



2015

Annual Activity Report

**Directorate-General
for Communications
Networks, Content
and Technology**

This Annual Activity Report for the year 2015 covers the activities of the Commission's Directorate-General for Communications Networks, Content and Technology (DG CONNECT), which I took over as Director-General from my predecessor Robert Madelin on 1 September.

DG CONNECT is at the heart of one of the top priorities of President Juncker, namely the establishment of a truly connected Digital Single Market. Consequently, DG CONNECT prepared the Digital Single Market Strategy, which the Commission adopted on 6 May 2015. The Strategy constitutes the main policy framework for the DG until the end of the mandate of this Commission. The Commission already started to implement the DSM strategy in 2015, by adopting a proposal for a Regulation on portability of online services and the Communication "Towards a modern, more European copyright framework".

The adoption of the Telecoms Single Market Regulation on 25 November 2015 was a major achievement for the Digital Single Market, setting up a completely new and fully harmonised regime for Net Neutrality and marking the end of roaming surcharges within the EU by June 2017.

Further on, an important political agreement on the Network and Information Security Directive was reached in December 2015, which will constitute the first EU-wide legislation on cybersecurity and will make the EU online environment more secure.

DG CONNECT also implements key EU programmes which are geared to deliver on the DSM and the Commission's objective to boost jobs, growth and innovation: the ICT part of Research Framework Programme Horizon 2020, the telecommunications strand of the Connecting Europe Facility and the MEDIA subprogramme of Creative Europe.

Part 1 one of the report sets out in detail the policy achievements of the DG and our contribution to boost jobs, growth and investment with digital technologies improving people's lives and increasing the competitiveness of the European economy at large and its key sectors.

Parts 2-4 provide information on the management of resources allocated to the DG, and how we are organised internally. These sections contain information about the balance that we found between trusting and controlling beneficiaries that we fund, and the costs and benefits of the different parts of the grant management operations.

I hope that the report offers a good overview of the various operations of the DG and helps in understanding the added value that information and communication technology can bring to the EU citizens. For more information please visit our website: <https://ec.europa.eu/digital-single-market/dg-connect>

Roberto Viola

Director-General

Table of Contents

INTRODUCTION	4
THE DG IN BRIEF	4
THE YEAR IN BRIEF	5
EXECUTIVE SUMMARY	6
A) POLICY HIGHLIGHTS OF THE YEAR	6
B) KEY PERFORMANCE INDICATORS (5 KPIS)	11
C) KEY CONCLUSIONS ON MANAGEMENT AND INTERNAL CONTROL	11
D) INFORMATION TO THE COMMISSIONER(S)	14
1. KEY RESULTS AND PROGRESS TOWARDS THE ACHIEVEMENT OF GENERAL AND SPECIFIC OBJECTIVES OF THE DG	15
2. MANAGEMENT AND INTERNAL CONTROL	45
2.1 CONTROL RESULTS	45
2.1.1 CONTROL RESULTS FOR BUDGET DIRECTLY IMPLEMENTED BY DG CONNECT	49
2.1.2 BUDGET IMPLEMENTATION TASKS ENTRUSTED TO OTHER DGs AND ENTITIES	62
2.1.3 ESTIMATED OVERALL AMOUNT AT RISK	75
2.2 AUDIT OBSERVATIONS AND RECOMMENDATIONS	77
2.3 ASSESSMENT OF THE EFFECTIVENESS OF THE INTERNAL CONTROL SYSTEMS	84
2.4 CONCLUSIONS AS REGARDS ASSURANCE	87
3. DECLARATION OF ASSURANCE AND RESERVATIONS	90
ANNEXES	94
ANNEX 1: STATEMENT OF THE RESOURCES DIRECTOR	94
ANNEX 2: HUMAN AND FINANCIAL RESOURCES	95
ANNEX 3: DRAFT ANNUAL ACCOUNTS AND FINANCIAL REPORTS	97
ANNEX 4: MATERIALITY CRITERIA	98
ANNEX 5: INTERNAL CONTROL TEMPLATE(S) FOR BUDGET IMPLEMENTATION (ICTs)	102
ANNEX 6: IMPLEMENTATION THROUGH NATIONAL OR INTERNATIONAL PUBLIC-SECTOR BODIES AND BODIES GOVERNED BY PRIVATE LAW WITH A PUBLIC SECTOR MISSION	126
ANNEX 7: N/A	130
ANNEX 8: DECENTRALISED AGENCIES	131
ANNEX 9: EVALUATIONS AND OTHER STUDIES FINALISED OR CANCELLED IN 2015	132
ANNEX 10: DG CONNECT activities covered by crossed sub-delegations in 2015	133
ANNEX 11: N/A	134
ANNEX 12: PERFORMANCE TABLES	135

Introduction

The DG in brief

DG CONNECT operates in a decentralised manner. In 2015 it was structured into nine Directorates placed under the authority of the Director-General and two Deputy Directors-General. Eight Directorates manage the core business of the DG related to Regulation, Strategy & Research and one Directorate has a supporting function. DG CONNECT operates from two sites: Brussels and Luxemburg.

The mission of DG CONNECT is to contribute to EU goals in the Digital Age: human advancement, fairness, jobs and growth. The DG seek to foster innovation, creativity, culture, excellent research and competitive markets as well as a trustable, accessible and positive digital experience for every European citizen.

To help achieve this, DG CONNECT

- funds high-quality ICT research and innovation that delivers imaginative and practical solutions to both technological and societal challenges through the EU research and innovation strategy. DG CONNECT also works with researchers globally;
- promotes greater use of, and public access to a "connected Digital Single Market", for goods and services;
- ensures that people have the right skills and confidence to use the new technologies as part of work and everyday life and that Europe has the same rights, freedoms and protection online as offline;
- works to give everyone in Europe a fast connection to an open Internet;
- supports European innovators, entrepreneurs and start-ups;
- helps Europe's culture, creative and audio-visual sectors to thrive. DG CONNECT supports freedom of expression, freedom of information, freedom and pluralism of the media;
- champions digital government and public services across Member States and within the Commission.

DG CONNECT lives its values as a creative, responsible and open European Union public service. It works on the best available evidence, and it cooperates closely with all its stakeholders, in Europe and globally. Its procedures are fully transparent, and it assumes accountability for its actions. It seeks value for the taxpayer's money in all it does.

DG CONNECT implements EU research policy and supports the development of the European Research Area mainly through the Research Framework Programmes FP7 and Horizon 2020. The Seventh Framework Programme (2007-2013) is being phased out, but still a large portion of the payments appropriations will be used against cost claims until 2016-2017.

DG CONNECT supervised and governed four executive agencies: the Research Executive Agency (REA), the Innovation and Networks Executive Agency (INEA), the Executive Agency for Small and Medium-sized Enterprises (EASME) and the Education, Audiovisual and Culture

Executive Agency (EACEA). It also was in charge of one Joint Undertaking, the Electronic Components and Systems for European Leadership (ECSEL), the Ambient Assisted Living (AAL) Joint Programme, the European Union Agency for Network and Information Security (ENISA) and the Body of European Regulators for Electronic Communications (BEREC and the BEREC Office). DG CONNECT also acted as the "Designated Service" under a delegation agreement with the European Investment Bank (EIB) in the context of the CEF Financial Instruments. For more information please see chapter 2.1.

The year in brief

Organisational developments

As result of re-organisation of Commission services within the context the new College, DG CONNECT welcomed 47 new colleagues working in the areas of copyright, online services and media support programmes at the beginning of 2015.

On 1 September 2015, Deputy Director-General Roberto Viola was appointed Director-General of DG CONNECT, replacing the previous Director-General, Robert Madelin.

The Commission's Synergies and Efficiencies Review proceeded in two strands: a review of horizontal services across the Commission, for which proposals were being drawn up by working groups at Director-General level, and an in-depth review of each Commission service's organisational fitness. In order to better align DG CONNECT's organisational structure to the new political priorities, Roberto Viola announced some proposed organisational chart changes, which are still under discussion with the Commission central services.

Policy context

DG CONNECT's policy context was shaped by the Commission's new framework rules on Better Regulation, adopted in May 2015. Some key elements of that package originated in the DG, notably the concept of "Internet Readiness" proofing of legislation (i.e. making all EU regulation fit for the digital age), the need for more Open Policy-Making, and the importance of modern digital technologies to support better regulation, e.g. in the domain of modelling. Many elements of this work have been carried out in collaboration with other DGs.

Delivering on the request of President Juncker, who made the Digital Single Market one of his top priorities, DG CONNECT came forward with a new strategy for the Digital Single Market in May 2015 (see 'Policy highlights of the year' and section 1 of this report). The adoption of the DSM Strategy triggered a substantial re-prioritisation of tasks and activities within the DG during the year which could not be anticipated when the Management Plan was adopted in early 2015.

In 2015, the new modes of operation of the Horizon 2020 Programme for research and innovation (H2020) were consolidated and introduced improved processes and greater emphasis on impact (see section 1 of this report).

Executive Summary

The Annual Activity Report is a management report of the Director-General of DG CONNECT to the College of Commissioners. It is the main instrument of management accountability within the Commission and constitutes the basis on which the Commission takes its responsibility for the management of resources by reference to the objectives set in the management plan and the efficiency and effectiveness of internal control systems, including an overall assessment of the costs and benefits of controls.

a) Policy highlights of the year

(1) Policy Framework for the Digital Single Market (DSM)

2015 was the starting year of DG CONNECT's new policy framework, the Digital Single Market (DSM) strategy, adopted by the European Commission on 6 May 2015. The Digital Single Market is one of the top priorities of the Juncker Commission. The Strategy aims to make the EU's single market fit for the digital age – tearing down regulatory barriers and supporting content to move from 28 national markets to a single one. It creates a unique opportunity for the EU to be the driving force of the digital revolution and to compete globally on knowledge and innovation.

The DSM strategy consists of three pillars and 16 actions for 2015-2016:

Pillar 1 – Make the DSM work for citizens and businesses;

Pillar 2 – Put in place a regulatory framework to boost investments and competition in digital networks and services;

Pillar 3 – Promote rapid digitalisation of European industries to gain competitiveness and modernise public services.

DG CONNECT's first key deliverable of the DSM strategy was the **proposal for a Regulation on portability of online services**, which aims to ensure that subscribers to online content services can continue using them while temporarily present in another Member State. The proposal was accompanied by a Communication setting out further actions for 2016.

In 2015 DG CONNECT was also working on a legislative proposal to ban unjustified forms of **geoblocking**, which is to be adopted in the first half of 2016 and on an assessment of the **role of online platforms**. An extensive consultation process was carried out, including public consultations on geo-blocking and on platforms, as well as workshops with academic experts and key stakeholders.

Under the second DSM priority, the key achievement in 2015 was the final adoption of the so called **Telecoms Single Market Regulation**, which contains a new and fully harmonised regime for Net Neutrality enshrined bindingly into EU law, and provides for the end of roaming surcharges within the EU by June 2017. DG CONNECT also delivered the first implementing act on roaming under this Regulation and advanced the work on additional deliverables notably a legislative proposal on wholesale roaming and implementing acts on fair use policy and on the sustainability mechanism of roaming. DG CONNECT also launched the in-depth revision of the telecoms regulatory framework as part of the so called REFIT

Review of the fitness-for-purpose of some key pieces of existing legislation.

In addition, DG CONNECT prepared Commission decisions for more than 140 notifications by national regulatory authorities (NRAs) of draft regulatory measures in EU electronic communications markets. While a majority of the draft measures did not raise major concerns with regard to either incompatibility with EU law or the risk to create barriers to the single market, in six instances the Commission initiated extended investigations. With these interventions, and the relevant follow-up, DG CONNECT contributed actively to fostering the internal market for electronic communications in the EU and to making regulatory intervention in markets across Member States more consistent.

As regards the delivery of sufficient and adequate harmonised **spectrum** for the provision of wireless broadband services. The target of 1200 MHz (set in the Radio Spectrum Policy Programme) has not yet been fully achieved, but all necessary actions are underway. In particular, the Commission adopted an Implementing Decision harmonising technical conditions in the 1.5 GHz band. DG CONNECT also undertook an impact assessment and drafted legislative proposals regarding the 700 MHz band and has started discussion on an Implementing Decision for harmonisation of the 2.3 GHz band.

Paving way for a review of the **Audiovisual Media Services Directive (AVMSD)** in 2016, DG CONNECT evaluated the current Directive under the REFIT programme of the Better Regulation Framework, assessed future policy options and held a public consultation.

The political agreement on **Network and Information Security (NIS) Directive** and the launch of a public consultation on instruments to strengthen EU cybersecurity capacities marked two main developments in this field. ENISA (European Network Information Security Agency) continued to fulfil its role in helping the European Commission, the Member States and the industry to address cybersecurity challenges.

Concerning the policy framework for the Digital Single Market, in the realm of its third priority to maximize the growth potential of the Digital Economy, DG CONNECT started working on a Communication on **digitising the European industry**. The initiative aims to reinforce the European industry and its workforce so that they can thrive in the digital era.

Work was also carried out to develop a European **Free Flow of Data** Initiative which will tackle unjustified restrictions on the free movement of data for reasons other than the protection of personal data within the EU. As a follow-up to the 2014 Data-Driven Economy Communication, DG CONNECT organised a series of events and a consultation on the data economy with both industry and the Member States.

Moreover, DG CONNECT's work advanced on the "European **Cloud** Initiative", which includes cloud services certification, contracts, switching of cloud service providers, and on the Research Open Science Cloud.

The Commission adopted all implementing acts for the **Regulation on electronic identification and trust services for electronic transactions (eIDAS)**. Under eIDAS, a Cooperation Network was set up to ensure interoperability and security of notified electronic identifications (eID) means.

In the area of **eHealth**, DG CONNECT built upon the Green Paper on mHealth and facilitated

the development of an industry-led code of conduct on mobile health apps, covering privacy and security (to be finalised in 2016). Furthermore, DG Connect started the preparation of the intermediate evaluation of the eHealth Action Plan 2012–2020. As regards **active and healthy ageing**, the dedicated European Innovation Partnership made progress with the engagement of 44 regions and over 100 good practices. The cooperation in the European Innovation Partnership on **Smart Cities and Communities** made also good progress: 6 Action Clusters were established (of which 3 are led by DG CONNECT) and a Memorandum of Understanding on urban platforms was signed by 28 parties

DG CONNECT has also been preparing for a new **e-Government** Action Plan for 2016-2020 in particular laying down the underlying principles, the policy priorities and the governance, with an emphasis on stakeholder engagement, seeking views from Member States and relevant Commission services.

(2) Horizon 2020

ICT is present in many of the H2020 areas and therefore DG CONNECT's work mirrors that wide range. The activities of 2015 followed the provisions of the H2020 work programme 2014-15, where ICT-related topics were covered as follows:

- Advanced research to uncover radically new technological possibilities and ICT contributions to research and innovation were addressed in the 'Excellent science' part of the work programme, respectively under '**Future and Emerging Technologies**' (FET- and '**European research infrastructures**' ('eInfrastructures');
- Research and innovation activities on generic technologies either driven by industrial roadmaps or through a bottom up approach are addressed in the '**Leadership in enabling and industrial technologies**' (**LEIT**) part of the work programme, under 'Information and communication technologies';
- Multi-disciplinary application-driven research and innovation leveraging ICT to tackle societal challenges are addressed in the different '**Societal challenges**'.

The **FET** part was operating at full speed and was fundamental in pushing the Excellence Science pillar. The two FET Flagship projects, Graphene and Human Brain Project, both made progress. The first call was launched for implementing the Strategic Research Agenda of the European Technology Platform (ETP) for High Performance Computing (ETP4HPC). The pilot on Open Access to research data is ongoing.

In the area of **eInfrastructures**, that seeks to endow Europe with world-class research infrastructures, successful calls were carried out on topics such as High Performance Computing (HPC) and Virtual Research Environments. A Network of HPC Competence Centres for SMEs was launched and the long term Framework Partnership Agreement for GEANT was signed.

As regards the **LEIT** part, highlights include a major boost investment in **semiconductor** manufacturing in Europe with the creation of an "Airbus of Chips" through an investment instrument called an Important Project of Common European Interest (IPCEI), which should be launched 2016. Development of electronic components in Europe also got a boost with a public-private partnership - the **Electronic Components and Systems for European**

Leadership (ECSEL) Joint Undertaking, which awarded R&I grants to projects in micro and nanoelectronics, embedded/cyber physical systems and smart system integration.

Substantial effort was devoted to launching the Focus Area of the **Internet of Things**, to support the up-take of common reference architectures and open platforms across different sectors. The Alliance for Internet of Things Innovation (AIOTI) was launched in March 2015 to develop and support the dialogue among the relevant players.

Work also advanced on creating the foundations for a data economy and to prepare the ground for the new **Big Data Value Public-Private Partnership** with a call on big data research.

Under the **Startup Europe** initiative, DG CONNECT organised a StartupEurope Summit in Berlin and launched a dynamic startup mapping indicating and matching digital start-ups Europe wide.

ICT is an important means to address the EU's **societal challenges**, such as health, demographic change and well-being; secure, clean and efficient energy (smart cities); smart, green and integrated transport (automation in road transport); climate action, environment, resource efficiency and raw materials (waste and water management); Europe in changing world; inclusive, innovative and reflective societies (Open Government, youth), as well as trust and security (ICT security, cryptograph, privacy etc.), which are set out in section 1. One good example of the technological and societal challenges addressed is the WITDOM project, which will develop innovative security and privacy enhancing techniques in order to enable the use of cloud computing in sensitive areas such as eHealth and financial services.

Overall, the **ICT 2015 event in Lisbon** on 20-22 October showed European ICT is capable of generating a huge interest across the Research and Innovation constituency, with more than 6,000 participants from the whole world.

(3) Connecting Europe Facility (CEF)

CEF supports trans-European networks and infrastructures in the sectors of transport, telecommunications and energy. DG CONNECT's priorities in this context are **broadband networks** and **digital service infrastructures (DSI)** which are key enabler of the DSM. DG CONNECT's efforts continued to focus on broadband infrastructure and on facilitating investment. Examples of the DSIs having received support are the Pan-European Data Portal and the Safer Internet DSI.

The **Pan-European Data Portal**, giving access to datasets generated by EU Member States public administrations, was publicly opened in November 2015. The initiative promotes wider dissemination and re-use of data made available under the Public Sector Information Directive. It contributes to improving the efficiency of public services thanks to cross-sector sharing of data, while the economy can benefit from an easier access to information in turn contributing to the development of innovative services and the creation of new business models. In general, society benefits from information that is more transparent and accessible.

Making the internet a trusted environment for children was supported with a launch of the **Safer Internet DSI** for services that advance this goal.

(4) MEDIA

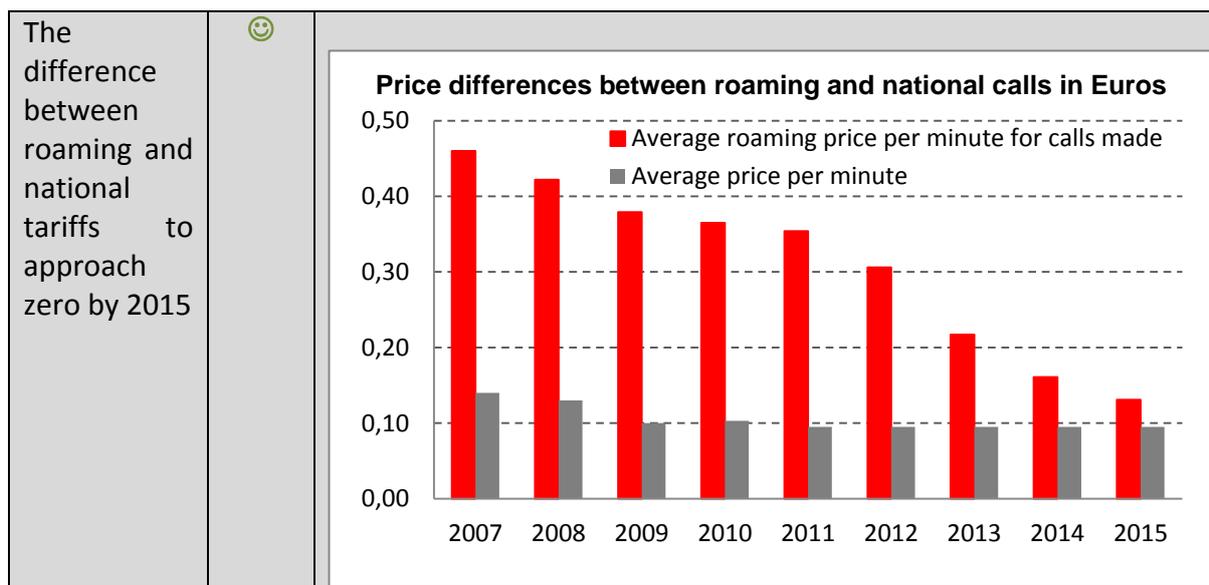
In the area of **media freedom and pluralism**, DG CONNECT closely cooperated with other services, in particular DG Justice, and funded several independent projects with the support of the European Parliament including the establishment of the European Centre for Press and Media Freedom, and the continuation of mapping media freedom platform by the Index on Censorship and the Media Pluralism Monitor.

The **Creative Europe MEDIA programme** continued to strengthen access to content by supporting industrial capacity to develop and distribute European works across borders. Ongoing programmes, such as Europa Cinemas, continued to make a significant contribution to the theatrical distribution of non-national European films.

