRD Regulation (measure "Basic services and village renewal in rural areas") operations targeting the provision of access to **e-government solutions** are possible. Support could only be provided to rural areas as defined by Member States in accordance with Article 50 of the EAFRD Regulation. For an operation to be eligible for EAFRD support it must be part of a programmed measure under the rural development programmes (RDP), which measure supports objectives under the relevant focus area. The EAFRD can also support

- IT activities in rural areas (including newly developed activities for which start-up aid is foreseen) as well as co-operational activities, networking and clusters in this field, in accordance with the provisions of the specific measures and of the rural development programmes.
- ICT in agriculture, forestry and agro-food industry, thus supporting the technological upgrade and development of these sectors.
- advisory services to SMEs linked to the economic and environmental performance of the enterprise, or the economic, agricultural and environmental performance of an agricultural holding.
- training and information actions on ICT matters and/or digital skills for persons engaged in the agricultural, food and forestry sector, land managers and other economic actors which are SMEs operating in rural areas.
- IT solutions related to energy efficiency (e.g. smart grids), environment (e.g. geo-monitoring and localisation tools), transport, service provision in rural areas and in agriculture and forestry, etc.

3.2.3. *The EMFF*

The **EMFF** allows to invest into developing techniques to optimise the operation of the market, including ICT (Article 16 (e) EMFF).

In any case, according to section 3.2 of the Common Strategic Framework (Annex I to the CPR), coordination and complementarity between the ESI Funds (ERDF, ESF, EAFRD and EMFF) for investments in ICT need therefore to be sought in the Partnership Agreements and at programme level.

4. **POLICY GUIDELINES ON DIGITAL GROWTH.**

4.1. **Policy considerations.**

4.1.1. *Investments in ICT use vs. ICT-based innovation vs. SME competitiveness investments*

Many of the measures to enhance the competitiveness of SMEs (TO 3) are ICT enabled, e.g. new business models are often dependent on ICT. The question whether such investments should rather be in a priority axis related to TO 3 or Investment Priority 2b can thus arise. This decision should take into account the **overall aim of the envisaged operations**, e.g. if ICT support is one tool among many (for instance alongside innovation management advice, access to finance, etc.) to help SMEs become more competitive, it might be better placed in **TO 3 rather than under Investment Priority 2b, because this allows to give more comprehensive support for web / digital entrepreneurs and ICT-based new business models than one could do under Investment Priority 2b.**

Another consideration is the use of Investment Priority 2b vs. Investment Priority 1b that aims to foster research and innovation, including social innovation and service innovation that are often mainly ICT enabled, and possibly research, development, pilots etc. in the field of Key Enabling Technologies (which include ICT). **If the aim of a priority axis goes beyond the strict limitation to increasing ICT use by public sector, citizens and SMEs, it might be better to choose Investment Priority 1b for this axis.** This would also allow funding activities in large enterprises.

In any case, the investments need to fit into the smart specialisation strategy or into the digital growth strategic policy framework, depending on the **investment Priority** (1b or 2bc) under which the ICT investments fall.

4.1.2. E-government vs. public sector innovation vs. administrative capacity building?

Public sector innovation can be funded under Investment Priority 1b. Aspects of public sector innovation like e-government and related cloud computing or e-procurement could be funded also under Investment Priority 2c and if related to the ERDF Funds management, under Investment Priority 11 for the ERDF (for ESF, TO11 is dedicated to overall general public sector modernisation or reform)

Investment Priority 1b might be the most suitable Investment Priority, if the aim is to **innovate the organisation and processes in the public sector in general** (incl. unrelated to ERDF or ESF management), and that need investments beyond the simple purchase of an ICT solution and that provide business opportunities for providers of the public sector applications. To qualify for Investment Priority 1b, the investments need also to fit into the relevant smart specialisation strategy.

Investment Priority 11 would be best suited for ERDF, if the purpose of the ICT solutions is mainly to improve the capacity and efficiency of public administrations and public services **related to implementation of the ERDF (and ESF)**. Investment Priority 11 would for instance be suitable to reinforce the planning and implementing capacity of the public sector for broadband planning, if they are related to ERDF support, but not directly linked to a specific operation under IP2a (where preparatory work for specific broadband projects is funded)¹⁰

If the aim is exclusively to improve the efficiency of management of ERDF, technical assistance budgets might be used for this. See guidance fiche on TA.