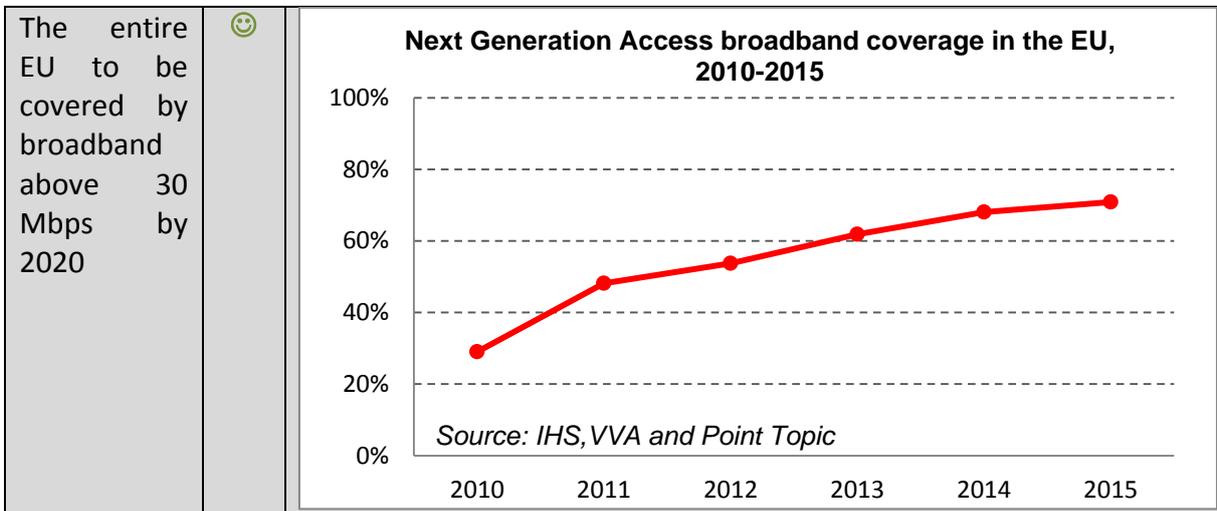
b) Key Performance Indicators (5 KPIs)

This subsection shows the five KPIs most relevant for DG CONNECT as set out in the Management Plan 2015, i.e. the indicators which measure the most critical aspects of its performance and gives useful insights into its most significant achievements. The fifth KPI is control related, reflecting sound financial management. Progress made in 2015 on the KPIs can be found in the annual [Digital Agenda Scoreboard](#), which assesses progress made with respect to the targets set out in the Digital Agenda for Europe.

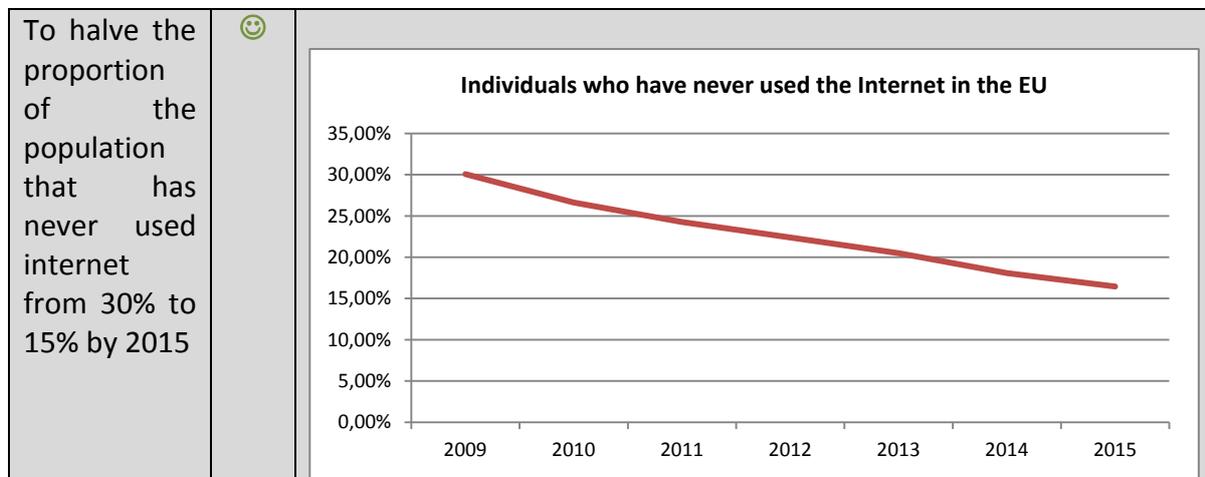
Result / Impact indicator	Trend	Target (or milestones)
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The EU average for outgoing roaming calls was 13,1 €/min, EU SMS averages was 5,4 €/SMS and for data roaming services the EU average was close to 5€/Mb in the first quarter of 2015. The price difference between roaming and national calls is decreasing rapidly. The target has not been met by 2015. However, given slow initial progress, legislative action has been taken and the target will now be reached in 2017.

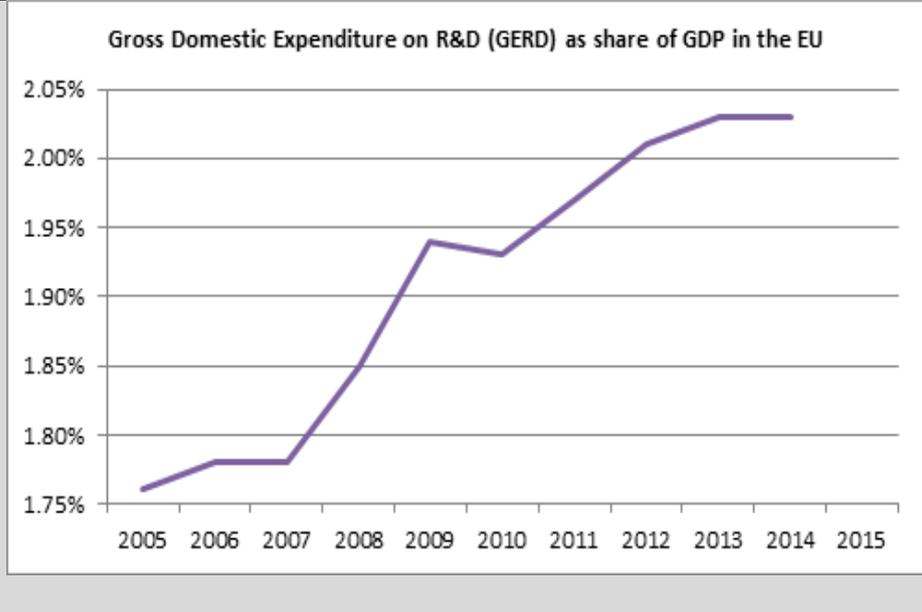


Next Generation Access: the share of households already covered stands at 71% (as of June 2015) which is 3 percentage points higher than in December 2014. Progress so far has been good, but it remains a great challenge to achieve 100% by 2020, since the cost for rural areas is high.



The proportion of the population that never used internet decreased from 18% in 2014 to 16% in 2015. While the target has not been strictly met, the difference between the target and the result is within the statistical margins of error of the data collection. Moreover, the tendency is very clear and the target will most likely also be mathematically met next year.

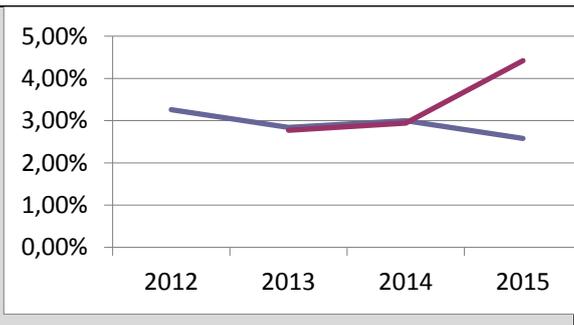
3% of the EU's GDP should be invested in R&D



2008: 1,85% - 2009: 1,94% - 2010: 1,93% - 2011: 1,97% - 2012: 2,01% - 2013: 2,021%

The 2014 data reveal that 2.03% of the GDP were invested in R&D. The latest data for 2015 are not yet available. The target will most likely not be met by 2020, due mostly to the much longer and deeper economic crisis than was anticipated. This crisis has depleted Member States' funding possibilities, and it is actually quite a success to see that spending on R&D has gone up at all, even if not as much as planned.

FP7 and CIP ex-post control residual error rate



2012: FP7: 3,26%
 2013: FP7: 2,84%, CIP: 2,77% (limited sample)
 2014: FP7: expected residual error rate: 3%, CIP: 2,94% (limited sample)
 2015: FP7: 2.58%, CIP: 4.42%

For the Seventh Research Framework Programme (FP7), DG CONNECT expects a residual error rate of 2.58%, which is above the 2% materiality threshold and therefore issues a reservation as in the past years and in line with similar reservations expressed by the other DGs of the Research Family. The residual error rate for the Competitiveness and Innovation Programme (CIP) ICT PSP amounts to 4,42%. DG CONNECT expects that the residual error rate will not decrease under the materiality threshold at the end of the programme and

therefore expresses a reservation on the legality and regularity of these payments as in last year's annual activity report.

Both CIP and FP7 have a similar level of representative error rate (4,47% for FP7 and 4,50% for CIP) which is explained by the similarity of the control systems in both programmes. However, the residual error rate for FP7 is lower than the one for CIP because the effective 'cleaning effect' of the extension of audit findings process in FP7 allows for the correction of systemic errors of a beneficiary which is detected by an audit performed by any of the DGs or executive agencies implementing FP7 whereas the extension of audit findings in CIP ICT PSP is limited to other participations of the beneficiaries audited by DG CONNECT.

c) Key conclusions on Management and Internal control

In accordance with the governance statement of the European Commission, DG CONNECT's staff conducts its operations in compliance with the applicable laws and regulations, working in an open and transparent manner and meeting the expected high level of professional and ethical standards.

The Commission has adopted a set of internal control principles, based on international good practice, aimed to ensure the achievement of policy and operational objectives. The financial regulation requires that the organisational structure and the internal control systems used for the implementation of the budget are set up in accordance with these standards. DG CONNECT has assessed the internal control systems during the reporting year and has concluded that the internal control principles are implemented and function as intended. Please see section 2.3. for further details.

In addition, DG CONNECT has systematically examined the available control results and indicators, including those aimed to supervise entities to which it has entrusted budget implementation tasks, as well as the observations and recommendations issued by internal auditors and the European Court of Auditors. These elements have been assessed to determine their impact on the management's assurance as regards the achievement of control objectives. Please see Section 2 for further details.

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director-General, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance albeit qualified by a reservation concerning the rate of residual errors with regard to the accuracy of cost claims in the 7th Research Framework Programme's and the Competitiveness and Innovation Framework Programme's grant agreements.

d) Information to the Commissioner

The main elements of this report and assurance declaration, including the reservations envisaged, have been brought to the attention of Commissioner Günther H. Oettinger, responsible for Digital Economy and Society.

1. Key results and progress towards the achievement of general and specific objectives of the DG

DG CONNECT contributed mainly to two of President Juncker's priorities, namely the Commission general objectives "A Connected Digital Single Market" and "A New Boost for Jobs, Growth and Investment".

Monitoring of Member States' progress in digital was enhanced through the introduction of the Digital Economy and Society Index (DESI)², which was presented in February 2015, and the European Semester process.

(1) Policy Framework for the Digital Single Market (DSM)

The **Digital Single Market (DSM) Strategy**, adopted by the Commission on 6 May 2015, aims to make the EU's single market fit for the digital age – tearing down regulatory barriers and supporting content to move from 28 national markets to a single one. It creates a unique opportunity for the EU to be the driving force of the digital revolution and to compete globally on knowledge and innovation.

The DSM Strategy consists of three main pillars and 16 concrete actions which will be implemented in the timeframe 2015-2016:

Pillar 1 – Make the DSM work for citizens and businesses;

Pillar 2 – Put in place a regulatory framework to boost investments and competition in digital networks and services;

Pillar 3 – Promote rapid digitalisation of European industries to gain competitiveness and modernise public services.

DG CONNECT has already started to deliver on the DSM Strategy as set out below.

Portability and copyright

The DSM Strategy outlined several copyright areas for policy action, in particular:

- ensuring portability and facilitating cross-border access to online content services;
- harmonising copyright exceptions regarding certain activities of libraries, research and education;
- improving enforcement of copyright and looking into the role of online intermediaries;
- launching a review of the Satellite and Cable Directive, i.e. the EU rules applicable to copyright licensing in relation to distribution of TV programmes over satellite and cable networks.

² <https://ec.europa.eu/digital-single-market/en/desi>

On 9 December 2015 the Commission presented a legislative **proposal for the Regulation on portability of online services**³. The Regulation aims to ensure that subscribers to online content services can continue using them while temporarily present in another Member State.

The same day, the Commission also adopted the **Communication "Towards a modern, more European copyright framework"**⁴, which sets out a comprehensive EU copyright modernisation plan covering political objectives, areas of action with concrete measures as well as the timeline for 2016. The objectives for the legislative proposals to be tabled are:

- allowing for wider online availability of content across the EU, including via the possible extension of some of the provisions of the Satellite and Cable Directive;
- modernising the EU framework of exceptions and limitations, focusing in particular on those exceptions and limitations which are key for the functioning of the DSM and the pursuit of public policy objectives (such as those in the area of education, research - including text and data mining - and access to knowledge); and
- achieving a well-functioning copyright market place, for example as regards the role of online intermediaries when they distribute copyright-protected content.

Geo-blocking

DG CONNECT has been working on a legislative proposal that aims at banning unjustified forms of geo-blocking (i.e. geographically-based discrimination). In addition, the Commission has announced legislative action to address general discrimination based on place of residence or nationality. Removing these forms of discrimination and succeeding in bringing companies to change their current behaviour would yield significant benefits for European consumers (such as improved access to information and goods, or wider choice).

In September 2015, the Commission launched a public consultation on geo-blocking and other geographically-based restrictions when shopping and accessing information in the EU. 433 responses were received from 28 Member States and non-EU countries. Overall, a majority of respondents from both the consumer and company side agree that consumers should be able to purchase and access services from everywhere in the EU.

Telecom Single Market (TSM) Regulation

The adoption of the so called TSM Regulation⁵ on 25 November 2015 is a major achievement

³ Proposal for a Regulation of the European Parliament and of the Council on ensuring the cross-border portability of online content services in the internal market, COM(2015)627 final, 9.12.2015.

⁴ Towards a modern, more European copyright framework, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, COM(2015) 626 final, 9.12.2015.

⁵ Regulation (EU) 2015/2120 of the European Parliament and of the Council of 25 November 2015 laying down measures concerning open internet access and amending Directive 2001/22/EC on universal service and users' rights relating to electronic communications networks and services and Regulation (EU) No 531/2012 on roaming on public mobile

for the DSM. It contains a completely new and fully harmonised regime for Net Neutrality enshrined bindingly in EU law and the proclamation of the end of Roaming surcharges within the EU by June 2017.

DG CONNECT also delivered the first implementing act on roaming under this Regulation and advanced the work on further deliverables, namely a legislative proposal on wholesale roaming, implementing acts on fair use policy and on the sustainability mechanism of roaming, and net neutrality guidelines to be issued by BEREC).

Moreover, the Stakeholder Engagement Strategy for the 2014 Directive on measures to reduce the cost of deploying high-speed electronic communications networks (2014/61/EU) has been successfully implemented.

Telecoms

DG CONNECT launched the in-depth evaluation and review of the telecoms regulatory framework under pillar two of the DSM strategy. It engaged in expert debates with industry, regulators, users and investment communities, launched a public consultation and held a dedicated public hearing. Following the results of the evaluation and the subsequent impact assessment, the Commission will complement the regulatory environment with new legislative and non-legislative initiatives.

As part of its ongoing implementation and monitoring work, DG CONNECT issued its annual Telecoms Implementation Report for the 2009 Telecoms Package, which is a valuable tool for Member States, stakeholders and DG CONNECT's policy work. DG CONNECT developed a new enforcement strategy setting priorities, consistent enforcement actions and regular monitoring within the DG, including the coordination of enforcement measures of the Member States in the context of the Mobile Satellite Services (MSS) initiative.

DG CONNECT prepared Commission decisions for more than 140 notifications by national regulatory authorities (NRAs) of draft regulatory measures in EU electronic communications markets, under Articles 7 and 7a of the Framework Directive. In six instances the Commission initiated extended investigations, leading to withdrawals of notifications by NRAs in three cases (for fixed call termination, local access and broadcasting transmission markets) and, in three cases, to so-called Article 7a Recommendations by the Commission, carrying specific obligations for NRAs (for mobile and fixed call termination markets). In this way DG CONNECT contributed to fostering the internal market for electronic communications and making regulatory intervention in markets across Member States more consistent.

More than 60% of all **electronic communications markets** (and notably of all access markets) which were subject to economic regulation in 2003 have been deregulated over the past 12 years in the EU. In 2015 alone, nearly 10% of all electronic communications markets (and of all access markets) still regulated at the end of 2014 could be further deregulated, in more than eight out of ten cases fully. Thus, DG CONNECT steered NRAs towards focusing regulatory intervention where it is most needed (i.e. persisting bottlenecks) and to allow for

communications networks within the Union, O.J. L310/1, 26.11.2015.

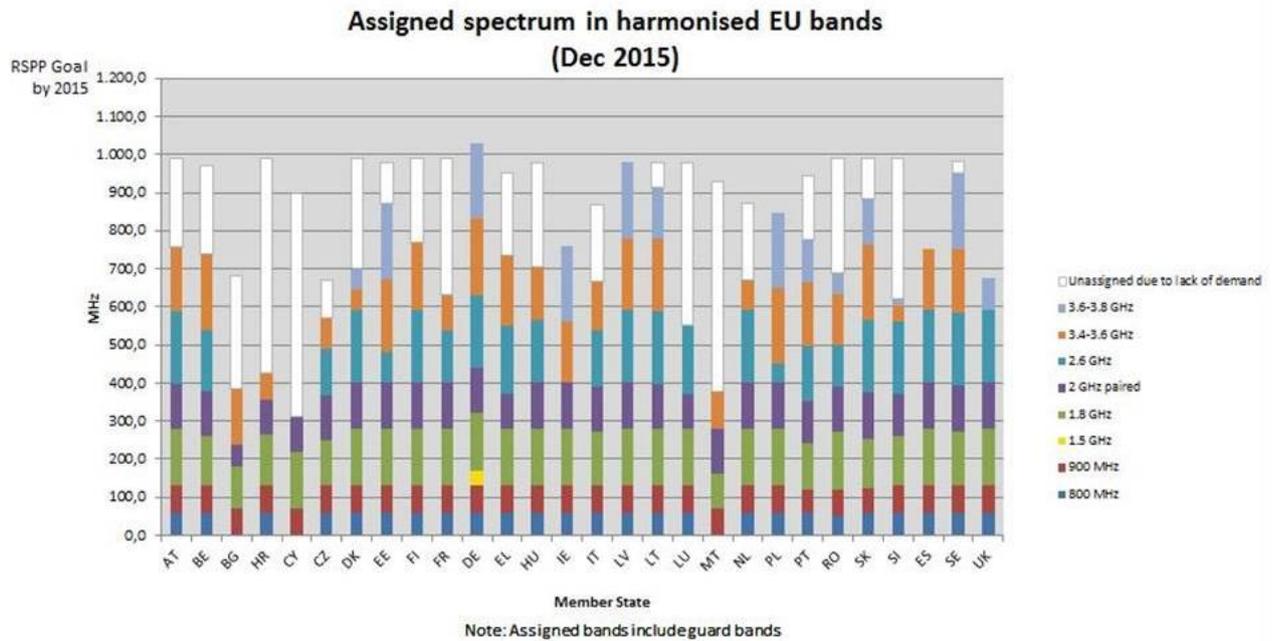
commercial agreements and market developments to thrive and take over where possible, generating in turn efficient investment incentives and enabling that the right make-or-buy decisions can be made by all operators, to the benefit of all citizens.

Spectrum

As regards delivery of sufficient and adequate harmonised spectrum for the provision of wireless broadband services, the target of 1200 MHz (set in the Radio Spectrum Policy Programme, RSPP) has not yet been fully achieved, but all necessary actions are already underway. In particular, the Commission adopted an Implementing Decision harmonising technical conditions in the 1.5 GHz band. DG CONNECT also undertook an impact assessment and drafted legislative proposals regarding the 700 MHz band and it has started discussion on an Implementing Decision for harmonisation of the 2.3 GHz band. In terms of actual assignments of spectrum, we have ensured implementation of relevant spectrum bands at national level, leading to an average amount of licensed spectrum for wireless broadband of approximately 700 MHz in each Member State and the insight that there is still a lack of demand for some of the frequency bands that have been harmonised (currently 1030 MHz in total). The results of DG CONNECT's work on wireless broadband are summarised in graph below.

Furthermore, DG CONNECT prepared a proposal for a Council decision on the position to be adopted, on behalf of the European Union, in the International Telecommunications Union (ITU) World Radio communication Conference 2015 (WRC-15). The Council decided to lay down the position in the form of Council Conclusions instead of a Council Decision, in breach of EU law. Spectrum topics discussed at these conferences touch upon a wide range of EU policies (telecommunications, transport, environment, space). The results of the conference were consistent with EU policies, but there was inconsistent behaviour by several Member States. The Commission launched an action for annulment of the Council Conclusions before the Court at the end of 2015.