4.1.3. ICT as enabler for energy, environment and transport solutions

ICT is also an enabler of solutions for energy efficiency (e.g. smart grids), environment (e.g. geo-monitoring and localisation tools), and transport (traffic management applications) and can be funded under the relevant Investment Priorities.

The decision under which Investment Priority these ICT solutions are funded should depend on the main objective pursued by the investments, e.g. if the objective is energy efficiency, then TO 4, if the objective is the development of start-ups in the field of ICT enabled energy solutions, TO 3 and if the use of ICT and the enhancement of ICT applications' quality is the aim, then Investment Priority 2b would be indicated.

¹⁰ e.g. by setting up a dedicated ICT/Broadband centre of competence / Implementing Body that takes responsibility for streamlining of procurement specifications (including technical standards), state aid notifications, collection of monitoring data, advice on technological and regulatory aspects, etc.

In case the MA opts for funding ICT related interventions under other Investment Priorities but TO 2, programmers should be invited to ensure **visibility of the ICT investments** during the implementation by using the ICT related codes in the **nomenclature of categories of intervention** (ICT codes are presented as activity type, as sector and even as specification of ESF investments).¹¹

4.2. Key Measures Linked to Investment Priorities

4.2.1. *Investment Priority 2(b) for enhancing access to and use and quality of ICT through developing ICT products and services, e-commerce and enhancing demand for ICT*

This investment priority focuses on business ICT solutions and includes two aspects: (1) the support to firms that develop ICT products and services for private and public use, i.e. targeting ICT sector firms, and (2) the support for buying and using (new or existing) e-business solutions, i.e. targeting the support at firms in other sectors. These aspects may also be combined in an intervention.

The support to the development and deployment of such IT solutions should focus on SMEs. Large firms should only be involved in the sense of cooperation partners or suppliers of the SMEs.

ICT products and services include both hard-ware and soft-ware, social media, mobile, cloud, and cyber solutions. Also services necessary for take-up the IT solutions may be included, as well as support to networking, awareness raising and other activities.

A guide on “**Boosting smart use of ICT by SMEs**” will be made available by DG ENTR in 2014. The guide will provide concrete examples of good practices and business cases that facilitate the smart use of ICT and the integration of smaller businesses in global digital value chains. It builds on a recent study¹² that identified a set of **novel digital technological trends** (social, mobile, analytics, cloud, and cyber solutions) that are already transforming the business landscape, provided good examples of national strategies to stimulate Digital Entrepreneurship and proposed concrete policy recommendations at EU, national/regional level, addressed to the public and/or private sector. Policy recommendations cut across different policy areas, from boosting digital and entrepreneurial skills and talents to leveraging the Single Market, innovation campaigns, awareness and mentoring, access to finance, crowd-funding, visa act for highly skilled entrepreneurs, reinforcing clusters, etc.

The **guide on service innovation**¹³ sets out a number of good practices¹³ to foster the development, testing and deployment of ICT based innovations, new business models and services either B2C (services for consumers) or B2B (business services). These include support for **clustering, networking, vouchers, LivingLabs, large scale demonstrators** (i.e. the testing of innovative solutions in a real life environment, involving users, other service providers and infrastructures) and different types of

¹¹http://ec.europa.eu/regional_policy/what/future/pdf/preparation/fiche_categorisation_climate_change_tracking_2013_03_18.pdf

¹³http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4_service_innovation_en.pdf

voucher schemes, including the type of ICT vouchers for the ICT take-up by SMEs that is currently promoted by DG CNECT for pilot actions under the current OPs.

Also the **Creative industries guide** provides inspiration for ICT support measures involving creative and cultural industries¹⁴, so does the **Universities guide**¹⁵, the **Incubators guide**¹⁶ and the **Social innovation guide**¹⁷.

Also financial instruments may be suitable for supporting ICT use, digital entrepreneurship, etc.

Please note that in 2014-2020 programming period OP support can be provided to this thematic objective through **Financial Instruments** (FIs) set-up at EU, national, regional, transnational or cross border level, under the form of equity, quasi-equity investments, loans, guarantees, or other risk-sharing instruments. See guidance on FIs.

See also the thematic guidance fiches for research and innovation TO 1) and SME competitiveness (TO 3).

4.2.1. Investment Priority 2(c) for enhancing access to and use and quality of ICT through strengthening ICT applications for e-government, e-learning, e-inclusion, e-culture and e-health

The Digital Agenda for Europe aims to increase the use of eGovernment services to 50% of EU citizens by 2015: The eGovernment Action Plan¹⁸ contains forty specific measures to enable citizens and businesses to use online facilities. Data from the Digital Agenda Europe Scoreboard¹⁹ on eGovernment services report a good and increasing level of availability of public services for citizens and enterprises since 2007. However, the level of take-up of these services among enterprises and particularly among citizens requires improvement:

- *Services to Enterprises:* The use of eGovernment services by large and medium firms continues to increase. However, small firms appear to use eGovernment services to a lesser extent. Lack of employees with sufficient digital skills seem to explain part of the lower take-up by small firms. Moreover, the incomplete transfer to the online channel of all procedures linked to a particular service is cited by enterprises as the most relevant barrier limiting the increase of online interaction with public administrations. Too complicated and/or time-consuming services are the second largest barrier to increased usage but the relative importance of this cause is very much dependent on an enterprise's size. Lack of the necessary skills, also reflected by the relatively low percentage of advanced users of eGovernment services, is still an important limiting factor in small enterprises.

¹⁴ <http://www.scottish-enterprise.com/~media/SE/Resources/Documents/DEF/EU-creative-industries-funding-guide.pdf>

¹⁵ http://ec.europa.eu/regional_policy/sources/docgener/presenta/universities2011/universities2011_en.pdf

¹⁶ http://ec.europa.eu/regional_policy/sources/docoffic/2007/working/innovation_incubator.pdf

¹⁷ http://ec.europa.eu/regional_policy/sources/docgener/presenta/social_innovation/social_innovation_2013.pdf

¹⁸ <http://ec.europa.eu/digital-agenda/en/european-egovernment-action-plan-2011-2015>

¹⁹ DAE 2012 Scoreboard: <http://scoreboard.lod2.eu/index.php?page=indicators>

- *Services to citizens:* The number of citizens using online public services stalled in 2011 when only 41% of EU citizens used them, as in 2010 and to 20% for those services involving the sending of filled forms. The analysis of barriers to the use of advanced eGovernment services reveals the existence of a digital divide both in the level of digital skills and in the attitude toward the privacy and protection of personal data. By far the most important reason for not using the internet for interacting with public administrations is the lack of willingness, with lack of skills for interacting with public websites being the second main reason, while concerns about the security of personal data ranks third. The most popular services are declaring income taxes, moving or changing address and enrolling in higher education and/or applying for student grants.²⁰

The take-up of e-government solutions by citizens and businesses has been successfully stimulated by a combination of:

- **Legal and administrative incentives** for instance in the form of lower administrative cost, faster treatment of e-applications than paper applications, faster re-imburements, etc. (this could as such not funded from ERDF)
- Provision of **free access to Internet terminals in public administrations combined with hands-on support for citizens** that are not experienced IT users,
- **Co-design of e-government applications and the administrative procedures** in which they are embedded.

Information on **good practice cases** for

- e-government: the MindLab in DK: <http://www.mind-lab.dk/en/cases>
- e-learning: <http://elearningeuropa.info/en/projects>
- e-inclusion: http://ec.europa.eu/information_society/activities/einclusion/index_en.htm
- e-culture (the digitisation of cultural content and cultural heritage, and use of ICT for cultural production and consumption):
http://ec.europa.eu/culture/eu-funding/culture-and-the-structural-funds_en.htm
http://ec.europa.eu/culture/eu-funding/the-success-of-culture-based-development_en.htm
- e-health: http://ec.europa.eu/health-eu/care_for_me/e-health/
- See also good practices in a range of e-government fields:
http://daeimplementation.eu/best_practices.php ,
<http://www.epractice.eu/en/cases/> and <http://www.wsis-award.org/winners>

Negotiator could ask programmers:

- Besides investments into the development of e-government services and the purchase of the necessary equipment, have measures been considered that ensure the use by the target groups? Skills, incentives for the use (e.g. faster treatment of files), data security, user-friendliness, broadband access in the target territory etc.)?