Graph: Harmonised spectrum bands assigned for mobile broadband in the European Union



Audio-visual Media Services Directive (AVMSD)

The DSM strategy announces a review of the AVMSD. In 2015, DG CONNECT carried out the evaluation of the current Directive under the REFIT programme of the Better Regulation Framework and, in parallel, the Impact Assessment of policy options for the future of the Directive. A Public consultation conducted between 6 July and 30 September fed into both exercises along with a number of procured studies. The preliminary trends of the public consultation show a convergence of views regarding the need for possible changes of the current rules on the scope of application of the Directive as well as on the independence of national regulators. They also show support for maintaining the status quo as regards the country of origin principle; must-carry/findability; accessibility for persons with disabilities; listed events, short news reports and right of reply. No clear consensus has emerged on commercial communications, protection of minors and promotion of European works.

DG CONNECT is responsible for enforcing the AVMSD and monitors the implementation of the Directive in Member States. The main cases concerned the freedoms of reception and retransmission and the procedure to be followed in cases of derogation from these principles. DG CONNECT dealt with one notified list of events of major importance to be broadcast on free-to-air TV to allow the public of the Member State concerned to follow these events. Moreover, the DG prepared a Commission decision regarding measures derogating from the freedom of reception in relation to a Russian language channel.

Trust and security

The political agreement of 7 December 2015 on the **Network and Information Security (NIS) Directive** (adoption foreseen by July 2016) and the launch of a public consultation on a public-private partnership and other possible measures to strengthen EU cybersecurity capacities, marked two cornerstones for the future development of EU policy making in this field. The NIS Directive will improve cybersecurity capabilities in Member States and the latter's cooperation on cybersecurity and require operators of essential services in the

energy, transport, banking and healthcare sectors, and providers of key digital services like search engines and cloud computing, to take appropriate security measures and report incidents to the national authorities. **ENISA** (European Network Information Security Agency) continued supporting the Commission, the Member States and the industry to address, respond and especially to prevent NIS problems.

Cyberspace is a backbone of digital society & economic growth

315 million Europeans use the Internet everyday



across all areas of the digital society



ehealth



e-commerce



smart mobility



energy
(e.g. smart grids)



finance
(e.g. e-banking)



Internet of Things

Cybersecurity incidents may

disrupt the supply of essential services such as



water



healthcare



electricity



mobile services

Undermine trust in digital services & products

only 22% of Europeans



have **full trust** in companies such as **search engines, social networking sites & e-mail services**

Only 38% of Europeans



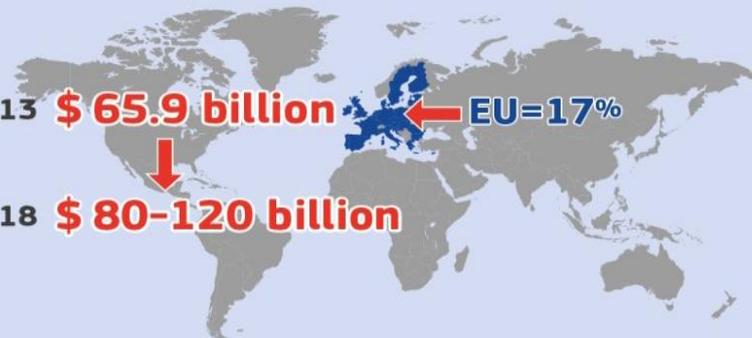
feel **confident** about **online purchasing** from another EU Member State

Cybersecurity is an economic opportunity for the EU

The cybersecurity global market

2013 \$ 65.9 billion
 ↓
 2018 \$ 80-120 billion

EU=17%



A key obstacle: the fragmentation of the EU cybersecurity market & industry

While cybersecurity threats (& opportunities) are borderless by nature, the EU cybersecurity market is highly fragmented due to



development of solutions historically driven by governmental needs



existence of **different Network Information Security policies** across Member States



lack of **interoperability** for cross-border purchase



lack of **trust** for cross-border purchase

The impact of market fragmentation

For EU companies



it's **hard to compete** on the **European & global level**



smaller companies are more subject to **merger & acquisition** by **non-EU large companies**



outflow of know-how & specialists looking for career opportunities beyond Europe



difficulties to **access innovative, competitive & user-friendly technology** that takes into account **European rules & values**

Source: <https://ec.europa.eu/digital-single-market/en/cybersecurity-industry>

Digitising of European Industry

In 2015, Commissioner Oettinger held two roundtables with high-level representatives from European companies to discuss a strategy for digitising the European Industry and gather feedback.

Skills

To address the phenomenon of skills gaps and mismatches related to the digital transformation, DG CONNECT continued its initiatives on digital skills training such as the Grand Coalition for Digital Jobs, including a better dialogue with Member States.

Free Flow of Data and Cloud Initiatives

One of the DSM deliverables is to propose in 2016 a European free flow of data initiative that tackles unjustified restrictions on the free movement of data for reasons other than the protection of personal data within the EU, and unjustified restrictions on the location of data for storage or processing purposes. The emerging issues of ownership, (re)usability and access to data, and liability, especially in relation to the Internet of Things, can result in a lack of predictability or legal uncertainty. The assessment of the impact of these issues on the digital economy was initiated in 2015. In this context, an Inception Impact Assessment Report on the free flow of data initiative was completed in 2015, though not yet published. Work on the European Cloud initiative including cloud services certification, contracts, switching of cloud service providers started in the summer of 2015, matured by the end of the year and will lead to the adoption of a Commission Communication in April 2016.

Cloud for public administration

DG CONNECT's activities aimed to support the public sector in moving towards the procurement of secure, reliable and cost-effective cloud computing services, whilst avoiding lock-in. Topics and budget were allocated in the H2020 LEIT ICT Work Programme 2015 for innovation related to cloud uptake in the public sector used notably the H2020 instruments "public procurement of innovation" and "pre-commercial procurement". The Trusted Cloud Europe report from the Steering Board of the European Cloud Partnership provided policy advice and recommendations for public sector cloud uptake of cloud based IT services. These recommendations were instrumental in shaping DSM actions, in particular in the European Cloud Initiative, which specifically refers to a research Open Science Cloud.

DG CONNECT helped DG DIGIT to deliver the European Commission's first framework contract for EU Institutions to procure cloud-based IT services.

Implementation of the European cloud computing strategy of September 2012

All the actions put forward in the Communication "Unleashing the potential of cloud computing in Europe" (COM(2012) 529) have been implemented, except for the code of conduct on data protection applicable to cloud providers, a self -and co-regulatory initiative facilitated by the Commission, drafted by stakeholders. The Commission services facilitated a Working Group of the Cloud Select Industry Group to work towards the preparation of a

voluntary Code of Conduct. DG CONNECT and DG JUST will continue to facilitate these efforts with the industry in order to finalise the Code along the lines of the guidance of the Article 29 Data Protection Working Party⁶.

Standardisation

The DSM Communication announced the launch of an integrated standardisation plan to identify and define key priorities for standardisation with a focus on the technologies and domains that are deemed to be critical to the DSM, to which the European Council had responded positively.

Further to the consultation of the multi stakeholders' platform (a standardisation expert group), a public consultation was launched, which gathered views from all relevant stakeholder groups. The vast majority of respondents considered that it was important to set priorities and timetables for ICT standards at EU level; it was also proposed that standardisation be accompanied by other measures, such as a) the definition of a clear political framework for competition and interoperability for digital products and services, b) the establishment of objectives, and c) support for SMEs and research centres to participate in standardisation.

DG CONNECT progressed on the definition of a comprehensive **standardisation roadmap** identifying the main 5G standardisation bodies. The 5G PPP pre-standardisation Working Group promoted European views in the 3G PP Technical Specifications Group Radio Access Network. Intense international dialogue, notably with South Korea, Japan and China (e.g. in the margins of the ICT 2015 Lisbon conference) was key to understand the positioning of international partners for what concerns 5G standardisation. Allowing the Commission Services to elaborate a position on the development in 3G PP, this contribution – putting emphasis on those 5G use cases of main interest in the context of our policy for digitizing the European economy – has been very well received by the European operators' community.

Networks connectivity: 5G policy and research agendas

5G will provide a key contribution to the DSM, as a network platform underpinning the digitising of the economy with its capability to adapt to the multiplicity of requirements and innovative business models from key vertical industrial sectors like automotive, energy, health and smart factories. At the Mobile World Congress in March 2015, Commissioner Oettinger announced the landmark "EU vision for 5G". As a follow up, the 5GPPP initiated a strategic process to reach out to potential vertical industries that could make use of the 5G connectivity, and to support the development of new use cases and new business models.

DG CONNECT pushed forward the strategic cooperation with Japan, South Korea, Brazil, China, Taiwan and USA, either through structured ICT policy dialogues or R&D cooperation.

⁶ The Article 29 Data Protection Working Party has an advisory status and acts independently. It was set up under the Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the [processing of personal data](#) and on the free movement of such data.

The particular focus was put on 5G whereas cloud computing, Internet of Things and FI-WARE have seen an acceleration of the global momentum. Most importantly, joint declarations on 5G have been signed with Japan and China and preparations to sign a cooperation agreement with Brazil were stepped up. Regarding the USA, cooperation with the US Federal Communications Commission (FCC) helped to prepare the ground for the 2015 World Radio-communication conference and to support future cooperation on 5G. A continuing policy dialogue is established with the FCC at working level in view of aligning positions on 5G.

E-government

DG CONNECT has been preparing for a new e-Government Action Plan for 2016-2020 in particular laying down the underlying principles, the policy priorities and the governance, with an emphasis on stakeholder engagement, seeking views from Member States and relevant Commission services. DG CONNECT held three workshops with external stakeholders and launched an on-line consultation seeking views from the public, producing over 250 replies by the end of 2015. Overall, there is widespread agreement from both internal and external stakeholders on the principles, policy priorities and new governance structures which encourage stakeholder involvement in the design and implementation of the new Action Plan.

The mid-term evaluation of the eGovernment Action Plan 2011-2015 showed that the latter had a positive impact on the development of eGovernment at the European and Member States' level even if progress has been better in some areas compared to others. This type of Action Plan can be a perfect 'mobilizer' instrument in order to help the Commission and the Member States coordinating their actions. In a rapidly changing world with very fast evolving technology, a static five-year period seems too long for an Action Plan and the evaluation therefore recommends a rolling plan with a bi-yearly cycle of review and adaptation to keep track of change and ensure the relevance of the policy priorities and individual actions.

Regulation on electronic identification and trust services for electronic transactions in the internal market (eIDAS)

[All 8 implementing acts](#) for the eIDAS Regulation were adopted on time and a Cooperation Network was set up to ensure interoperability and security of notified electronic identifications (eID) means. 19 Member States have expressed the intention to notify their eID schemes. DG CONNECT cooperates with other DGs (an eIDAS interest group has also been set up to this end) so that legislation and initiatives can benefit from integrated and cross-border use of notified eIDs and trust services to support digital transformation.

eIDAS Regulation N°910/2014



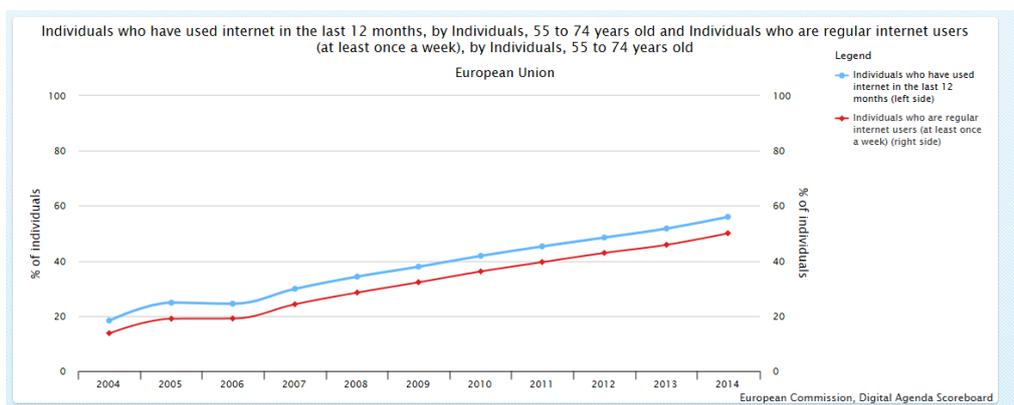
eHealth

In the context of an intermediate evaluation of the eHealth Action Plan 2012-2020, DG CONNECT started preparations to launch a public consultation in 2016. After analysing the results of this consultation, the next steps to take for eHealth in the EU until 2020 will be determined.

The annual eHealth Week (Riga, 11-13 May 2015) was focussing on the role of ICT for patient empowerment through a range of parallel sessions, side meetings, matchmaking opportunities and a state of the art exhibition of eHealth solutions and projects including country pavilions.

Following the 2014 public consultation on the Green Paper on mHealth, DG CONNECT facilitated the development of an industry-led code of conduct on mobile health apps, covering privacy and security. The draft document was presented for wider stakeholder consultation in the beginning of December.

Active and Healthy Ageing



The internet access and activity of people over 55 years showed a stable increase of around 10%.

Collaboration across Member States and regions has been determinant to scale up ICT innovation across different areas of health and social care delivery. The use of digital solutions to support adherence to medication, frailty monitoring and fall detection and prevention continue to top the areas that bring the more visible benefits to EU citizens and to society.

Main achievements of the collaborative activities of the European Innovation Partnership:

- 44 regions supporting the scaling up and replication of integrated care programmes supported by ICT enabled tools & over 100 good practices on ICT-enabled integrated care ready for replication have developed since 2013;
- 18 regional ministers co-signed a memorandum of understanding committing to invest in ICT-enabled innovation for active and healthy ageing in the coming years;
- Action Group on Fall prevention common repository: 55 innovative ICT-enabled solutions (40 for falls detection and 15 for falls prevention) ready for market exploitation;
- A Europe-wide training programme covering 55 European cities from 35 regions and 9 different Member States qualified 92 "Cascade Trainers" specialised on ICT enabled fall-prevention solutions.

Smart cities and connected and automated driving

The cooperation in the **European Innovation Partnership on Smart Cities and Communities** made good progress: 6 Action Clusters were established (of which 3 led by DG CONNECT). The Memorandum of Understanding on urban platforms was signed by 28 parties; two working groups (industry / public sector) started their work.

Since summer 2015 there has been progress in activities on connected and automated driving with closer multi sector cooperation starting to strengthen European industries' role in global competition in telecommunication and mobility markets.

In the energy field, we can highlight the adoption of an M2M standard by ETSI that allows appliances to communicate on energy-related matters. In addition, a set of models for handling energy consumption data has been agreed by Distribution System Operators.

2014 Data-Driven Economy Communication

As a follow-up to the 2014 Data-Driven Economy Communication, DG CONNECT organised a series of workshops and consultations on the data economy with both industry and the Member States.

Platforms

Online platforms play an increasingly important role in social and economic life: they enable consumers to find and exchange vast amounts of digital content, they allow businesses to exploit the advantages of e-commerce and they create significant additional employment.

The DSM strategy called for a comprehensive assessment of the role of these online platforms, which assessment covers issues such as (i) transparency e.g. in search results (involving paid-for links and/or advertisement), (ii) online platforms' usage of the information they collect, (iii) relations between platforms and suppliers, (iv) constraints on the ability of individuals and businesses to move from one online platform to another, and (v) how best to tackle illegal content on the Internet.

The Commission has launched a public consultation on the regulatory environment for online platforms, online intermediaries, data and cloud computing and the collaborative economy. More than 11000 contributions were received from 28 Member States and non-EU countries. The Commission will publish a summarizing report of the results of the public consultation by mid-2016.

DG CONNECT also signed an administrative agreement with the Institute for Prospective Technological Studies of the Joint Research Centre to study the role of online platforms; a first set of deliverables will be available by mid-2016.

Internet of Things

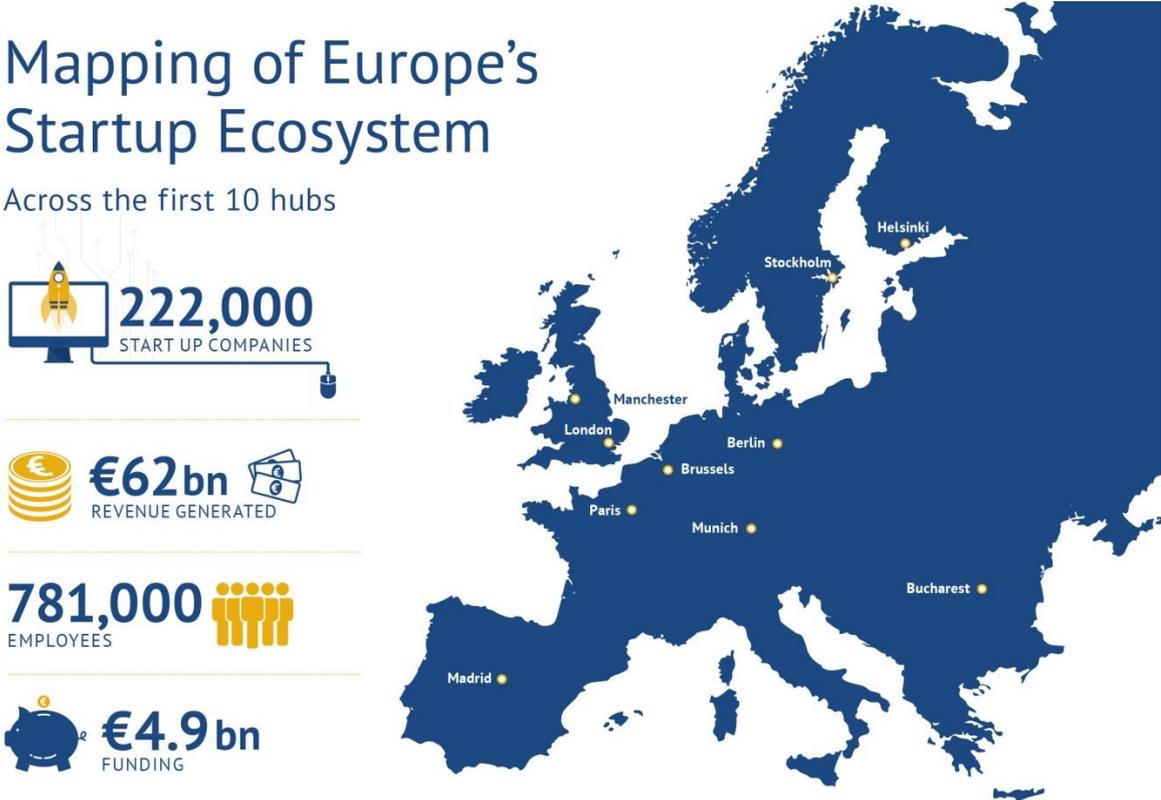
The Internet of Things (IoT) is the next step of disruptive innovation, representing the next major economic and societal development. IoT has a strategic dimension within the DSM, as a vector of a comprehensive digitization of our economies and societies.

The Alliance for Internet of Things Innovation (AIOTI) was launched by Commissioner Oettinger in March 2015 to develop and support the dialogue and interaction among the

various IoT players. AIOTI was crucial in the preparation of future IoT research as well as innovation and standardisation policies. The Alliance also set the goal to spearhead some markets so that Europe can try to take the lead globally.

Startup Europe

DG CONNECT launched a dynamic start-up mapping indicating and matching digital start-ups Europe wide. Further activities were the Startup Europe Summit in Berlin, a week-long European mission by policy actors and stakeholders to Silicon Valley, specific policy outcomes such as on VAT rules for start-ups, and supporting other Commission policies to become more aware of the needs of startup "Understanding the dynamics of the European startup ecosystem is important for policy making. www.startuphubs.eu investigates the major European startup hubs in terms of size and impact using data from company registries and other reporting tools. This gives real-time insight into the startup ecosystem. For instance the 222.000 startups mapped so far employ on average 4 people, or the funding these companies received is a cumulative Euro 4.9 billion, i.e. much less than compared with the US."



International matters

The Commission and the EU delegations have successfully led the coordination of Member States in the negotiations for the World Summit on the Information Society (WSIS)+10 review ensuring one EU position and considerable success in attaining support for the multi-stakeholder model, a new mandate for the IGF and renewed impetus to define the role of public authorities in the multistakeholder context.

The Commission has included representatives of the European technical community, industry and civil society in High Level Group on Internet Governance meetings with Member States, in EU coordination meetings during Internet Corporation for Assigned Names and Numbers (ICANN) and other related meetings, with a view to facilitating and maintaining an open and constructive dialogue and mutual understanding.

The Commission engages with a diverse set of European internet stakeholders, to foster improvements to the outcomes of the Internet Governance Forum (IGF) and the European dialogue on Internet Governance (EuroDIG), for better exchanges of best practices, as well as in the context of its discussions with global partners on Internet Governance. The Commission provided financial support to the June 2015 EuroDIG event, in order to further improve Europe's contribution to the global Internet Governance Forum in November 2015. The Commission has provided an annual direct grant to the IGF secretariat since the IGF's establishment and encourages other European stakeholders to more actively participate in funding the IGF secretariat. The Commission has approved spending to continue financing the IGF secretariat in 2016 and introduced financial support for the ICANN's GAC secretariat. The Commission launched the technical development of the Global Internet Policy Observatory (GIPO) as a resource for the global community. A discussion platform has been set up to inform and engage stakeholders.

The Progress Report⁷ on the Communication on "Internet Governance and Policy"⁸ describes in detail all activities performed to promote the EU position on Internet Governance.

Following the renewal of the contract with EURid (the .eu Registry) in 2014, the Commission Regulation (EU) No 516/2015⁹ introduced technical checks to prevent visual confusion between registered .eu domain names and to allow the Registry to introduce extra characters and to update the list of domain names reserved by the EU, Iceland, Liechtenstein and Norway. The Commission drew up a report to the legislator on the implementation, effectiveness and functioning of the .eu Top Level Domain for the period 1 April 2013 to 31 March 2015¹⁰ and continued to exercise its supervisory role by means of reviews of audit remarks, financial reports, progress reports, budget proposals, and strategy and marketing plans, as well as regular meetings with EURid. In this context the Commission urged and supported EURid to engage regularly and proactively in the Internet ecosystem.