²⁰ eGovernment Benchmark 2012 Insight Report: https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/eGov%20Benchmark%202012%20insight%20report%20published%20version%200.1%20_0.pdf.

- Is the development of e-government solutions accompanied by a reorganisation of the public services concerned?
- Is there a stated preference to use standardised and cost-efficient solutions that ensure inter-operability rather than more costly and tailor-made ones which could lead to fragmentation?

4.3. Synergies with other EU funding programmes

To maximise European added value in the field of telecommunication, Member States and the Commission shall ensure that ERDF and Cohesion Fund interventions are planned in close cooperation with the support provided from the Connecting Europe Facility (CEF)²¹. Although the digital CEF budget for broadband has been drastically cut by the European Council, the “digital services infrastructures” part is expected to continue in the line of the CIP ICT-PSP²² and promote the trans-European interconnection and interoperability of public online services as well as access to such networks in order to facilitate the mobility of businesses and citizens and facilitate cooperation among public services. The CEF funded digital service infrastructures are composed of core service platforms and generic services. The core service platforms²³ shall be implemented primarily by the Union while generic services shall be implemented by the parties connecting to the relevant core service platform. This opens scope for synergies with ESI Funds investments under IP 2c.

As regards synergies between e-government related ERDF investments with the services part of the digital CEF, negotiators could ask:

- How will be ensured that the potential for inter-operability of the ERDF e-government solutions with the digital CEF services activities will be exploited? (e.g. interoperability of the public procurement systems – see list in annex 2)

5. LESSONS FROM THE PAST AND RESULT ORIENTATION

The reformed cohesion policy in the next programming period involves a major shift from resource-orientation to result-orientation. Result indicators together with a clear intervention logic and good quality reporting on outputs will allow us to measure progress of the policy. The performance framework will allow us to monitor and incentivise efficient implementation of the policy as planned.

²¹ Annex I, section 4.8, of the CPR; see also Amended proposal for the REGULATION on guidelines for trans-European telecommunications networks and repealing Decision in COM(2013) 329

²² The large-scale pilot projects STORK (cross-border use of electronic identification, allowing citizens and businesses to access eGovernment services in any Member State), PEPPOL (e-procurement interoperability), SPOCS (“one-stop shops” for administrative procedures online), and epSOS (cross-border accessibility of medical files) are four examples of major CIP ICT-PSP initiatives: http://ec.europa.eu/information_society/activities/ict_psp/projects/index_en.htm

²³ See annex 2: digital service infrastructures a priori identified to be included in the digital CEF work programmes according to COM(2013) 329

The choice of support measure and their combination will depend on the specific objective for the investment priority. In line with the intervention logic, objectives and intended results should be defined first, before deciding on actions and the financial allocation. Against this background:

Examples of result indicators²⁴ (one specific objective should be reflected in one or maximum two result indicators):

- % basic public services for citizens fully available online
- % basic public services for enterprises fully available online
- % of population using e-Government services
- % enterprises purchasing online
- % enterprises selling online
- indicators listed in the Digital Agenda Scoreboard²⁵ if fitting the intervention logic

Outputs

- The output indicators measure the deliverables of the Operational Programme expected to contribute to the intended change. Output indicators should capture what the resources are spent on. Common and programme specific indicators can be used. Baselines should be set at the level of zero, while quantified cumulative targets should be identified. Rooted in the intervention logic - how this amount of resources spent on activities delivering these outputs is supposed to contribute to a change in result indicator? – to be assessed in the ex ante evaluation.
- Targets set should be plausible and reporting of achievements should be reliable. When setting targets it is essential to make sure that targets are realistic. How to judge this? Use your common sense. For example, take into account available information on past performance; compare the target set to the number of population in a given region and the amount of the foreseen financial input or targets set for comparable interventions in other programmes.

Examples of output indicators:

- Number of enterprises supported to carry out e-commerce projects
- Number of people benefitting from the e-learning supported projects
- indicators listed in the Digital Agenda Scoreboard²⁶ if fitting the intervention logic

²⁴ Result indicators should be linked with the needs identified in the Member State or region and specific programme objectives, which of course is not the case of the theoretical examples given in this list.