2) Horizon 2020

Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly

⁷ Commission Staff Working Document "Progress Report on the Communication on "Internet Policy and Governance - Europe's role in shaping the future of Internet Governance", SWD(2015) 296 final, 10.12.2015.

⁸ Communication from the Commission to the European Parliament, the Council, the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions "Internet Policy and Governance Europe's role in shaping the future of Internet Governance", COM(2014)072 final.

⁹ Commission Regulation (EU) 2015/516 of 26 March 2015 amending Regulation (EC) No 874/2004 laying down public policy rules concerning the implementation and functions of the .eu Top Level Domain and the principles governing Registration, OJ L 82, p. 14 of 27.3.2015.

¹⁰ Report from the Commission to the European Parliament and the Council on the implementation, functioning and effectiveness of the .eu Top-Level Domain, COM(2015) 680 final, 18.12.2015.

80 BEUR available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. As a generic technology, ICT is present in many of the H2020 areas: Excellent Science, Industrial Leadership and Societal Challenges. ICT actions allow covering the full innovation chain, from basic research to market uptake.

There is compelling evidence that Member States acting alone would not be able to make the required public intervention in the research domain in terms of achieving an appropriate "critical mass" level of investment and battling fragmentation. Horizon 2020 plays a central role in the delivery of the Europe 2020 strategy for smart, sustainable and inclusive growth by providing a common strategic framework for the Union's research and innovation funding, thus acting as a vehicle for leveraging private investment, creating new job opportunities and ensuring Europe's long-term sustainable growth and competitiveness. The programme is designed to strengthen the overall research and innovation framework, coordinate Member States' research efforts and implement cross-border research collaboration, thereby avoiding duplication and ensuring public financing is used in an optimal way. In addition, Horizon 2020 enables continent-wide competition to select the best proposals, thereby raising levels of excellence and providing visibility for leading research and innovation.

Horizon 2020 has three main strands, namely:

- Excellent Science, which aims to reinforce and extend the excellence of the Union's science base and to consolidate the European Research Area to make the Union's research and innovation system more competitive on a global scale. DG CONNECT is involved in the financing of Future and Emerging Technologies in the Research Infrastructure parts.
- Industrial Leadership, which aims to speed up development of the technologies and Innovations that will underpin tomorrow's businesses and help innovative European SMEs to grow into world-leading companies. DG CONNECT implements the Leadership in enabling and industrial technologies part.
- Societal Challenges, which reflects the policy. priorities of the Europe 2020 strategy and addresses major concerns shared by citizens in Europe and elsewhere.

a) Excellent Science - Future and Emerging Technologies (FET)

FET's mandate is to foster radically new technologies by supporting collaboration across scientific disciplines for exploring novel and high risk research ideas that can open the way to paradigm-changing innovation. In the context of the implementation of the Horizon 2020 research and innovation programme, the priority is to optimally realise the public investment in the high-risk research necessary for Europe to explore all future technologies, including ICT that are of long-term benefit for citizens, the economy and society.

FET operates through three complementary FET research funding schemes. The FET-Open scheme (managed by REA under the supervision of DG CONNECT) is instrumental to the launch and continuous renewal of a vast portfolio of high-risk research projects spanning across all technologies. The FET Proactive scheme (managed by DG CONNECT) operates through periodic thematic calls in cross disciplinary research domains of strategic

importance to support cluster of projects and the related emerging thematic research communities. The scheme also supports research on next generation of exascale computing as part of the implementation of the contractual Public Private Partnership on next generation High Performance Computing (HPC). DG CONNECT manages the two large-scale FET flagship projects, Human Brain Project and GRAPHENE, and devises a coherent, effective, light and flexible implementation strategy and appropriate governance for FET flagships, using existing funding instruments which combine and coordinate a variety of diverse financial contributions. By doing so, DG CONNECT ensures the best usage of public investment in the execution of the research policy roadmap.

The EU strategy for High-Performance-Computing developed in consultation with all relevant stakeholders aims to put Europe back on the HPC world map. The implementation of this strategy is supported by the contractual Public-Private Partnership signed between the Commission and the European Technology Platform (ETP) – the ETP4HPC. Within **FET Proactive**, 21 projects with a budget of 97.4 MEUR will implement the Strategic Research Agenda of the ETP4HPC.

Within FET Proactive, 3 new forward looking initiatives were launched in the area of Quantum simulation, Global Systems Science and of Cognition. 13 projects will be funded with a budget reaching 40.2 MEUR. This set of clustered projects will contribute to strengthening the related emerging thematic research communities and to maturing research domains of strategic importance. In the specific domain of quantum technologies that hold the potential of breakthrough technologies for sensing, communication and computing, a number of initiatives were conducted in 2015 to stimulate further industrial interest and to coordinate stakeholders in Europe.

The **FET-Open** portfolio is consolidating, gathering a rich set of 42 cross disciplinary visionary projects (with an EU contribution totalling 120 MEUR) and exploring future technologies across all fields. The implementation of FET Open activities is delegated to the Research Executive Agency.

The two **FET Flagship** projects Graphene and Human Brain Project have both made significant progress and will complete their ramp-up phase by March 2016. Framework Partnership Agreements have been signed during 2015 with the two Flagship consortia to ensure their continuation within H2020.

The Flagship partnering model is now fully in place, built around a large Core Project funded by the Commission and a number of Partnering Projects mainly funded by the Member States or H2020 associated countries. Flagships require a dedicated governance structure to ensure efficient decision making, planning and monitoring of their overall progress. Three governance bodies have been set up in 2015: the Board of Funders, a Framework Partnership Board and the Flagship Governance Forum.

b) Excellent Science - e-Infrastructures

The objective to endow Europe with world-class research infrastructures which are accessible to all researchers in Europe and beyond and fully exploit their potential for

scientific advance and innovation" made significant progress 2015.

The call for Centres of Excellence for HPC triggered 23 proposals, of which 8 projects are being funded on several important areas such as energy, biomolecular research, material sciences, weather and climate. Additionally, the project SESAMENET establishing a Network of HPC Competence Centres for SMEs was launched. Also, the 4th implementation phase for PRACE and the long term Framework Partnership Agreement for GEANT, to ensure the sustainability and stability of the high speed network provision in the European Research Area, were signed in 2015.

Concerning the Virtual Research Environments, the interest for the Work Programme 2015 for e-infrastructures exceeded all expectations with 94 proposals of which 8 projects were accepted for funding, ranging from environment and climate, biodiversity, space and earth science to biomedical science, mathematics and social sciences and humanities.

Open access to articles resulting from research funded by the EU

The FP7 pilot on Open Access to research data started in June 2015. Out of the 3699 projects, 12% from areas not in the pilot have opted in while 35% of projects from areas in the pilot have opted out. These figures are reasonable given the level of industrial participation in the programme as industrial participants tend to have a lower acceptance of Open Access to data.

c) Leadership in Enabling and Industrial Technologies (LEIT)

Electronic Components and Systems for European Leadership (ECSEL) Joint Undertaking

ECSEL JU is a partnership between the private and the public sectors for electronic components development. ECSEL JU offers funding for research, development and innovation projects with unparalleled systemic and strategic impact for smart, sustainable and inclusive economic growth. In the ECSEL 2015 calls, 13 projects were awarded approximately 270 MEUR European and national grants out of total eligible costs of about 650 MEUR. Significant progress was made towards a balanced approach, covering and integrating micro and nanoelectronics, embedded/cyber physical systems and smart system integration.

Some of the projects selected by the ECSEL forerunners, ARTEMIS and ENIAC, are now beginning to deliver concrete socio-economic results: for example, one award-winning project developed a best-in-class leadership technology to reduce energy losses by up to 40% in energy generation, distribution and utilisation by manufacturing power electronics devices on silicon wafers thinner than paper. This technology leveraged a private investment of 250 MEUR in Dresden.

Important Project of Common European Interest (IPCEI)

The Electronics Leaders Group made up of industry representatives developed an ambitious roadmap and implementation plan in 2014 with the goal of doubling the added value of semiconductor manufacturing in Europe by 2020-2025. To achieve this goal significant

investments in Europe by industry are needed and to facilitate these investments the use of the IPCEI instrument is required. This instrument foreseen in the Treaty allows inter alia the financial support by Member States to transnational projects of strategic importance for the EU in line with EU state aid rule. In this particular context, the IPCEI would be used to provide financial support for the first production of advanced semiconductors, i.e. the stage after research and innovation that bridges the gap to full volume production.

Both the roadmap and the implementation plan were presented in 2015. The full IPCEI is currently in preparation with 6 BEUR total co-investment in first production along five streams of complementary activities including on sensors, low power and compound semiconductors, power electronics and equipment/materials. The IPCEI builds on R&I done in FP 7 which will continue in H2020 (mainly through the ECSEL JU).

Industry is in close contact with the relevant Member States and regions to ensure proper co-financing of the project. Such co-financing will be essential not only to attract private funds but also because of the spill-over effect on the competitiveness of the whole economy. It is expected that by mid-2016, the IPCEI will be sufficiently advanced for the Member States to notify state aid to the Commission. The Commission will then analyse the notification and take a decision whether the financial support of Member States foreseen is in line with the rules governing IPCEIs.

Content Technologies and Information Management

To lay the foundations for a data economy and to prepare the ground for the **contractual Big Data Value contractual Public-Private Partnership** (BDV cPPP), the 2014 "Big Data Innovation" call was complemented by the "Big Data – Research" call, which together mobilize 269 beneficiaries in 32 actions. A very broad and balanced participation (49% industry, 51% research, government and non-profit) contributes to effective technology transfer and broad mobilization of European data-driven industry, technology providers and best research centres working together on industrial challenges of high potential impact. Several key European industry sectors emerged with strong partnerships in research and innovation actions. These actions address, for example, media analytics, aviation, automotive industries and manufacturing. In addition to key industrial Big Data challenges and key research challenges and gaps, the calls addressed framework conditions necessary in creating a thriving data-driven economy: improving the skills base of European data industries, covering the broader societal and economic priorities, and ensuring better access to data assets and Big Data processing technologies for SMEs. As an example of the latter, an Open Data incubator (ODINE) for SMEs was set up, stimulating European SMEs and start-ups to build a thriving business around data assets.

In parallel, mobilisation, networking and consultation of the industry was pursued in the context of the **Big Data Value Association**, representing the private side of the BDV cPPP. A number of visible and impactful concrete actions were organized, such as the Big Data Value Association Summit in Madrid and the European Data Forum in Luxembourg, attracted some 700 professionals, both data specialists and users of data technologies.

Research and innovation has been supported in the production of more powerful and

interactive tools for **Cultural and Creative industries** and anticipated future trends through interaction in and between different segments of these industries. The main objective is to strengthen Europe's position as provider of products and services based on individual and business creativity. Within the topic "Support the growth of ICT innovative Creative SMEs/technologies for creative industries", 18 projects were launched with a budget of 18 MEUR. An activity named STARTS – S&T&ARTS – was initiated to bring to bear creativity in the Arts on innovation in Europe. Within the topic "Technologies for better human learning and teaching", 12 projects were launched with a budget of 52 MEUR.

Preparation of a Cloud PPP and strategic R&I agenda

DG CONNECT put forward the concept of a **Cloud Public-Private Partnership**. In order to prepare the strategic research and innovation agenda for cloud, a group of industry representatives (cloud service providers, SMEs, research centres, equipment manufacturers) was consulted on the main research challenges to be overcome in the next 3 to 5 years in the cloud computing sector. The industry group will deliver early in 2016.



FIWARE

FIWARE is an open initiative targeted to create a sustainable ecosystem where European companies (and companies in other regions wishing to join Europe in this endeavour) capture the opportunities that will emerge with the new wave of digitalisation brought by combining the Internet of Things with information and Big Data services on the Cloud. FIWARE technologies combine an open source standard platform integrating a number of components making it easier to develop smart applications. 2015 marked FIWARE's transition into the market, with support and visibility increasing markedly. By year end more than 800 start-ups and SMEs went through the FIWARE Accelerator, with some 74 considered as high-flyers and dozens of cases where start-ups succeeded on the market and obtained further funding. Considering the outcome in terms of success stories, training, networking and ecosystem building, the FIWARE Accelerator became an excellent investment for the public sector. The industry core groups supporting FIWARE, opens up to new industry partners with the launch of the Open Source Community and the FIWARE foundation.

Collective Awareness Platforms (CAPS)

With regards to the portfolio of projects on CAPS, the bottom up initiatives of the projects has reached visible impact at local or community level. CAPS has reached a maturity stage, with the concept of harnessing the power of networks for engaging citizens by creating collective awareness and action becoming increasingly visible in multiple areas, ranging from health, environment, finances, and social inclusion.

R&D international cooperation

Four new H2020 Coordinated Calls were launched with Japan, Korea, Brazil and Taiwan. The FIWARE mundus programme reached out to other countries and specifically to Mexico and Brazil, where it supported the setup of FIWARE nodes and encouraged specific use cases and

application development. FIWARE mundus organised the participation of 4 European cities to the US led Global Cities Teams Challenge. As follow-up, FIWARE signed a partnership agreement with the US National Institute of Standards and Technology on Smart Cities and standardisation.

d) Societal Challenges

Health, demographic change and well-being

Digital health topics in the Horizon 2020 Work Programme 2016/17 underlined its importance in research and innovation for health and care. The topics include mHealth, in-silico trials, personalised computer models Big Data for public health policies, cybersecurity, digital health literacy, workforce skills and interoperability. These topics attract lots of interest as we received as much as 250 proposals but of which only 4% will finally receive the EU funding.

Some results and success stories in 2015

- A number of the projects showcased at the European Innovation Summit are creating spin-offs and/or taking steps towards commercialisation of the product: [FATE](#) (together with REMPARK created the spin-off; SENSE4CARE which has commercialised [ANGEL4](#)), [FARSEEING](#) ([mHealth Technologies](#)), [PERSSILAA](#) ([kick-off initiative langgezond.nl](#)) , and the [Kompai robot](#).
- LEA, the tender that won the pan-European Pre-Commercial Procurement under the FP7 project Silver, [won the prestigious Herman Wijffels innovation prize](#) in the Netherlands.
- Care robots are now being deployed faster and at a wider scale (e.g. Zora in care homes in Belgium and in France) and are also in the media spotlight. The Giraffplus project / the Giraff robot continued to receive media attention. The French Kompai received the [Worldwide Innovation Challenge award](#).
- Dem@Care project called Sensorizon, which is a system for assisting people with dementia and personnel in nursing homes, won the regional final in the Venture Cup business plan competition in Sweden, in the category "Life Science & Technology".

Secure, clean and efficient energy

The close cooperation in this Societal Challenge with other DGs continued successfully, with DG CONNECT focusing on the digital dimension of the challenges. Deliverables included adoption of a Machine to Machine standard by the European Telecommunications Standards Institute, which allows appliances to communicate on energy-related matters. In addition, a set of models for handling of energy consumption data has been agreed by European distribution system operators for electricity.

Smart, green and integrated transport

The focus area on automation in road transport is supporting the policy work on connected and automated driving. Closer multi sector cooperation has started to strengthen European industries' role in global competition in telecommunication and mobility markets. Results of telecommunication-centric and automotive-centric research are then fed into cross-sectorial innovation, paving the way to deployment. First major deliverables can be expected in summer 2016, in particular a large European project on connected and automated driving

and/or deployment roadmap.

Climate action, environment, resource efficiency and raw materials

DG CONNECT is closely cooperating with other Commission services and is focusing on the digital dimension, and notably on the regular update of the ICT for water roadmap. The [ICT4water cluster](#) now covers 10 FP7 and 5 H2020 projects which work towards the priorities set up in the 2015 roadmap.¹¹

Europe in changing world; inclusive, innovative and reflective societies

In the area of ICT-enabled Open Government six projects started in 2015 and seven contracts were signed for the projects that will address this area and also the area of meeting new societal needs by using emerging technologies in the public sector. Projects such as [WeLive](#) and Step aim to transform the current e-government approach by facilitating a more open and participatory model of design, production and delivery of public services.

Trust and security

The first projects in the Digital Security Focus were launched with topics addressing ICT security as a core enabling technology for trustworthy ICT (e.g. cryptography) and topics which addressed the societal challenge of privacy. As good example of the technological and societal challenges addressed is the WITDOM project, which will develop innovative security and privacy enhancing techniques in order to enable the use of Cloud Computing in sensitive areas such as eHealth and Financial Services.

e) Cross-cutting activities - Internet of Things Focus Area

Substantial effort has been devoted to kick-off the Focus Area of IoT to support the up-take of common reference architectures and open platforms across different sectors and to develop ecosystems and coordination with on-going initiatives across directorates and DGs at the application level.

f) Fast Track to Innovation pilot

The Fast Track to Innovation pilot was launched in 2015. It is testing a new approach to give the development of innovations the last push needed before their introduction to the market. It is the only fully bottom-up measure in H2020 promoting close-to-market innovation activities and open to all types of participants.

DG CONNECT concluded that the cooperation with the REA, INEA and EASME executive agencies, which are involved in the implementation of the various societal challenges programmes on behalf of DG CONNECT worked well in 2015. For DG CONNECT, the feedback

¹¹ Emerging topics and technology roadmap for Information and Communication Technologies for Water Management, 1.6.2015, <https://ec.europa.eu/digital-single-market/en/news/ict-water-management-roadmap-2015>.

of results into policy making as part of the strategy for the dissemination and exploitation of Horizon 2020 research results is still the most challenging issue in cooperation with the executive agencies. Improvements have been brought by the revised versions of the Memoranda of Understanding with REA, INEA and EASME.

3) Connecting Europe Facility (CEF)

The Connecting Europe Facility (CEF) supports trans-European networks and infrastructures in the sectors of transport, telecommunications and energy. In this context the Commission has proposed for the first time a series of guidelines covering the objectives and priorities for broadband networks and digital service infrastructures in the field of telecommunications.

The telecommunications part of CEF has a budget of 1.04 BEUR, out of which 170 MEUR are for Broadband networks and 870 MEUR for Digital Service Infrastructures (DSIs) delivering networked cross-border services for citizens, businesses and public administrations. Supported projects are to contribute to:

- Improvements in the competitiveness of the European economy;
- Promotion of the interconnection and interoperability of national, regional and local networks;
- Access to such networks, thus supporting the development of a Digital Single Market.

Part of the Connecting Europe Facility (CEF) is managed by the INEA executive agency and DG CONNECT concluded that the cooperation with INEA worked well in 2015.

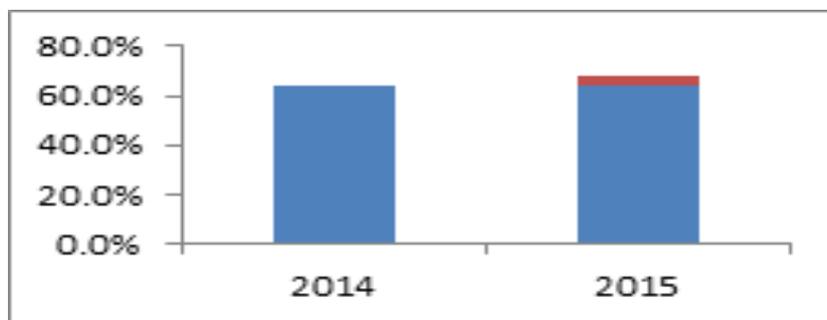
a) Broadband networks

By reason of the disparities in Member States' capacity to act and in order to ensure a coherent approach to EU project financing across the telecommunications sector, action at EU level can better achieve the objectives pursued, due to its scale and effects. More specifically, the EU level will provide for economies of scale in the use of innovative financial instruments by catalysing private investments.

Over 2015, the following improvements took place in the area of connectivity:

- Coverage of 30Mbps and faster networks increased to 68.2% as an additional 4.5% of European households were covered
- Connection to Fast Broadband increased to 17,5%. During 2015 an additional 6,8% of European households were connected.

Graph: EU28 coverage by 30 Mbps and faster Broadband



Broadband networks are the key enabler of the DSM. DG CONNECT efforts focused on linking the vision for broadband infrastructure into DSM files, in particular the Telecom Review and on facilitating investment. The latter involved finalisation of work with Member States – in close collaboration with DG Regional and Urban Policy, DG Agriculture and Rural Development and DG Employment, Social Affairs and Inclusion - on programming digital expenditure in **European Structural Investment Funds** and the monitoring of relevant ex-ante conditionalities. For this purpose, DG CONNECT made available to stakeholder the monitoring tool, developed jointly with the Institute for Prospective Technological Studies of the Joint Research Centre, which traces digital allocations throughout various EFSI programmes.

DG CONNECT was also an active partner in the design and implementation of the **European Fund for Strategic Investments (EFSI)** led by DG Economic and Financial Affairs, and is supporting implementation by mobilising digital stakeholders and preparing the pipeline of projects. For the most mature projects, identified via the Connected Communities initiative, DG CONNECT launched the technical assistance programme with the World Bank, and directed the others towards the European Investment Advisory Hub. The evaluations of the Project Bonds Initiative (with Axione as the first digital project bond) were also successful.

DG CONNECT's "Broadband Europe" website, supported by a monthly newsletter and a vibrant Twitter account, continued as a prime information and collaboration site for broadband best practice. Five most inspiring best-practice projects were recognised for their excellence with European Broadband Awards.

DG CONNECT also secured **cooperation from the EIB** and several promotional banks, Member States' buy-in and initial CEF financing for the Broadband Fund for smaller projects. The initiative to establish so called Broadband Competence Offices (BCOs), undertaken with DG REGIO and DG AGRI, is well under way. The BCOs will provide assistance to citizens and businesses about broadband developments, increase the capacity of administrations in the planning, implementation and monitoring of projects and improve the coordination between relevant Member States' entities, as well as between EU level support and local project promoters.

b) Digital Service Infrastructures (DSIs)

CEF is also designed to deploy **Digital Service Infrastructures (DSIs)** across the EU with the vision to create European networks of digital services allowing all citizens, businesses and administrations across the EU to fully benefit from living in a DSM. For example, when travelling, a citizen will be able to enjoy the continuity of care by using cross border services to access his or her clinical information or receive ePrescriptions. Another example is the

Online Dispute Resolution service, which allows both consumers and traders to be more confident in trading online and across borders, as they know that any disputes, if any, can be solved out of court in a simple, fast and low-cost way.

2015 has been marked by complementing the development of the **DSI core service platforms** launched in 2014 and linking national services to them through grants for generic services. Moreover, new services have been added to the digital services portfolio, such as eHealth, Online Dispute Resolution and eProcurement. Two calls for proposals for generic services have been launched for a total budget of 55.6 MEUR, and 26.7 MEUR have been allocated for the procurement of Core Service Platforms.

DG CONNECT also promoted the **interconnection and interoperability of national public services online**, through the so called "building block DSIs". Calls for proposals for three major building blocks were launched: eID/eSignature, eDelivery and eInvoicing. The eID/eSignature and eDelivery building blocks were made "eIDAS compatible" thereby contributing to the completion of the DSM and to the specific EU legislation (i.e. eIDAS and the relevant implementing acts).

eID

15 countries, including 13 Member States, are already connected to the eID network via STORK (predecessor of CEF eID).

Over 200 downloads of the sample software of the eID technical specifications compliant to eIDAS v0.9. This version was released on Joinup on 21 September 2015.

Over 1000 downloads of the sample software of the eID technical specifications compliant to eIDAS v1.00, which was released on 27 November 2015.

eSignature

One implementing decision of eIDAS about eSignature (and eSeals) formats was published on 8 September 2015.

The EU Trusted List Management is in the process of being transitioned from the Services Directive to the eIDAS Regulation. An implementing decision on the trusted lists was published on 8 September 2015.

eInvoicing

In August 2015 the CEN Project Committee on Electronic Invoicing opened the EU norm for eInvoicing to public review.

eDelivery

By the end of 2015, 111 Access Points of eDelivery had been deployed: 102 as part of the PEPPOL network (eProcurement) in over 18 countries (including 15 Member States) which already accounts for thousands of daily transactions. 9 as part of the e-CODEX network (eJustice) which accounts over 700 exchanged documents in 2015, between 8 countries. It will also be used by the Business Registers Information System and in the eHealth domain.

The core service platform of the **Automate translation** building block started its implementation by setting up a network of contact points and establishing a coordination mechanism for collecting language resources in the Member States, complemented by a helpdesk for technical and legal questions related to collection, processing and re-use of linguistic data. The goal is to use the language resources as raw material to improve the quality of automated translation, serving the multilingual users of the Digital Service Infrastructures of CEF.

Besides the building blocks, support was also given to sector-specific DSIs, such as:

The **Safer Internet digital services infrastructure** with the objective to deploy services that help make the internet a trusted environment for children through actions that empower and protect them online was launched in 2015 (the [BIK portal](#)). The services are accessed and delivered either at EU level or via interoperable national Safer Internet Centres (generic services) which are supported through grants in 27 Member States plus Norway and Iceland. A follow-up call for generic services with a budget of 16,2 MEUR was published by INEA.

One multi-beneficiary grant in support of the core service platform for access to digital resources of European heritage ('**Europeana**') was launched with an indicative budget of 8.9 MEUR.

The **pan-European Data Portal**, giving access to datasets generated by Member States' public administrations, was opened in November 2015. This first action in the deployment of a Digital Service Infrastructure on Access to re-usable public sector information - Public Open Data, supports the wider dissemination and re-use of data made available under the Public Sector Information Directive (2003/98/EC revised by 2013/37/EU). When opening, the portal was already referencing more than 300.000 datasets through a multilingual interface and a catalogue harmonising metadata provided by the national and local source portals. The Portal can contribute to improving the efficiency of public services. Greater efficiency in processes and delivery of public services can be achieved thanks to cross-sector sharing of data, which can for example provide an overview of unnecessary spending. The economy can benefit from an easier access to information, content and knowledge in turn contributing to the development of innovative services and the creation of new business models. Society benefits from information that is more transparent and accessible. Open Data enhances collaboration, participation and social innovation.

Supporting activities were initiated for generating and harmonising **data creation and re-use**, in particular with the publication of a report on Open Data Maturity in Europe and two analytical reports on Open Data & Digital Transformation and on Open Data & e-skills. In addition, a study was carried out to collect, assess and aggregate all economic evidence to forecast the benefits of the re-use of Open Data for the period 2016-2020.

The Commission will undertake the CEF Programme evaluation in 2016 running until mid 2017 in accordance with the requirements of Article 27 of the CEF Regulation (EU) 1316/2013 consulting the Member States and the stakeholders.

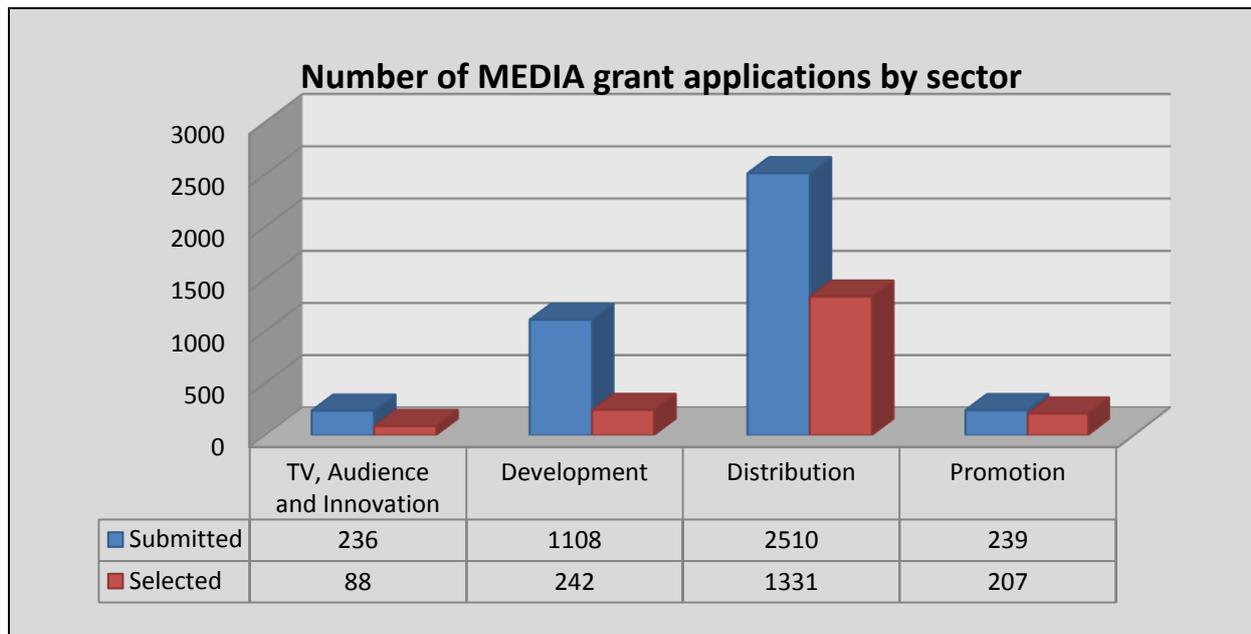
4) MEDIA

DG CONNECT is responsible for matters related to **media freedom and pluralism**. As these are fundamental rights enshrined in the EU Charter, DG CONNECT closely cooperated with other services, in particular DG Justice. Given that the EU competences are limited as the Charter applies to Member States only when they are implementing EU law, DG CONNECT often acted as a "facilitator", and funded notably several independent projects with the support of the European Parliament: the establishment of the European Centre for Press and Media Freedom, the continuation of the existing mapping media freedom platform built by Index on Censorship and the Media Pluralism Monitor, an academic tool identifying risks to

media pluralism.

Media literacy is the ability of a citizen to develop critical thinking towards the media and to interact with it in a wise manner, including social media. In 2015, the role of the Commission in this area included exchanging best practices and organising events discussing current topics.

Creative Europe MEDIA contributed to the DSM goal of strengthening access to content by supporting industrial capacity to develop and distribute European works across borders. It serves the purpose of cultural diversity, by increasing the understanding and appreciation for other cultures. It also bolsters our economic competitiveness by spurring innovation and creativity. The 2015 Work Programme introduced a number of changes in line with the overall objective of increasing access to content, in particular as regards distribution of non-national European films. Support to on-line catalogues and to licensing hubs was introduced within the on-line distribution scheme. Ongoing programmes, such as Europa Cinemas, continued to make a significant contribution to the theatrical distribution of non-national European films.



The Creative Europe programme has earmarked 121 MEUR for 2016-2020 for a financial mechanism that provides guarantees to lending and credit institutions, to encourage them to offer financing for cultural and creative sectors initiatives. This **Cultural and Creative Sectors Guarantee Facility** is expected to increase the number of loans available and to unlock new funding opportunities for these sectors. Overall, the Facility should help to leverage till year 2020 over 600 MEUR in additional lending. In addition, the guarantee facility is intended to help the financial sector to improve its understanding of the cultural and creative sectors' specificities, through the availability of a capacity-building programme. The implementation of the Facility is going to be entrusted to the European Investment Fund (EIF) and is subject of the signature of a Delegation Agreement between the Commission and the EIF. The negotiations with the EIF started in 2015 and a signature of the mandate, marking a start of a roll out of this financial instrument, is expected in early 2016.

DG CONNECT conducted a strategic dialogue with the **Euronews channel** that resulted in revamped EU programmes, new digital proposals and new safeguards of the channel's editorial independence following its acquisition by an Egyptian businessman. A new Framework Partnership Agreement was signed in December 2015. In 2015, the Commission financed the production and broadcast of Euronews programmes in the following languages: Greek, Hungarian, Portuguese, Arabic and Farsi, and also a number of programme formats specifically dedicated to EU affairs, such as news, interviews, live reports, and magazines.

The European Radio Network **Euranet Plus** funded by the Commission promotes greater coverage of EU affairs. It is formed by 15 leading European radio stations (both public and private) from 15 EU countries and operates under an editorial charter which guarantees its full independence. It broadcasts in 15 European languages and has a potential audience of 20 Million daily listeners. The cumulative audience will be much higher over the course of the yearly duration of the action.

As regards the DG's relationship with the EACEA executive agency which implements the Creative Europe - MEDIA sub programme on behalf of DG CONNECT, significant developments occurred with the inauguration of a series of Focus Groups between DG CONNECT and EACEA, designed to improve knowledge sharing between the units and to address upcoming common challenges such as the revision of the 2016 Work Programme (WP), the preparation of the 2017 WP and the upcoming mid-term review of the Creative Europe Programme. DG CONNECT concluded that the cooperation with the EACEA executive agency worked well in 2015.

The examples of economy and efficiency

a) Human resources

As per 31 December 2015, 72% of staff in DG CONNECT worked on core operational activities (42% on programme management, 22% on policy and law making and 8% on law monitoring and enforcement). Another 19% of staff worked on budgetary management and anti-fraud activities. The remaining 9% worked on administrative support and coordination functions. DG CONNECT is striving to further reduce the share of administrative support and coordination functions across the DG. Over time the proportion of staff working on policy-related work can be expected to increase, especially as a result of the delegation of Horizon 2020 budget management to external agencies.

DG CONNECT continued to be confronted with financial and resource constraints, related to the 1% taxation for staff reduction, but also the taxations linked to internal redeployment, efficiency gains, centralisation of common support services to the Common Support Centre and the delegation of the Horizon 2020 programme management to executive agencies. As a consequence, DG CONNECT made substantive efforts at decreasing support and coordination functions and handling job quotas and external budget to best align available resources with operational priorities. Within this context, DG CONNECT introduced a new HR governance model enhancing middle management's responsibility in people management and allowing the redeployment of administrative support staff to operational activities.

In January 2015 a Single Centre for Procurement was created in DG CONNECT to cover centralised management of procurement. This initiative created efficiency gains in term of resources. It comprises of 17 colleagues (initiation and verification team). The overall goal of the Single Centre is to act as the financial support/gestionnaire to all DG CONNECT's services, including:

- Assist/guide the operational units on all procurement procedures of DG CONNECT;
- Responsible for initiation of all financial and administrative tasks related to new procurement procedures;
- Initiation of all payments related to DG CONNECT activities (ca 150 invoices/month);
- Management of DGs running contracts (initiation of amendments, terminations, renewals,...) in close cooperation with the operational units.

The verification team is responsible for the Verification of all procurement and payment files. In 2015, 621 contacts have been signed (64 studies; 16 complex files and 541 light procedures) and 923 payments have been processed.

Another major development results from the delegation of part of the execution of DG CONNECT's Horizon 2020 project management to executive agencies to improve the economy and efficiency of Horizon 2020 management at Commission level.

b) Knowledge sharing

DG CONNECT's strong commitment to modernising and professionalising its knowledge sharing continued also with the development of the Connected knowledge sharing platform. More than 70% of staff were actively using the platform on a regular basis to carry out their work. While still in pilot mode Commission-wide, the platform was also taken up by the Joint Research Centre, and an extension to the entire Commission was being considered.

Within the context of the delegation of H2020 budget management to executive agencies, DG CONNECT completed its reflection process to redefine the role of the in-house Project Officers, who were thus renamed Programme Officers in recognition of their new, broader role under H2020. The standard job descriptions of Programme Officers and other actors involved in programme management were updated in January 2015 to offer a menu of roles and skills to mix and match according to need. The change allows to optimize duties, improve efficiency, and to make the best use of Programme Officers' skills.

Effort was also made to ensure effective knowledge exchange arrangements between DG CONNECT and its executive agencies, and more broadly to ensure effective dissemination and use of H2020 results, in order to provide the best value for all stakeholders. A twin goal was to maximise the impact of DG CONNECT's actions and to "join the dots" between the political priorities and research. Starting from the standard H2020 rules set by the Common Support Centre, DG CONNECT ambitiously identified its own goals to simplify processes and enable a DG-level coherent and effective practice. Most of the proposed actions rely on

better linking and unifying existing processes and practices, thereby offering practical ways to achieve economy and efficiency.

2. Management and Internal control

Assurance is an objective examination of evidence for the purpose of providing an assessment of the effectiveness of risk management, control and governance processes.

This examination is carried out by management, who monitors the functioning of the internal control systems on a continuous basis, and by internal and external auditors. Its results are explicitly documented and reported to the Director-General. The reports produced are:

- The reports submitted by the Directors, which include the outcome of the internal control monitoring taking place in each Directorate;
- The reports from Authorising Officers in other Directorates-General managing budget appropriations in cross-delegation;
- The reports on control results from entrusted entities in indirect management as well as the result of the Commission supervisory controls on the activities of these bodies;
- The contribution of the Internal Control Coordinator (ICC), including the results of internal control monitoring at Directorate-General level;
- The results of the ex-post audits;
- The observations and recommendations reported by the Internal Audit Service (IAS);
- The observations and recommendations reported by the European Court of Auditors (ECA).

This section reports the control results and other relevant elements that support management's assurance. It is structured into (a) Control results, (b) Audit observations and recommendations, (c) Effectiveness of the internal control system, and resulting in (d) Conclusions as regards assurance.

2.1 Control results

This section reports and assesses the elements identified by management that support the assurance on the achievement of the internal control objectives¹². The DG's assurance building and materiality criteria are outlined in the AAR Annex 4. Annex 5 outlines the main risks together with the control processes aimed to mitigate them and the indicators used to measure the performance of the control systems.

¹² Effectiveness, efficiency and economy of operations; reliability of reporting; safeguarding of assets and information; prevention, detection, correction and follow-up of fraud and irregularities; and adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments (Art 32 Financial Regulation).

DG CONNECT expenditure is managed under direct and indirect management. Amongst these items, the research programmes represent the most important part in quantitative terms. This explains that this report will mostly focus on this part of the budget.

This report will present the elements supporting the assurance on the internal control objectives in two different segments: direct budget implementation by DG CONNECT and budget implementation tasks entrusted to other DGs and entities.

Budget implemented by DG CONNECT (in EUR)	
1- Research Programmes	1.482.374.863
H2020	752.342.573
FP7	606.655.575
CIP	54.217.356
Other measures	1.479.170
Administrative expenditure	67.680.189
2- Non Research Programmes (Communication Actions, Creative Europe, Connecting Europe Facility, and subsidy to the EACEA)	62.735.098
Budget implementation tasks entrusted to other DGs and entities (in EUR)	
1- Implementing bodies	166.253.011
2- Cross subdelegations to EMPL, ESTAT, GROW¹³, SANTE, OP, RTD, OIB	4.857.137
TOTAL	1.716.220.109 EUR

Furthermore, DG CONNECT was a parent DG for four executive agencies (see below table). The executive agencies processed operational payments for a value of 224,2 MEUR linked to DG CONNECT activities.

Entity	Operational Payments implemented directly by the EAs linked to DG CONNECT activities
Innovation and Networks Executive Agency (INEA)	6.748.585 MEUR
Research Executive Agency (REA)	91.298.171 MEUR
Executive Agency for Small and Medium-sized Enterprises (EASME)	30.026.806 MEUR
Education, Audiovisual and Culture Executive Agency (EACEA)	96.148.666 MEUR

¹³ No payments in 2015.

Conclusion

DG CONNECT has systematically examined the available control results and indicators, including those aimed to supervise entities to which it has entrusted budget implementation tasks, as well as the observations and recommendations issued by internal auditors and the European Court of Auditors. These elements have been assessed to determine their impact on the management's assurance as regards the achievement of the various internal control objectives mentioned above.

As the estimated residual error rate of the financial operations under FP7 is above 2%, which is the materiality criterion for this programme, DG CONNECT, in accordance with the other members of the Research Family, will maintain a reservation for FP7 expenditure.

For the financial operations under CIP, the results of the ex-post audits show that the residual error rate is also above 2%. As it is expected that the 2% residual error rate target at the end of the programming period for CIP ICT PSP will not be attained, a reservation on CIP is also maintained for the reporting period.

Considering that a simplification of the existing legislative framework for FP7 and CIP is not an option and that the legality and regularity objective has to be balanced with other objectives such as the attractiveness of the programmes and the cost of controls, it is unlikely that the error rate will further reduce without affecting the effectiveness of the programme.

As regards the budget implemented by other DGs and entities, the cross subdelegated AODs, the executive agencies INEA, REA, EASME and EACEA, the ECSEL Joint Undertaking, the Ambient Assisted Living Association, the decentralised agencies BEREC Office and ENISA as well as the EIB, we are well aware of the reservations of REA, EASME and EACEA and the issues concerning the ECSEL JU with respect to the definition of an error rate and do not consider that they represent a failure of our supervision. There are elements which indicate that the residual error rate of the ECSEL JU is likely to be lower than the error rate of FP7 calculated for the budget managed directly by DG CONNECT. However, given the findings of the Court concerning the calculation of the error rate (see section 2.1.2 and 2.2), DG CONNECT follows a prudent approach and includes the related FP7 budget from Artemis/ENIAC and ECSEL within the scope and exposure of its reservation for FP7.

As regards the CONNECT FP7 funds entrusted to the AAL Association and the FP7 cross subdelegation to RTD, there is no indication that the FP7 error rate would be lower than the one calculated for DG CONNECT. The scope and exposure of our own reservation for FP7 therefore also covers the CONNECT FP7 funds entrusted to the AAL Association and the relevant cross subdelegations (DG RTD).

From DG CONNECT's own monitoring and supervision work, which includes regular contacts/representation or at least desk reviews of relevant management reports and audit reports, DG CONNECT has not identified any other issues which could impact the management's assurance and there are no indications that the reporting would not be

reliable or complete. For none of the management / control segments any reputational risk was identified by senior management for the reporting period which could have a significant impact on assurance on the achievement of the internal control objectives.

Based on the above, in conclusion, DG CONNECT's senior management has reasonable assurance that, overall, suitable controls are in place and working as intended. Risks are being appropriately monitored and improvements and reinforcements have been implemented where necessary.

The table below presents the control results in summary.