²⁵ <http://scoreboard.lod2.eu/index.php?page=indicators>

²⁶ <http://scoreboard.lod2.eu/index.php?page=indicators>

Annex 1: Links and relevant sources of policy know-how in this field

Title + description + link	All MS	Regional level	Accession countries
Reference documents			
<p>The Digital Agenda for Europe:</p> <ul style="list-style-type: none"> http://ec.europa.eu/digital-agenda/digital-agenda-europe <p>The Digital Agenda for Europe - Driving European growth digitally (Mid-term Review):</p> <ul style="list-style-type: none"> http://ec.europa.eu/information_society/newsroom/cf/dae/document.tcfm?doc_id=1381 	x	x	x
Data material & analysis			
<p>Digital Agenda scoreboard</p> <ul style="list-style-type: none"> http://ec.europa.eu/information_society/digital-agenda/scoreboard/countries/index_en.htm https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/scoreboard_broadband_markets.pdf https://ec.europa.eu/digital-agenda/sites/digital-agenda/files/COCOM%20Broadband%20July%202012%20final_0.pdf http://ec.europa.eu/digital-agenda/pillar-4-fast-and-ultra-fast-internet-access 	x	x	x
<p>Toolbox on the DAE component of RIS3 and digital policy frameworks (to be finalised by October 2013): http://s3platform.jrc.ec.europa.eu/digital-agenda</p> <p>Service innovation guide: http://ec.europa.eu/enterprise/policies/sme/regional-sme-policies/documents/no.4_service_innovation_en.pdf</p> <p>Creative industries guide: http://www.scottish-enterprise.com/~media/SE/Resources/Documents/DEF/EU-creative-industries-funding-guide.pdf</p> <p>Connecting Universities to Regional Growth: A Practical Guide: http://ec.europa.eu/regional_policy/sources/docgener/presenta/universities2011/universities2011_en.pdf</p> <p>Incubators guide: http://ec.europa.eu/regional_policy/sources/docoffic/2007/working/innovation_incubator.pdf</p> <p>Social innovation guide: http://ec.europa.eu/regional_policy/sources/docgener/presenta/social_innovation/social_innovation_2013.pdf</p>	x	x	x

Guidance & good practices			
<p>A virtual task-force has been set up between DG CNECT and REGIO to support the negotiations on ICT related investments from the ERDF in the following countries and share documents: BG, RO, PL, SK, IT, ES See: http://connected.cnect.cec.eu.int/groups/virtual-task-force-regio-connect-vtf</p>			
<p>European e-Business Support Network for SMEs (eBSN) is an eBusiness policy coordination platform that aims to improve the effectiveness of public SME policies in fostering competitiveness by promoting the innovative use of ICT.</p>			
<p>DG MARKT: “Golden Book” of Good Practice in e-Procurement and e-Procurement Measurement and Country Profiles</p>			
Project Examples replicable e- practices			
<p>Supply for London: Supply4London is a portal designed to be the home of public sector procurement in London.</p> <ul style="list-style-type: none"> • http://www.epractice.eu/en/cases/p4l • https://www.supply4london.gov.uk/ 			
<p>Health Intelligence in Ireland</p> <ul style="list-style-type: none"> • http://www.epractice.eu/en/cases/p4l • https://www.supply4london.gov.uk/ 			
<p>My Street Portal (Fix my Street)</p> <ul style="list-style-type: none"> • http://www.epractice.eu/en/cases/mystreetportal • http://www.portaldocidadao.pt/portal/aminharua/situationreport.aspx 			
<p>Paperless Document Exchange between administrations</p> <ul style="list-style-type: none"> • http://www.epractice.eu/en/cases/decawards • https://www.ria.ee/28567 			
<p>Spatial Data Infrastructure of the Region of Sardinia</p> <ul style="list-style-type: none"> • http://www.epractice.eu/en/cases/sitridt • http://www.sardegнатerritorio.it/j/v/275?s=6&v=9&c=1937&na=1&n=6&b=1 • http://www.sardegnageoportale.it/ • http://webgis.regione.sardegna.it/catalogodati/ricercaavanzata 			
<p>NemID: EasyID is a common log-in solution for Danish Internet banks, government websites and some other private companies.</p> <ul style="list-style-type: none"> • http://taenk.dk/gode-raad/tema/privacy-beskyt-dine-private-oplysninger-paa-nettet/nemid-den-nye-digitale-signatur 			