DG CONNECT	Scope: payments in MEUR	Conclusion on the Internal Control Components (Incos)				Info from auditors available	Reservations
ABB or other activity-level	as per AAR annex 3, table 2	Positive conclusion on "Legality and Regularity	Positive conclusion on "Efficiency & Cost-effectiveness"	Positive conclusion on "Fraud prevention and detection"	Positive conclusion on the other Incos		
Budget implemented by DG CONNECT							
H2020 FP7 CIP	752,34 606,66 54,22	YES, with the exception of FP7 for which the res. error rate is 2,58% and CIP for which the res. error rate is 4,42%	YES, CEC is positive TTI = 125 days, TTG= 216 days, TTP = 93.4% on time	YES		YES	YES, with the exception of FP7 for which the res. error rate is 2,58% and CIP for which the res. error rate is 4,42%
Preparatory actions & Pilot projects	1,48						
Administrative Expenditure	67,68						
Communication Actions, Creative Europe, Connecting Europe Facility and subsidy to the EACEA	62,74						
Total	1545,11						
Budget implementation tasks entrusted to other DGs and entities							
1. Implementing Bodies							
		Yes, but the relevant	Yes, CEC is positive	YES	YES, some specific remarks on		Relevant payments to ECSEL,

EIB - Project Bond Pilot Initiative (PBI)	0,00	payments to ECSEL, Artemis/Eniac and AAL are covered in the FP7 reservation			ECSEL		Artemis / Eniac and AAL are covered in the FP7 reservation	
ECSEL / Artemis & Eniac (legacy)	144,64					YES		
AAL	8,17					YES		
Berec Office	4.02					YES		
Enisa	9.43							
Total	166,25							
2. Cross sub-delegations								
EMPL, GROW, ESTAT, OIB, OP, SANTE, RTD	4,20	YES, but the relevant payments (RTD) are covered in the FP7 reservation	YES	YES		NO	Relevant sub-delegated payments are covered by FP7 reservation	
Cross sub-delegation under reservation	0,27							
Administrative expenditure	0,39							
Total		4,86						
TOTAL	1716,22							

2.1.1 Control Results for budget directly implemented by DG CONNECT

Control effectiveness as regards legality and regularity

DG CONNECT has set up internal control processes aimed to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

In view of the level of error in the CIP ICT PSP and the FP7 programmes which both exceed the materiality threshold of 2%, DG CONNECT makes two reservations: one concerning the rate of the residual errors with regard to the accuracy of cost claims in the Seventh Research Framework Programme (FP7) and one reservation concerning the rate of the residual errors with regard to the accuracy of cost claims in the ICT Policy Support Programme of the Competitiveness and Innovation framework Programme (CIP ICT PSP).

In order to improve the overall efficiency and coherence of the Horizon 2020 framework programme implementation, the Common Support Centre has put in place detailed and comprehensive guidance on the different business processes covering the life cycle of grants. Guidance is available on-line, both for staff in the different services and bodies implementing H2020, and for the external beneficiaries in the format of an "on-line manual"

available on the Participants Portal. In addition and also provided by the CSC, the IT system ensures to the possible extent that actions are implemented according to the rules with embedded automatic controls whenever possible.

The legality and regularity in the execution of the projects is monitored through ex-ante and ex-post controls. As detailed ex-ante controls represent a considerable administrative burden on beneficiaries and the Commission, as they require the transfer of large amounts of information and its detailed checking, it has a seriously negative impact on the time to grant and the time to pay beneficiaries. For this reason the Research family and therefore also DG CONNECT has decided to obtain most of its assurance from ex-post controls.

Under the grant agreements' provisions for H2020, FP7 and the non-research programmes managed by the DG, the beneficiaries, when exceeding a fixed threshold of EU contribution requested, are obliged to submit a Certificate on the Financial Statement (CFS) issued by a qualified and independent auditor, ascertaining the eligibility of the costs claimed.

The Research DGs have defined and implemented a common control strategy for FP7, the key elements of which are the ex-post audit strategy and the recovery process. These elements are intended to provide reasonable assurance on the legality and regularity of expenditure on a multi-annual basis by systematically detecting and correcting errors. Since 2012, as an extension of the ex-post audit strategy, a Common Representative audit Sample was used to identify the common error rate across the whole of FP7 operations. This Sample has been instrumental in lowering the audit burden on large beneficiaries who, before the implementation of this new approach, would have been audited by several Commission services.

Since 2014 a Common Support Centre (CSC) has been delivering services regarding legal support, ex-post audit, IT systems and operations, business processes and programme information to research DGs, EAs and JUs in the scope of FP7 and H2020. The Common Audit Service (CAS) has been performing all new FP7 audits for DG CONNECT since 1 January 2014 and reports on their results. The FP7 audits which were on-going at that date continue to be handled by the DG. In 2015, the CAS launched 97 FP7 DG CONNECT audits from which 96 were closed.

DG CONNECT implements a dedicated multi-annual audit strategy, which has been updated in 2015, for the CIP ICT PSP and Safer Internet programmes. These audits are performed by an external audit firm contracted by DG CONNECT.

This report will not further address the management of the financial operations under non-research programmes (CEF, Safer Internet) because they represent limited amounts.

The key indicators which can be used to measure the effectiveness of the controls as regards legality and regularity are the residual error rates, the audit coverage and the implementation of the audit results.

Seventh Research Framework Programme (FP7)

Residual Error rate

The audit activity on the FP7 Research funding is regulated at global "research family" level by the common FP7 Audit Strategy (2009-2016). The strategy was formally adopted by the Commission research services in October 2009 and updated in 2012, 2014 and 2015.

The assurance process is based on the error rate stemming from a Common Representative audit Sample (CRaS) for the research family. The following principles apply:

The sampling is done on a population consisting of all cost statements received by all Commission Research Services;

The monetary unit sampling (MUS) technique is used for selecting the cost statements to be audited (on the basis of the EC-share of the amount claimed).

The common FP7 Audit Strategy also defines the principle of extension of the audit findings, which consists in correcting systematic errors noted in the audits also in the non-audited periods and other projects of the same beneficiary.

The main indicator which flows directly from the audit activity and serves as basis for evaluating the legality and regularity of the payments is the residual error rate which represents the estimated level of error remaining in the payments' population after correcting/recovering adjustments resulting from ex-post audits. When calculating the residual error rate the following assumptions are made:

- All errors detected through ex-post controls will be corrected.
- All participations will be cleaned from errors of systematic nature via the procedure of extension of the audit findings.
- The residual error rate for non-audited participations after extension of the audit findings will equal the non-systematic error rate.
- The methodology for calculating the residual error rate is laid down in Annex 4.

The representative error rate calculated based on the common sample is 4,47%. It is based on 298 closed audits as of 31 December 2015 out of 324 selected transactions. The residual error rate amounts to 2,58% which is above the 2% materiality criterion. This residual error rate would then lead to an amount at risk of 33,8 MEUR.

As the residual error rate exceeds the established materiality level of 2%, DG CONNECT will maintain the reservation already expressed in the 2014 annual activity report.

A third common representative audit sample has been launched which will contribute to further reduce the residual error rate.

Audit coverage

As of 31.12.2015, the share of the directly audited requested contribution amounts to 7,4%. When the extension of the audit findings' effect is taken into account together with audits on DG CONNECT's beneficiaries by other research services, the coverage increases to 72,5%.

In 2015, 105 audits were closed (including 96 by the Common Audit Service) covering 73 MEUR. On a cumulative basis, 682 audits were closed covering 598 MEUR.

Implementation of audit results

The table below provides the results of the implementation of FP7 direct audits (31,3 MEUR adjusted).

Year	Audit activity		Results in favour of the EC		Open for implementation		Implemented (registered in contract management system)						TOTAL (in terms of participations)	
							Offset from payment		Recoveries		Waived (amounts below materiality criteria)		Open	Implemented
	# audits closed	# participation audited	# participations	Adjustments in EUR	#	EUR	#	EUR	#	EUR	#	EUR		
FP7 Total	682	1.450	752	34.782.825	119	5.770.412	268	9.320.958	355	19.613.971	10	77.485	16%	84%
From which CAS	124	221	88	3.504.987	33	1.992.165	10	383.734	45	1.129.088	0	0	38%	62%

An additional 4,37 MEUR were recovered in the scope of the extension of the audit findings process, out of which 2,3 MEUR in 2015.

ICT Policy Support Programme of the Competitiveness and Innovation framework Programme (CIP ICT PSP).

In order to ensure audit coverage on this part of the budget, a specific audit strategy was defined in 2012 and updated in 2015.

CIP ICT PSP applies the same materiality criteria and principles as FP7. These criteria, principles and the methodology to calculate the error rate are laid down in annex 4. The results of the ex-post audits performed on CIP ICT PSP projects show a detected error rate of 4,50% for 2015 and a cumulated residual error rate of 4,42%, which is above the 2% materiality criterion. This residual error rate, when compared to the related ABB line, would lead to an amount at risk of 4,7 MEUR.

Only 38 audits were part of the non-risk based batch sample and could be used to determine the error rates for CIP ICT PSP. Considering this low number and the resulting limited coverage of requested EU contribution of 5,1%, the above mentioned error rates should be considered with caution. Nevertheless, it is expected that the 2% residual error rate target at the end of the programming period will not be attained and a reservation is made.

Both CIP ICT PSP and FP7 have a similar level of representative error rate (4,47% for FP7 and 4,50% for CIP ICT PSP) which is explained by the similarity of the control systems in both programmes. However, the residual error rate of the FP7 is lower than the CIP ICT PSP because of the effective 'cleaning effect' of the extension of audit findings process in FP7 which allows correcting systemic errors of a beneficiary which is detected by an audit performed by a DG or an executive agency implementing FP7. Although the extension of audit findings also applies in CIP ICT PSP, its effect is more limited because beneficiaries do not appear in many different other CIP ICT PSP grants.

Audit coverage

The share of the directly audited requested contributions, including risk based audits, amounts to 5,1%. On a cumulative basis, 52 CIP ICT PSP audits were closed covering 23,7 MEUR. The number of closed audits is below the target set in the strategy (206 by the end of 2015). However, monitoring auditors were recruited in 2015 and 92 CIP ICT PSP audits were launched in 2015. As a result, the number of closed audits should substantially increase in 2016.

Implementation of audit results

The table below provides the results of the implementation of CIP ICT PSP direct audits.

Year	Audit activity		Results in favour of the EC		Open for implementation		Implemented (registered in contract management system)						TOTAL (in terms of participations)	
							Offset from payment		Recoveries		Waived (amounts below materiality criteria)		Open	Implemented
	# audits closed	# participation audited	# participations	Adjustments in EUR	#	EUR	#	EUR	#	EUR	#	EUR		
CIP Total	52	84	48	2.045.546	5	56.848	14	289.223	28	1.699.119	1	356	10%	90%

An additional 0,7 MEUR were recovered in the scope of the extension of the audit findings process.

H2020

H2020 is in its starting phase and did not yet reach the appropriate level of maturity to start with ex-post audits. The H2020 audit strategy was defined in 2015 in line with Article 29(3) of Regulation (EU) No 1291/2013 of 11 December 2013 which states that “As part of the control system, the Audit Strategy for expenditure on indirect actions under Horizon 2020 shall be based on the financial audit of a representative sample of expenditure across Horizon 2020 as a whole. That representative sample shall be complemented by a selection based on an assessment of the risks related to expenditure.” This corporate approach will also deliver benefits for the calculation of indirect audit coverage, through the extension of audit findings to non-audited projects of the same beneficiaries.

Efficiency and Cost-effectiveness

Based on an assessment of the most relevant key indicators and control results, DG CONNECT has assessed the cost-effectiveness and the efficiency of the control system and reached a positive conclusion. As regards efficiency, this conclusion is based on the time-to-inform, time-to-grant and time-to-pay indicators. As regards cost-effectiveness, the conclusion is based on an 'overall cost-effectiveness of control'- indicator of 2% for direct management and an 'overall cost-effectiveness of control'- indicator of 0.98% for indirect management.

This section gives details on the efficiency related indicators and secondly on the overall cost-effectiveness of the control systems.

The control system is divided into four distinct stages – programming, evaluation and selection of proposals (stage 1), contracting (stage 2), monitoring the execution of the projects (stage 3) and ex-post controls and recoveries (stage 4). Key indicators have been defined for each stage of the process.

Stage one: Programming, evaluation and selection of proposals

The first stage concerns the preparation and the publication of the calls for proposals and the subsequent evaluation of the received proposals. The objective of this stage is to ensure that the most promising projects for meeting the policy objectives are among the selected proposals.

The selection process implies an initial screening of the submitted proposals to assess their admissibility and eligibility. In a second stage the eligible proposals are evaluated by an independent evaluation panel and an adequate evaluation review procedure is put in place in case of complaints regarding the evaluation. The aim of all steps in this process is to ensure a robust and transparent selection which in turn will guarantee the highest value for money return.

The key indicators which can be used to measure the performance of this stage are the level of execution of the DG's work programmes, the attractiveness of the calls, the time-to-

inform, the time to pay experts and the number of requests for an evaluation review.

Level of execution of the DG's work programmes

DG CONNECT's work programmes for 2015 foresaw the implementation of 8 calls for proposals for H2020 and 12 calls coordinated by other DGs or agencies. All of these calls have been successfully implemented.

Attractiveness of the calls

The attractiveness of the DG CONNECT's funded programmes can be measured by the proportion of the proposals received compared to the ones which were effectively selected. For the year 2015 there were on average 10 proposals received for each selected proposal. This demonstrates the attractiveness of the programmes managed by DG CONNECT.

Average time-to-inform

In 2015, DG CONNECT complied with this control effectiveness indicator with a maximum time-to-inform result of 5 months (average time to inform was 125 days) and a maximum period of 8 months (average time to sign was 216 days) for signing grant agreements, in accordance with Article 128(2) of Regulation (EU, Euratom) No 966/2012. This shows that the evaluation exercises have been carried out in an efficient manner.

Evaluation review procedures

As shown in the table below the number of introduced requests for review (27) is very low compared to the total proposals (2234; 1.12%). The latter is a good indication for the efficiency of the selection process.

	TOTAL (2014)	TOTAL (2015)
Number of proposals received	2361	2234
Number of proposals selected	282	223
Number of evaluation review request received	15	27
Number of review requests received as % of number of proposals received	0,64%	1,12%
Number of review cases leading to a re-evaluation	0	1
Number of reviews leading to a re-evaluation as % of number of proposals received	0	0,04%
Number of (successful) evaluation reviews / total number of proposals received	0	0,04%

Time-to-pay experts

The average for paying reviews in 2015 is 18 days compared to 16 days in 2014¹⁴.

Cost-benefit analysis:

In 2015, the total costs of evaluation are estimated at 10,2 MEUR, out of which 3,4 MEUR internal costs and 6.8 MEUR experts payments¹⁵. The benefits of this stage are not quantifiable, but are the assurance that the most excellent projects are selected out of the many projects proposed. This and the oversubscription described above underlines the importance of the controls in place at this stage of the grant management process, and why the costs are justified.

Stage two: grant preparation /contracting

After a sound and transparent selection process, the next stage consists of formalizing the contractual side of the proposals. The objective of this stage is translating each of the selected proposals into legally binding grant agreements, allowing for the management of both the scientific and financial aspects of the projects and to ensure the best value for money output of each of the contracted projects.

Unlike under FP7 and CIP, proposals under H2020 are expected to be mature and ready to be implemented without the need for substantial adjustments in the scope and repartition of the scientific work, the duration or the maximum financial contribution for the project. In the case of Horizon 2020, given that no negotiation phase is foreseen for this programme, the difference between the recommended funding and the final grant awarded is negligible.

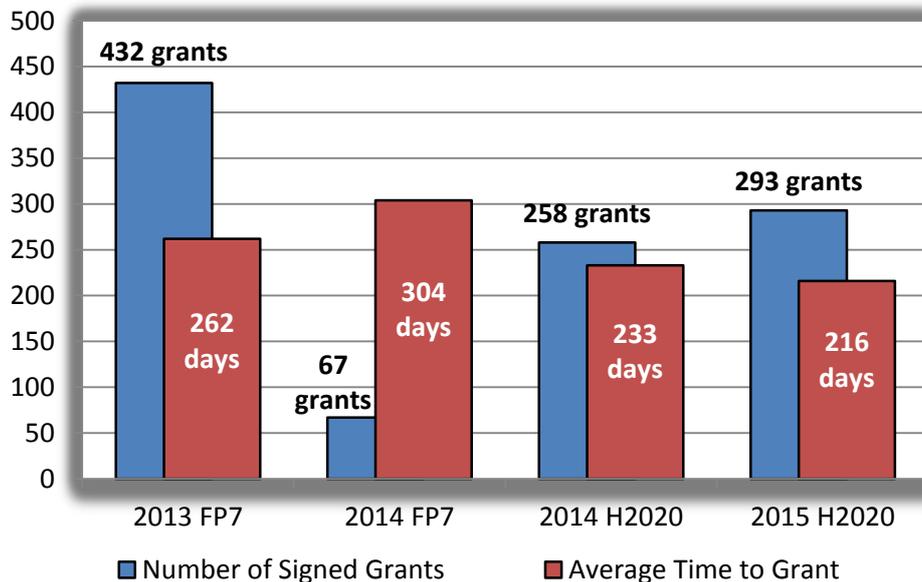
The key indicator which can be used to measure the performance of this stage is the time-to-grant.

Time-to-grant (TTG)

The time-to grant is the length of the time between the closure date of the call for proposals and the date of the signature of the grant agreement. The TTG indicator shows the average period between the calls' closure date and the grants' signature. The evolution of the TTG in the last 2 years of FP7 and the first 2 years of Horizon 2020 is shown in the table below.

¹⁴ Data gathered from the CORDA database.

¹⁵ Data gathered from the EMI application managed by REA.



In 2015, 293 H2020 projects were signed for a total EC contribution of 1218,60 MEUR and a total budgeted cost of 1345,88 MEUR. The average TTG of these projects was 216 days, which forms a considerable improvement compared to FP7¹⁶. Nevertheless, it needs to be noted that a shorter TTG does bring some risks as it reduces the time available for the Commission to carry out extensive checks before signing grants.

Cost-benefit analysis:

The main benefits of this stage are unquantifiable as they consist in translating valuable scientific ideas into legally binding grant agreements. Notwithstanding the fact that staff carried out multiple tasks across the entire grant management process, the internal costs associated with the contracting process could be quantified to be 2,2 MEUR in 2015 (2,72 MEUR in 2014).

Stage three - monitoring the execution

The objective of this stage is to ensure that the projects are performing towards their implementation plans and that the financial operations comply with regulatory and contractual provisions.

The execution of the projects is monitored through different tools, the ex-ante controls being one of the most important ones at the time of cost claims submitted by the beneficiaries. Other monitoring measures include the assessment of the technical reports, which in some Programmes may have further pre-financing implications and commitments adjustments (only applicable to Multi-Annual Programmes), as well as direct and regular contacts with the beneficiaries and project promoters, technical site visits, project management workshops, among others.

¹⁶ Data gathered from the FP7 and H2020 CORDA data warehouse.

The key indicators which can be used to measure the performance of this stage are the rejected costs of the costs claimed as a result of ex-ante controls and the time-to-pay (TTP).

In 2015, 1981 MEUR costs were submitted (FP7 and CIP) and as a result of the ex-ante controls 24 million euro (1.23%) of the cost claimed processed were rejected.¹⁷

The time-to-pay (TTP) indicator:

This indicator gives the percentage of payments made within the binding deadlines. DG CONNECT continued its efforts in 2015 to further reduce the number of late payments, in line with the tighter deadlines imposed by the Financial Regulation. For the year 2015, 93.42% of the total number of payments were paid on time compared to 92 % in 2014. The average time for payments made on time is 24.5 days. The overall average payment time is 26.5 days.¹⁸

Cost-benefit analysis:

DG CONNECT estimates that this stage of the process costs around 16,7 MEUR for the normal management of the contracts and ex-ante controls over payment claims. The average project management costs (exclusive of financial management) are 11.299 EUR per running project. The average number of projects managed per project officer was 14.9 in 2015.

Number of running projects in 2015:

2015	Projects	Budget	Policy Officers	Average Project	Average Budget
FP7	818	3,203,438,232	99.2	8.25	32,292,724
CIP	107	320,799,869	99.2	1.08	3,233,870
H2020	553	2,045,038,238	99.2	5.57	20,615,305
Total	1,478	5,569,276,339	99.2	14.9	56,141,899

The real benefit of the ex-ante controls cannot - with the current practices and IT systems in place - be fully quantified. Indeed, many interactions take place between the consortia and the DG's operational services in order to clean the costs statements from substantial errors still before the official submission of the latter. Therefore, the costs accepted for reimbursement are often very close to the one submitted in the "pre-cleaned" financial statements. As a consequence the difference between the accepted costs and the ones claimed with the latest submission of the financial statements cannot fully measure the "gain" from the ex-ante control measures.

Nevertheless, it can be concluded that as a result of ex-ante controls, 24 MEUR of ineligible costs have been rejected at the level of the invoices. This is higher than the internal costs

¹⁷ The data has been extracted from the application PHOENIX.

¹⁸ See annex 3 tab 6.

(16.7 MEUR) estimated for stage 3 but the figures are not directly comparable. Firstly, a significant part of the cost relates to normal contract management and the analysis of the deliverables, and this management and analysis can be valuable to ensure high quality, even if it does not lead to a financial saving.

The amount recorded in the accounting system (ABAC) for recoveries in 2015 is 13.9 MEUR excluding recoveries from ex-post controls (5.2MEUR¹⁹) gives an estimate of the savings through these controls of 8.7 MEUR.

Stage four – ex-post controls

The fourth stage includes the ex-post audits as well as the recovery of any amounts found to have been paid in excess of the amount due.

Ex-post controls are a key element of the control strategy of the DG. Detailed ex-ante controls represent a considerable administrative burden on beneficiaries and the Commission, as they require the transfer of large amounts of information and its detailed checking. This has a seriously negative impact on the time to grant and the time to pay beneficiaries. For this reason the Research family and therefore also DG CONNECT has decided to obtain most of its assurance from ex-post controls.

Cost-benefit analysis:

As regards the ex-post controls performed on FP7, which are performed by the Common Audit Service hosted by DG RTD, a more detailed analysis of their activities can be found in DG RTD's annual activity report.

As regards the ex-post controls performed by DG CONNECT on CIP ICT PSP and the legacy of FP7 audits (18 audits as per 31 December 2015), DG CONNECT estimates that this stage of the process costs around 0.8 MEUR. The amount of recoveries in 2015 is 5.207.363 EUR (2.960.947 EUR audit / 2.246.416 EUR extrapolation). This gives a first estimate of the savings. However, the real benefit of the ex-post controls, including the deterrent and training effect, cannot be fully quantified.

Overall, given the above indicators, it is considered that an efficient control system has been put in place.

Overall assessment of the cost-effectiveness

DG CONNECT estimated the costs of controls for each of the different stages in 2015. The result is shown in the table below.

Table: Overall cost effectiveness indicator direct grant management

¹⁹ The sum of 5,2 MEUR is related to the recoveries on ex-post controls (2,9 MEUR related to the financial audits and 2,2 MEUR to the extension of audit findings).

	Costs in MEUR			Other Costs (external inputs)	Total Costs
	Officials	Contractual staff	END		
Stage 1 – programming and evaluation	2,8	0,5	0,1	6.8	10,2
Stage 2 – contracting	1,6	0,6			2,2
Stage 3 – monitoring the execution (financial circuits)	12,9	3,6	0,2		16,7
TOTAL EX-ANTE	17,3	4,7	0,3	6,8	29,1
Stage 4 – ex-post controls and recoveries	0.6	0,1	0,1	0.2	1.0,
TOTAL EX-POST	0,6	0,1	0,1	0,2	1.0
TOTAL COSTS	17,9	4,8	0,4	7.0	30,1

The total cost of control can be evaluated for the 4 stages at approximately 30.1 MEUR. This would correspond to 1.75 % of the total operational payments made in 2015. The figures must nevertheless be read with some caution. Some stages are related to H2020 and others to FP7. This decreases the relevance of the general cost-effectiveness calculations and renders the comparison with the previous year's results difficult.

The benefits of the grant management control system are considered here as a whole, as they cannot only be expressed in monetary terms.

The first objective of the control system is to achieve the main policy objective – to create growth and jobs, especially by contributing to more and better science in Europe. In this sense, the controls aim to ensure good work programmes, select the best proposals to be funded and verify the scientific deliverables. Thus, the benefits are much wider than the budget implemented in the given year. The second objective of the control system is to ensure that the EU contribution paid to the beneficiaries is complying with internal control objectives. This means, in short, legal and regular transactions done in a cost-effective way. This report develops at several points how the balance between these two requirements has been found.

The benefits are not always quantitative and a simple cost benefit evaluation would not reflect this reality. Nevertheless, during the different control stages, some economies could be estimated: rejected costs as a result of ex-ante controls (an estimate of 24 MEUR on a total of 1981 MEUR submitted cost for FP7 and CIP ICT PSP), 13.9 MEUR recorded in the accounting system for recoveries and ex-post recoveries of irregular expenditure (5.2 MEUR in 2015).

Overall, it is considered that a cost-effective control system has been put in place given

- the achievements of the research policies as set out in Part 1;

- the quantitative and qualitative benefits arising from the control systems adopted;
- the error rates set out above, which are at a level considered as being an appropriate balance between different policy objectives and between trust and control;
- the costs of the control system compared to the level of expenditure;
- the positive evolution as regards the efficiency of the time-to-pay, time-to-inform and time-to-grant indicators.

In addition, DG CONNECT used the possibility provided for in Art 66(2) of the Financial Regulation to differentiate the intensity of the DG's controls – in view of the different risk-profiles among its current and future transactions and of the cost-effectiveness of its existing and any alternative controls – by re-directing the control resources towards more stringent controls where needed while having leaner and less burdensome controls where appropriate.

After the setting-up of the Single Procurement Centre, a revision of the financial circuits is ongoing. This revision of the financial circuits comprises risk analysis, verification of compliance with the principle of segregation of duties as well as the compliance with the applicable regulatory framework. An updated version of the financial circuits will be documented in early 2016. As regards H2020 financial circuits, they were designed by the CSC for the research family.

Fraud prevention and detection

DG CONNECT has developed and implemented its own anti-fraud strategy since 2009, elaborated on the basis of the advice and methodology provided by OLAF. It has been updated in 2011 taking into account the Commission's overall anti-fraud strategy²⁰. All the resulting measures have been implemented. The DG now follows and implements the Common Anti-Fraud Strategy in the Research Family (RAFS) including its action plan which continues all key principles and measures of the DG CONNECT strategy. The RAFS was first established in 2012 and has been updated in early 2015 notably to respond to the new challenges, including H2020, of all the Research DGs and Services. The implementation of the RAFS and in particular the action plan accompanying the RAFs is regularly monitored by the governing board of the Common Support Center (CSC) and the Fraud and Irregularities in Research (FAIR) Committee, in which DG CONNECT actively participates.

Until 2014, DG CONNECT has provided its staff access to plagiarism checks through an individual contractual agreement with an external service provider. For 2015 the provision of plagiarism checks and the follow-up of the agreement have been transferred to the CSC and is made available centrally to the staff of all research DGs and services.

To raise staff awareness on fraud risks and its mitigation including the use of plagiarism

²⁰ COM(2011)376 of 24.06.2011.

checks training has been run by DG CONNECT. In 2015, more than 40 CONNECT staff attended anti-fraud training. The main Research anti-fraud trainings are based on a common anti-fraud training module, based on common experience and cases, developed in cooperation with the other research DGs and executive agencies.

DG CONNECT continued to transmit information to OLAF about suspicions of fraud and other irregularities. In 2015, OLAF opened 7 new investigations having an impact on DG CONNECT. DG CONNECT held several meetings with OLAF with regards to ongoing and closed investigations and DG CONNECT participated in the Fraud Prevention and Detection Network organised by OLAF. In addition, an anti-fraud correspondent was designated for the DG.

Overall, given the existing anti-fraud strategies and their implementation along with the other points mentioned it is considered that an effective and adequate fraud prevention and detection system is in place.

Safeguarding assets and information

The assets reported by DG CONNECT in the balance sheet 2015 mainly concern short term and long term pre-financing covered by the FP7.CIP/H2020 control strategy. A separate control strategy for safeguarding the assets was therefore not required in 2015.

2.1.2 Budget implementation tasks entrusted to other DGs and entities

This section reports and assesses the elements that support the assurance on the achievement of the internal control objectives as regards the results of the DG's supervisory controls on the budget implementation tasks carried out by other Commission DGs and entrusted entities distinct from the Commission.

DG CONNECT has entrusted parts of its budget for implementation to other Commission services, a Joint Undertaking, two regulatory agencies, a body linked to Article 185 initiatives and to the EACEA executive agency. No subsidies were paid to the EIB in the context of the CEF Financial Instruments in 2015.

Entity	Legal form	Purpose	Payments made
Other Commission Services through a number of cross-	EU Institution	Cross subdelegation to EMPL, GROW, ESTAT, OP, OIB, SANTE and RTD	4.86 MEUR ²¹

²¹ Cross subdelegation to DG GROW: no payments in 2015.

subdelegations			
ECSEL	Joint Undertaking	ECSEL inter alia contributes to the development of a strong and globally competitive electronics components and systems industry in the European Union.	144.64 MEUR
BEREC office	Regulatory Agency	BEREC contributes to the development and better functioning of the internal market for electronic communications networks and services	4.02 MEUR
ENISA	Regulatory Agency	ENISA seeks to develop a culture of Network and Information Security for the benefit of citizens, consumers, business and public sector organisations in the European Union	9.43 MEUR
Ambient Assisted Living (AAL) Association	Private Law body	The Ambient Assisted Living Joint Programme (AAL JP) is a Member States' initiative for applied research on ICT and ageing well.	8.17 MEUR
Financial instruments to the EIB established under the CEF Broadband (i.e. Project Bond Initiative)	EU Institution	To enable long-term capital market financing of infrastructure projects including, but not limited to, those carried out under project finance structures (which on a risk-sharing basis aims to enable long-term capital market financing of infrastructure projects including, but not limited to, those carried out under project finance structures.	No payments made in 2015
Education, Audiovisual and Culture Executive Agency (EACEA)	Executive Agency	EACEA is responsible for the management of certain parts of the EU funding programmes in the fields of education, culture, audiovisual, sport, citizenship and volunteering. In 2015 its Delegation Act was revised to include DG CONNECT as parent DG.	8.67 MEUR
Innovation and Networks Executive Agency (INEA)	Executive Agency	INEA officially started its activities on 1 January 2014. For DG CONNECT it implements the part of the Connecting Europe Facility (CEF)	No payments made in 2015
Research Executive Agency (REA)	Executive Agency	Since 2014, the Agency has been implementing manages a large share of Horizon 2020.	No payments made in 2015
Executive Agency for Small and Medium-sized Enterprises	Executive Agency	The Executive Agency for Small and Medium-sized Enterprises (EASME) has been set-up to manage several EU programmes. EASME replaces replaced the EACI (Executive Agency for	No payments made in 2015

(EASME)		Competitiveness and Innovation)	
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In all cases of indirect management, the supervision arrangements are based on the principle of controlling 'with' the relevant entity. For further details, see the ICT on indirect management in Annex 5.

A. Control effectiveness as regards legality and regularity

DG CONNECT has set up internal control processes aimed to ensure the adequate management of the risks relating to the legality and regularity of the underlying transactions, taking into account the multiannual character of programmes as well as the nature of the payments concerned.

Concerning ENIAC and ARTEMIS which were merged into ECSEL, the ECA issued a qualified opinion on the grounds of not being able to conclude if the ex-post audit strategy provides sufficient assurance with respect to the legality and regularity of underlying transactions. Based on the measures taken during 2014 and 2015, including an additional assessment of the performance of the JU's, in October 2015, the European Parliament granted discharge to the Joint Undertakings. In the 2014 Annual Report on the JUs, the Court of Auditors reports that the JUs accounts for the financial year 2014 present fairly, in all material respects, its financial position. The Court also repeated its qualification on the grounds that it is not possible to calculate a reliable weighted error rate nor a residual error rate on the projects launched under ARTEMIS and ENIAC JUs. The issue highlighted by the Court will not further impact ECSEL operation under Horizon 2020 as the JU funding mechanism is no longer linked to the recognition of costs at national level. The audits will be performed by the Commission and the error rates will be calculated on basis of those audits.

The reservation concerning FP7 includes the CONNECT FP7 funds entrusted to the AAL Association, Artemis and ENIAC (which were merged into ECSEL) as well as the relevant cross subdelegations.

a) Expenditure cross-subdelegated

As in previous years, DG CONNECT has cross-subdelegated a number of activities to different services within the Commission, in order to arrange the provision of certain operations more efficiently. Being a Commission service itself, the Authorising Officer by delegation (AOD) of the cross-delegated service is required to implement the appropriations subject to the same rules, responsibilities and accountability arrangements.

Control results

The cross-delegation agreements require the AODs of cross-delegated services to report on the use of these appropriations. The reports on the sub-delegations received from other DGs and offices did not provide any indication of any particular unfavourable observation with regard to the regularity and legality of the transactions concerned.

As concerns the FP7 budget of the cross subdelegation to RTD, in the absence of elements justifying a residual error rate lower than 2%, we will include it in the scope of our

reservation.

Please see annex 10 for the complete list of DG CONNECT activities covered by cross sub-delegations in 2015

b) Executive agencies

In 2015, DG CONNECT was a parent DG of the following executive agencies: the Research Executive Agency (REA), the Innovation and Networks Executive Agency (INEA), the Executive Agency for Small and Medium-sized Enterprises (EASME) and the Education, Audio-visual and Culture Executive Agency (EACEA).

The transfer of the management of programmes to these executive agencies implied some "transition" risks that, when they materialize, can lead to delays in the implementation of the programmes, information gaps, etc. These risks had to be closely monitored during the year by the units coordinating the programmes and at the level of the Steering Committee.

In 2015, DG CNECT gave a 8.67 MEUR subsidy to the EACEA. No other payment was made to any of the other executive agencies

Supervision arrangements

In terms of supervision, the control systems of the executive agencies are similar to those of their parent DGs. They produce their own AARs. The supervision of the executive agencies continued throughout 2015. The annual activity reports of these agencies were reviewed by DG CONNECT and their Steering Committees.

The executive agencies also report quarterly to the Directorate-General on the use of resources. The preparation of the EAs' budgets and annual work plans is coordinated with the Directorate-General. The EAs are subject to audit by the Internal Audit Service of the Commission and by the European Court of Auditors – DG CONNECT uses their reports as an element of the supervision of these bodies. No unexpected issues arose which would need to be raised in this report.

Control results

The executive agencies have not reported any reservations that would impact the management of programmes on behalf of DG CONNECT. EASME reported that the multi-annual residual error rate for the IEE II programme was above 2%, at 2.45%. However, this reservation concerns the Intelligent Energy Europe programme, which supports the European Union's energy policy which EASME implements for DG ENER. REA maintains the reservations made in its AAR 2014 as regards the material impact of residual errors in the SME actions financed under the FP7 Capacities Specific Programme and the Space and Security themes financed under the FP7 Cooperation Specific Programme, both exceeding the materiality level of 2%. Both programmes are implemented on behalf of DG RTD. The AAR of EACEA contains a reservation for the Lifelong Learning Programme (2007-13) as the multi-annual error rate is still above 2%. In addition, a new reservation is issued for the Culture programme 2007-2013 where the high error rate is partly due to an atypical audit. It must be noted however that EACEA does not implement these programmes on behalf of DG

CONNECT. The Creative Europe - MEDIA sub programme which EACEA implements on behalf of DG CONNECT is not affected by these reservations. INEA has not reported any reservation for the reporting period.

Due in particular to the establishment of the Common Support Centre (CSC) and the further development of H2020 business processes and IT tools, a revision of the Memoranda of Understanding signed in 2014 with REA, INEA and EASME has become necessary and is ongoing.

Overall DG CONNECT considers that its supervision of the executive agencies has been effective and sufficient in 2015. The subsidies to the administrative budget of these entities, i.e. 8.67 MEUR to EACEA, were substantiated for their use. There was no surplus budget which would have been to be returned to DG CONNECT.

c) ECSEL Joint Undertaking

ECSEL is a partnership between the private and the public sectors for electronic components and systems. The ECSEL Joint Undertaking is established within the meaning of Article 187 of the Treaty on the Functioning of the European Union for the implementation of the Joint Technology Initiative on 'Electronic Components and Systems for European Leadership' for a period up to 31 December 2024. It was established by Council Regulation (EU) No 561/2014 of 6 May 2014.

Supervision arrangements

The Commission's Internal Audit Service (IAS) performs ECSEL's internal audit function and ECSEL works to take into account the comments made by the IAS. The ECA is the external auditor of ECSEL and DG CONNECT receives copies of the reports, for action, if necessary.

Directorate A 'Components and Systems' of DG CONNECT represents the Commission in the Governing Board (GB) and the Public Authorities Board (PAB) of the ECSEL JU. DG CONNECT closely monitors the work of the ECSEL JU²², inter alia by preparing the Commission's position in the GB and in the PAB.

In 2015 ECSEL launched two calls for proposals with a total EU estimated contribution amounting to 145 MEUR²³, leveraging a similar amount from the participating Member States and Associated countries and some 300 MEUR contributions from the participants.

In the context of the 2013 discharge for ENIAC and ARTEMIS, on 29 April 2015, the EU Parliament voted to postpone the discharge for ENIAC and ARTEMIS JUs for the financial year 2013. ECSEL JU (legal successor of ENIAC and ARTEMIS) took corrective measures

²² ENIAC and ARTEMIS Joint Technology Initiatives in which DG CONNECT represents the EU were merged into a single Joint Undertaking on 'Electronic Components and Systems for European Leadership' (ECSEL) (Council Regulation (EU) No 561/2014 of 6 May 2014). ENIAC and ARTEMIS implemented operations until the 27 June 2014 when ECSEL was established.

²³ Of that amount 95 MEUR represents revenues from the 2015 general Union budget and 50 MEUR represents estimated revenues from the 2016 general Union budget.

(assessed national assurance systems, organized a workshop with relevant stakeholders, calculated a proxy for the residual error rate of 0.66%; below the materiality threshold, adopted a comprehensive policy and established a database on conflict of interests, disclosed CVs and declarations of conflict of interest for the Executive Director and managers in accordance with Staff Regulations and has set up an internal audit capability). The European Court of Auditors (the Court) also acquired additional information directly from the National Funding Authorities (NFAs).

On 21 August 2015 the Commission provided the European Parliament with its assessment of the ECSEL JU's report concerning the contributions of all members other than the Union and on the socio-economic impact of completed projects. In the assessment the significant results and the high leverage of EU funds in ECSEL JU were acknowledged. As a result of corrective measures taken, in the October's plenary the European Parliament granted the discharge for the year 2013.

In the context of the 2014 discharge, in the Court's opinion, the JU's accounts for the period of 2014 present fairly, in all material respects, its financial position. However, although recognizing the efforts made by the ECSEL JU to assess the national assurance systems, the Court repeats its qualification on the grounds that it is not possible to calculate a reliable weighted error rate nor a residual error rate on the projects launched under ARTEMIS and ENIAC JUs.

The Commission (DG CONNECT as the 'parent DG') recognizes the importance of the Court's observation and at the same time highlights the importance of the outstanding successes of the initiatives obtained making the JU vital for the digital future of Europe. DG CONNECT will continue to provide its advice and support to the ECSEL JU in its efforts to address all the concerns of the Court and of the budgetary authorities.

The issue highlighted by the Court will not further impact ECSEL operations under Horizon 2020 as the JU funding mechanism is no longer linked to the recognition of costs at national level. The audits will be performed by the Commission and the error rates will be calculated on basis of those audits.

Control results

Overall, DG CONNECT considers that its supervision of the ECSEL JU has been effective and appropriate in 2015. There are elements which indicate that the residual error rate of the ECSEL JU is likely to be lower than the error rate of FP7 calculated for the budget managed directly by DG CONNECT (see 2.1.1 above). However, given the findings of the Court, DG CONNECT follows a prudent approach and includes the related FP7 budget from Artemis/ENIAC and ECSEL within the scope and exposure of its reservation for FP7.

d) BEREC Office

The tasks, organisation and operation of BEREC and the Office are set out in Regulation (EC) No 1211/2009 of 25 November 2009 establishing the Body of European Regulators for Electronic Communications (BEREC) and the Office (BEREC Regulation). The BEREC Office is an EU Body that provides professional and administrative support to BEREC.

With 27 staff, the BEREC Office is managed by an Administrative Manager under the supervision of a Management Committee composed of the Heads of the 28 national regulators (NRAs) and a representative of the Commission.

Supervision arrangements

In 2015 the Deputy Director-General of DG CONNECT and the Director for Electronic Communications & Services as alternate represented the Commission in the Management Committee. Arrangements are in place within the DG to ensure that all proposals to the Management Committee are properly assessed and the Commission's position agreed. The main Commission representative and alternate sign a declaration of assurance in line with the one used in the Commission;

The Administrative Manager, who is also the authorising officer of the BEREC Office, is required to produce a consolidated annual activity report, which should include information on management and internal control systems including the summary of number and type of internal audits carried out by the internal auditor, the internal audit capabilities, the recommendations made and the action taken on these recommendations and on the recommendations of previous years; any observations of the ECA and the actions taken on these observations. The Administrative Manager signs a declaration of assurance in line with the one used in the Commission.

The Commission's Internal Audit Service (IAS) performs the BEREC Office's internal auditing function. The Strategic Audit Plan of the BEREC Office is approved by the Management Committee. The Management Committee and DG CONNECT receive the reports, for action, if necessary;

The ECA is the external auditor of the BEREC Office, and DG CONNECT receives copies of the reports, for action, if necessary. The BEREC Office received, for its 2014 accounts, an unqualified opinion from the ECA on the legality and regularity of the transactions underlying the accounts. The ECA provided some comments on budgetary management, in particular as regards the level of committed appropriations carried over, budget transfers and the contributions from EFTA States.

Control results

The reports and other available information did not provide any indication of particular unfavourable observations with regard to the regularity and legality of the transactions concerned. We have no reason to believe that their reports would be incomplete or unreliable. DG CONNECTS concludes from the information available that resources assigned to the activities of BEREC have been used for the purpose of achieving the objectives of the BEREC office and in accordance with the principles of sound financial management.

A first estimate of the 2015 surplus that should be reimbursed to the EU budget (as assigned revenue) is 220 000 EUR. This amount is not recovered by DG CONNECT but deducted from the 2017 contribution.

Overall, DG CONNECT considers that its supervision of the BEREC and BEREC Office has been effective and appropriate in 2015.

e) ENISA

The tasks, organisation and operation of ENISA are set out in Regulation (EC) No 526/2013 of 21 May 2013 concerning the European Union Agency for Network and Information Security (ENISA) and repealing regulation (EC) No 460/2004. The Agency is tasked to contributing to a high level of network and information security within the Union and in order to raise awareness of network and information security and to develop and promote a culture, of network and information security in society for the benefits of citizens, consumers, enterprises and public sector organisations in the Union. No new mandate for the agency was established during the reporting year.

Supervision arrangements

The Director for Digital Society, Trust and Security, within DG CONNECT and the Director for IT Security within DG DIGIT represent the Commission on the Management Board and the Executive Board.

The Management Board and the Executive Board meet three or four times per year. The cooperation at operational level is ensured via the desk officer for ENISA as well as regular contacts between the operational unit and ENISA's staff (e.g. regular bimonthly phone calls). At managerial level, there are regular meetings between the executive director of ENISA and senior members of the Management and the CONNECT's Director responsible. DG CONNECT may request, at any time, any additional information deemed necessary.