Annex 2:

Extract from COM (2013) 329 final:

Amended proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on **guidelines for trans-European telecommunications networks and repealing** Decision No 1336/97/EC

Building blocks digital service infrastructures a priori identified to be included in the work programmes in accordance with Articles 6.1 and 6.2:

(a) **Electronic identification and authentication:** this refers to services to enable cross border recognition and validation of e-identification and eSignature.

(b) **Electronic delivery of documents:** this refers to services for the secured, traceable cross border transmission of electronic documents.

(c) **Automated translation:** this refers to machine translation engine and specialised language resources including the necessary tools and programming interfaces needed to operate the pan-European digital services in a multilingual environment.

(d) **Critical digital infrastructures support:** this refers to communication channels and platforms intended to enhance the EU-wide capability for preparedness, information sharing, coordination and response to cyber threats.

(e) **Electronic invoicing:** this refers to services enabling electronic exchange of invoices.

2. Other digital service infrastructures a priori identified as eligible in accordance with Article 6.1:

(a) Interoperable cross-border **electronic procurement services:** This refers to a set of services, which can be used by public and private-sector e-Procurement services providers to set up cross-border e-Procurement platforms. This infrastructure will enable any company in the EU to respond to public procurement procedures from any contracting authority or entity in any Member State covering pre-award and post-award electronic procurement activities, including functionalities such as electronic submission of offers, virtual company dossier, eCatalogues, eOrders and eInvoicing.

(b) Interoperable cross border **eHealth services:** This refers to a platform, which enables the interaction between citizens/patients and health care providers, institution-to-institution and organization-to-organization transmission of data, or peer-to-peer communication between citizens/patients and/or health professionals and institutions. The services shall comprise cross border access to electronic health records and electronic prescription services as well as remote health/assisted living teleservices, etc.

(c) European Platform for the **interconnection of European business registers:** This refers to a platform, which provides a set of central tools and services enabling business registers in all Member States to exchange information on registered businesses, their branches, mergers and windups. It shall also provide a multi-country and multilingual search service for users using a Central Access Point accessible via the e-Justice portal.

(d) Access to **re-usable public sector information:** This refers to a platform for the single access point to multilingual (EU official languages) datasets held by public bodies in the EU at European, national, regional and local levels; query and visualisation tools of the data sets; assurance that the available datasets are properly anonymised, licensed and where applicable priced to be published, redistributed and reused, including a data provenance audit trail.

(e) **Electronic procedures for setting up and running a business in another European country:** This service will allow the dealing of all necessary administrative

procedures electronically across borders through Points of Single Contact. This service is a requirement in the Directive 2006/123/EC on services in the internal market.

(f) Access to **digital resources of European heritage**: This refers to the core service platform based on the current European portal. The platform will provide a single access point to European cultural heritage content at item level, a set of interface specifications to interact with the infrastructure (search for data, download data), support for the metadata adaptation and ingestion of new content, as well as information on conditions for reuse of the content accessible through the infrastructure.

(g) **Safer internet service infrastructure**: This refers to the platform for acquiring, operating and maintaining shared computing facilities, databases and software tools for the Safer Internet Centres (SICs) in the Member States. Back-office operations to handle reporting of sex abuse content are also included as well as the link with police authorities including international organisations such as Interpol, and when appropriate, the handling of the take down of this content by the relevant web sites. This will be supported by common databases.

(h) **Interoperable cross-border online services**. This refers to platforms, which shall facilitate interoperability and cooperation between Member States in areas of common interest, particularly with a view to improving the functioning of the Single Market, such as eJustice, which will enable the online cross-border access of citizens, businesses, organisations and legal practitioners to legal means/documents and judicial procedures, Online Dispute Resolution (ODR) which will enable online resolution of cross-border disputes between consumers and merchants and Electronic Exchange of Social Security Information (EESSI) which will help social security bodies across the EU exchange information more rapidly and securely.