DG CONNECT reviews all documents and information which is sent to the Management Board and the Executive Board including KPIs, documents of the board meetings as well as reports that are presented by ENISA. Sometimes, assistance from the support units in Directorate R is requested particularly for Human Resources and financial matters.

The Executive Director of ENISA, as the authorising officer of ENISA, is required to produce a consolidated annual activity report, which should include information on management and internal control systems including the summary of number and type of internal audits carried out by the internal auditor, the internal audit capabilities, the recommendations made and the action taken on these recommendations and on the recommendations of previous years as well as any observations of the ECA and the actions taken on these observations. He signs off a declaration of assurance.

The Commission's Internal Audit Service (IAS) performs ENISA's internal audit function and ENISA works to take into account the comments made by the IAS. The ECA is the external auditor of ENISA and DG CONNECT receives copies of the reports, for action, if necessary.

In addition, the Executive Director presented an annual ex post evaluation on the Agency's core activities conducted by an independent contractor to the Management Board. The results for the reporting period were positive.

Control results

The reports and other available information did not provide any indication of particular unfavourable observations with regard to the regularity and legality of the transactions concerned. We have no reason to believe that their reports would be incomplete or

unreliable.

A first estimate of the 2015 surplus that should be reimbursed to the EU budget (as assigned revenue) is 80.396,88 EUR. This amount is not recovered by DG CONNECT but deducted from the 2017 contribution.

DG CONNECT concludes from the information available that resources assigned to the activities of ENISA have been used for the purpose of achieving the objectives of ENISA and in accordance with the principles of sound financial management.

Overall, DG CONNECT considers that its supervision of ENISA has been effective and appropriate in 2015.

f) Ambient Assisted Living Joint Programme (AAL JP)

The AAL Association (AALA) is an international not-for-profit association established under Belgian law and constitutes the dedicated implementation structure created by the participating EU Member States, Canada, Israel, Norway and Switzerland (Participating Countries).

The AAL JP is a Member States' initiative for applied research on ICT and ageing well. The budget for calls for proposals is composed of the EC contribution and contributions of Participating Countries and organisations participating in the projects (approximately 25%, 25% and 50% respectively). The new AAL JP is a prolongation of the AAL JP (2008-2013) with the same annual budget and obtained a new mandate for the period 2014-2020 (decision No 554/2014/EU) as a part of the Innovation Investment Package.

Supervision arrangements

The General Assembly, which is the decision taking body of the AALA, appoints the members of the Executive Board and supervises the implementation of the AAL Joint Programme, including approval of annual work programmes, allocation of national funding to projects and applications for new membership. The Commission has observer status in the meetings of the General Assembly and is also has the right to veto the AAL JP annual work programme concludes each year the transfer of funds agreement.

An ex-ante assessment of the AALA's capacity to administer the funds in the indirect centralised management mode was finalised in October 2014. Its recommendations were reflected in the Delegation and Transfer of Funds Agreements as well as in the ex-post audit strategy concerning the EU contribution to the AAL JP. An action plan for follow-up was agreed with the AAL Association in 2015.

The AAL JP is managed by a dedicated implementation structure, namely the Central Management Unit (CMU) and a network of national contact points (NCPs) responsible for the administrative, financial and contractual management. DG CONNECT undertakes every year an annual operational review with independent external experts to assess the overall performance of the AALA and whether all contractual obligations are met. In 2015, this review has confirmed the good operation of the AAL JP and supports the assurance of DG CONNECT. In a few cases payment approvals have been delayed due to missing information

about national audit systems and were only released following receipt of the required information. In addition, there have been programme level evaluations with high level external experts in 2010 and 2013.

Risk management has included verification of financial commitments of Participating Countries before EU financing is allocated as well as for payments, where the EU contribution is subject to a certification of incurred costs by the responsible national public bodies before disbursement of EU funds by the AALA. The AALA has to a) provide information about the audit procedures in each of the Participating Countries and b) to report annually on audits implemented. In addition, the AALA should report as soon as there is a suspicion of fraud or irregularities. The IAS performed an audit on external bodies managing DG CONNECT funds, which recommended establishing a clearer ex-post audit strategy for the AAL JP. According to the recommendation of IAS, DG CONNECT approved, in early 2015, the ex-post audit strategy providing assurance regarding mitigation of risks arising from the EC involvement in the AAL JP. The risks are also recorded in the risk registry.

Control results

DG CONNECT concludes from the information available, and there is no reason to believe that this information would not be complete or reliable, that resources assigned to the activities of AAL JP have been used for the purpose of achieving the objectives of AAL JP and in accordance with the principles of sound financial management. In view of the error rate of FP7 calculated for the budget managed directly by DG CONNECT (see 2.1.1 above) and the absence of elements that would justify a lower residual error rate, the scope and exposure of our own reservation for FP7 will include the related FP7 budget.

g) Financial Instruments - Project Bond Pilot Initiative

The European Investment Bank (EIB) manages on behalf of the Commission (DG ECFIN, DG MOVE, DG ENER, DG CONNECT) the financial instruments established under the Project Bond Pilot Initiative (PBI), which - on a risk-sharing basis - aims to enable long-term capital market financing of infrastructure projects including, but not limited to, those carried out under project finance structures. During the pilot phase of the PBI, the total EU budget contribution for the PBI is limited to 230 MEUR. The amount committed by DG CONNECT for PBI projects in the sector of ICT and broadband projects is up to 20 MEUR.

The various portfolios related to the total contribution (and including the LGTT portfolio), are to be merged into one CEF Debt Instrument portfolio on 1 January 2016. Merging of portfolios as cost-saving measure has been proposed by the EIB and agreed upon by the Commission. The CEF Debt Instrument Delegation Agreement was signed in July 2015 but no payments were made in 2015 to the EIB in the context of the CEF financial instruments.

Supervision arrangements

The EIB delivers an annual operational report on the PBI to the Designated Services and to DG ECFIN. The same applies for financial reporting. Additional quarterly reports are being provided informing on the allocation of PBI assets. The Commission has four nominees on the Steering Committee of the PBI. DG ECFIN chairs the Steering Committee and coordinates exchanges of views between Commission members of the Steering Committee before the

meeting takes place. DG ECFIN also reports twice yearly to the European Parliament and to the Council on behalf of the Commission with the support of Designated Services.

The EC contribution to the PBI First Loss Piece Portfolio serves as a guarantee for the project. The amounts provided from the EU budget are further invested by the EIB. In case of project default or construction cost overruns, this money provisioned as a guarantee will actually be disbursed to support the reimbursement of the overdue amounts, up to the level of EU budget commitment.

Control results

Overall, DG CONNECT considers that its supervision of PBI has been effective and appropriate in 2015. In particular, DG CONNECT considers that the operational and financial reporting (monthly, quarterly and annual reports) is sufficient and provides relevant information and figures to ensure sound and efficient management of the policy aspects of this financial instrument.

h) Financial Instruments - Cultural and Creative Sectors Guarantee Facility

As mentioned in section 1 of the AAR, the implementation of the Cultural and Creative Sectors Guarantee Facility is going to be entrusted to the European Investment Fund (EIF) and will be subject of the signature of a delegation agreement between the Commission and the EIF. The negotiations with the EIF started in 2015 and a signature of the mandate, marking the start of a roll out of this financial instrument, is expected in early 2016. Full reporting on control results (effectiveness as regards legality and regularity, efficiency and cost effectiveness and Fraud prevention and detection) will therefore start as of 2016.

B. Efficiency and Cost Effectiveness of controls

Based on an assessment of the most relevant key indicators and control results, DG CONNECT has assessed the cost-effectiveness and the efficiency of the control system and reached a positive conclusion.

DG CONNECT's costs for the monitoring and supervision of the entities entrusted with budget implementation tasks accumulate to approx. 1.757 MEUR. These costs include primarily personnel costs (in total 13.15 FTEs) and mission costs to attend supervisory board meetings for entities not based in Brussels. Personnel costs/FTE relate in particular to the monitoring via the supervisory Committees, the preparation of budgets (executive agencies), the assessment of the annual activity reports and other periodic reports as well as the annual work programmes.

Overall assessment of the cost effectiveness

The average cost of the monitoring and supervision of the executive agencies, ECSEL, AAL Association, BEREC/BEREC Office, ENISA and payments made under cross subdelegations represent 0.98% of the operational payments made (approx. 179.79 MEUR) to these entities. The ratio of the cost of controls for the executive agencies is not meaningful as DG CONNECT supervised 4 executive agencies in 2015 while payments were made to only one executive agency (EACEA).

The table below provides a more detailed overview on supervision cost per entity:

Entity	Payments made	(estimated) Costs of Control	Ratio
EC services through cross-subdelegations ²⁴	4.86 MEUR	0.034 MEUR	0.70%
Executive agencies ²⁵	8.67 MEUR	0.556 MEUR	Not relevant
ECSEL	144.64 MEUR	0.338 MEUR	0.23%
BEREC Office	4.02 MEUR	0.402 MEUR	10 %
ENISA	9.43 MEUR	0.347 MEUR	3.68%
Ambient Assisted Living Association (AALA)	8.17 MEUR	0.080 MEUR	0.98%
Financial instruments - Project Bond Initiative	None ²⁶	Not relevant	N/A
TOTAL	179.79 MEUR	1.757 MEUR	0.98%

Conclusion on efficiency and cost effectiveness of controls

The DG involvement in the governance of the various entrusted entities did not show any events issues or problems that could have a material impact on assurance as regards efficiency and cost effectiveness of controls. In terms of supervision by the DG, efficiency and cost-effectiveness is considered adequate.

C. Fraud prevention and detection

The Commission Anti-Fraud Strategy is binding for all Commission services and the executive agencies. The DGs and executive agencies of the research family also adhere to the Common Anti-Fraud Strategy in the Research Family (RAFS). The ECSEL Government Board adopted the Common Anti-Fraud Strategy in the Research Family (RAFS) on 13 May 2015. ECSEL is represented in the Fraud and Irregularities in Research Committee and 17 staff members (of 27 eligible) participated in anti-fraud trainings in 2015. For details on the RAFS please refer to the Fraud prevention and detection section of part 2.1.2 Control Results for budget directly implemented by DG CONNECT.

The ENISA Management Board adopted the agency's Anti-Fraud Strategy and an action plan on 28 October 2014. ENISA was involved in an OLAF Workshop "Train the trainers" and

²⁴ For the 'Administrative expenditure cross-subdelegated', the supervision arrangements are based on the principle of controlling 'with' the relevant entity. Being a Commission service itself, the Authorising Officer by delegation (AOD) of the cross-delegated service is required to implement the expenditure/ appropriations subject to the same rules, responsibilities and accountability arrangements, notably on efficiency and cost effectiveness.

²⁵ Subsidies paid to EACEA only.

²⁶ No payments made yet for the Financial Instruments to the EIB in 2015.

nominated an anti-fraud correspondent. As regards the BEREC Office, anti-fraud rules and principles are built into the financial manual, in the internal instructions on ethical behaviour and in the information package to newcomers. The BEREC Office plans to adopt an anti-fraud strategy in the first half of 2016. As regards anti-fraud measures, newcomers are always informed on the principle and they sign the declaration of commitment. All staff members participated in training in January 2016 on Internal Control Standards with special attention to ethical behaviour, where anti-fraud principles and whistleblowing were also discussed.

As regards the AAL Association, fraud is addressed in the Risk Management and Ex-post audit strategy for the AAL Joint Programme agreed between the Commission and the AALA in July 2015. It obliges the national programme management agencies to provide an overview of their audit system (and any changes) allowing the AAL Association to centrally assess control risks. In particular, they provide the AAL Association - and in turn the Commission - information concerning the audit and control procedures to prevent fraud and irregularities, as well as the audit strategy to be deployed by the national funding body, including the methodology to select the grant agreements and the contract to be audited. Where necessary, based on this information, the Commission and the AAL Association may block further payments.

For the PBI financial instrument the asset management has been performed by the EIB. The main principles of fraud prevention are agreed between the Commission and the EIB. Since the project bond financing has been already executed and bonds are transparently traded on the Paris stock exchange, this transparency is considered the central fraud prevention measure.

Conclusion on fraud prevention and detection for expenditure

Overall, given the anti-fraud measures and their implementation along with the other points mentioned it is considered that an effective and adequate fraud prevention and detection system is in place.

D. Reliability of reporting

The DG involvement in the governance of the various entrusted entities did not show any events, issues or problems in the reporting process.

As regards ECSEL, the European Court of Auditors issued a qualified opinion on the accounts of ECSEL for the financial years 2013-2014 on the grounds of not being able to conclude if the ex-post audit strategy provides sufficient assurance with respect to the legality and regularity of underlying transactions. For more details please refer to sections 2.1.3 (sub-section: effectiveness as regards legality and regularity - ECSEL) and 2.2 of this report.

Conclusion on reliability of reporting for expenditure

DG CONNECT considers that, overall, the reporting process of the various entities has been effective and appropriate in 2015. DG CONNECT nevertheless recognizes the importance of the Court's observation concerning ECSEL and will continue to provide its advice and support to the ECSEL JU in its efforts to address all the concerns of the European Court of Auditors and of the budgetary authorities. As explained in the section on effectiveness as regards legality and regularity (2.1.3), the scope and exposure of the FP7 reservation includes the

CONNECT FP7 funds entrusted to AAL JP, Artemis and ENIAC/ECSEL as well as the relevant cross subdelegations (DG RTD). No further legality and regularity issues that would impact DG CONNECT's assurance were reported.

2.1.3 Estimated overall amount at risk

The table below shows the calculation of the amounts at risk which gives an estimate of the overall risk relating to the legality and regularity of the underlying transactions. In case that a specific risk of error rate is not available for a category of expenditure, the average risk of error and amount at risk is presented as a range.

The resulting amount at risk is the AOD best, conservative estimation of the amount of expenditure authorised not in conformity with the applicable contractual and regulatory provisions at the time the payment is made for the year.

It should be noted that this overall presentation does not change the calculation of residual error rates to decide whether to qualify the declaration of assurance with reservations, whenever foreseen in their specific materiality criteria.

DG CONNECT	Scope: payments made (FY; MEUR)	Average Error Rate (AER; %) Between ... and ...		Amount at risk (FY; MEUR ₇) Between ... and ...		Estimated future corrections (MEUR)
		Detected error rate or equival ent				
<i>ABB or other activity-level</i>	<i>as per AAR annex 3, table 2</i>	<i>Detected error rate or equival ent</i>		<i>= (2) x (3)</i>		<i>(Avg % since 2009, applied to TY payments made = 1,3% as per ABAC)</i>
Budget implemented by DG CONNECT						
1- Research Programmes						
H2020	752,34	0,00%	0,13%	0,00	1,01	9,78
FP7	606,66	4,47%	4,47%	27,12	27,12	7,89
CIP	54,22	4,50%	4,50%	2,44	2,44	0,70
Other	69,16	0,11%	0,70%	0,07	0,49	0,90
TOTAL	1.482,37	2,00%	2,09%	29,63	31,05	19,27
2-Non-Research Programmes (Communication Actions, Creative Europe, Connecting Europe Facility and subsidy to the EACEA)						
TOTAL	62,74	0,95%	1,57%	0,59	0,99	0,82
Budget implementation tasks entrusted to other DGs and entities						
1- Implementing Bodies						
EIB - Project Bond Pilot Initiative (PBI)						
Artemis & Eniac (legacy)	88,14	4,47%	4,47%	3,94	3,94	1,15
Ecsel	56,50	0,00%	0,00%	0,00	0,00	0,73

AALA ²⁷	8,17	4,28%	4,28%	0,35	0,35	0,11
Berec	4.02	0,50%	1,00%	0,02	0,04	0,05
Enisa	9.43	0,50%	1,00%	0,05	0,09	0,12
TOTAL	166,25	2,62%	2,66%	4,36	4,42	2,16
2- Cross subdelegations (EMPL, GROW ²⁸ , ESTAT, OP, OIB, SANTE & RTD)	4,20	1,00%	2,00%	0,04	0,08	0,05
cross subdelegation under reservation (RTD)	0,27	4,47%	4,47%	0,01	0,01	0,00
Administrative Expenditure	0,39	0,00%	0,50%	0,00	0,00	0,01
TOTAL	4,86	1,11%	2,02%	0,05	0,10	0,06

TOTAL	1.716,22	2,02%	2,13%	34,64	36,56	22,31
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In the context of the protection of the EU budget, at the Commission's corporate level, the DGs' estimated overall amounts at risk and their estimated future corrections are consolidated. The estimated overall amount at risk²⁹ for the 2015 payments is between 34,6 and 36,6 MEUR. This is the AOD's best, conservative estimation of the amount of expenditure authorised during the year (1716,12 MEUR) not in conformity with the applicable contractual and regulatory provisions at the time the payment is made.

This expenditure will be subsequently subject to ex-post controls and a sizeable proportion of the underlying error will be detected and corrected in successive years. The conservatively estimated future corrections³⁰ for those 2015 payments made are 22,3 MEUR. This is the amount of errors that the DG conservatively estimates to identify and correct from controls that it will implement in successive years.

²⁷ Consists of 7,8 MEUR FP7 and 0.35 MEUR H2020 pre-financing : the error rate is calculated accordingly ($4,28\% = \frac{(8167593 - 7818300) * 0 + 7818300 * 4,47\%}{8167593}$).

²⁸ No payments in 2015.

²⁹ In order to calculate the weighted average error rate (AER) for the total annual expenditure in the reporting year, detected, estimated or proxy error rates have been used (not the Residual Error Rates).

³⁰ This estimate is based on past performance, namely on the average recoveries and financial corrections (ARC) implemented since 2009 and applied to the payments of the year.

2.2 Audit observations and recommendations

This section reports and assesses the observations, opinions and conclusions reported by auditors in their reports as well as the opinion of the Internal Auditor on the state of control, which could have a material impact on the achievement of the internal control objectives, and therefore on assurance, together with any management measures taken in response to the audit recommendations.

Audit Observations and Recommendations by the Internal Audit Service (IAS) and the Internal Audit Capability

IAS's Statement for 2015

In its contribution to the 2015 annual activity report process, IAS concludes that "[...] *the internal control systems audited are overall working satisfactorily although a number of very important findings remain to be addressed in line with the agreed action plans [...]*"

This statement is based on all work undertaken by the IAS in the period 2013-2015, namely,

- Multi-DG audit on Objective Setting process in the context of preparation of the Management Plans (2015)
- Audit on H2020 Grant Management in DG Connect: From the preparation of the Work Programme to the signature of the Grant Agreements (2015)
- Multi DG GAP analysis of legislation regarding Horizon 2020 (2014)
- Limited Review on residual error rate in DG CONNECT (2014)
- Audit on the Implementation of FP7 Control Systems in DG Connect (2014)
- Multi DG audit on SYGMA - Phase 1 - audit on development process in DG CONNECT and DG RTD (2014)

and all work undertaken by the former IAC of DG CONNECT in the same period, namely,

- Audit on Delegated (Externalised) Research (2014)
- Audit on Impact Assessment (2014)
- Audit on Delayed Closure of Projects (2014)
- Audit on Retrospective Evaluation of Policy Initiatives (2014)
- Audit on Risk Assessment (2014)
- Audit on External Communication (2013)
- Audit on Policy Design and Management of IT access rights (2013).

In addition, the statement takes into account that:

- for the accepted recommendations made by the IAS and the IAC in 2013-2015, management has adopted plans to implement them which the IAS considers adequate to address the residual risks identified by the auditors,

- the implementation of these plans is monitored through reports by management and through follow-up audits by the IAS,
- management has assessed a number of action plans not yet followed up by the IAS as implemented, and
- management has not rejected any critical and/or very important recommendations.

The state of play of the implementation of IAS and former IAC recommendations

As of 1 January 2015, following a Commission decision, the Internal Audit Capability (IAC) function was been centralised in the IAS which from that date provided internal audit assurance to all Commission services and Executive Agencies centrally. As part of the handover arrangements of DG CONNECT IACs' core business files to the IAS, the IAS performed a screening exercise on all open IAC recommendations. As resulted from the exercise, the IAS decided to follow-up on only the very important and important IAC recommendations. All IAC recommendations which remained open for more than 5 years (issued prior 1 January 2010) as well as the recommendations rated as desirable were excluded from the screening exercise and were not followed-up by the IAS.

Furthermore, in January 2015, the (former) IAC of DG CONNECT finalised two audits: (1) IAC audit on Delegated (Externalised) Research: 4 important and 1 desirable recommendations (all recommendations were implemented during 2015) and (2) IAC audit on Internal Communication: 3 important recommendations. Due to the fact that all the recommendations following the audit on Internal Communication were downgraded to desirable, the audit was not followed up by the IAS.

In 2015, the IAS performed two audits in DG CONNECT:

(1) IAS audit on H2020 Grant Management in DG CONNECT

The final report was received on 28 September 2015 and concluded that DG CONNECT has set up an efficient and effective internal control system for grant management (from the preparation of the work programme to the signature of the grant agreement) resulting in calls for proposals that effectively support the achievement of the H2020 objectives and enables the DG to select quality research projects which are translated into grant agreements in compliance with the applicable rules.

While the audit did not result in the identification of any critical or very important issues, the IAS considers that there is room for further improvement in the following three specific areas:

- Experts selection and monitoring;
- Internal ex-ante control and monitoring on Grant Agreement preparation phase;
- Monitoring and supervision of activities delegated to executive agencies.

The audit report included 7 recommendations: 4 important and 3 desirable. There was 1 issue for consideration. 5 recommendations are foreseen to be implemented in 2016. 1

desirable recommendation will be implemented in 2017 while 1 important recommendation was already implemented in 2015.

(2) IAS Multi-DG audit on the objective and indicators setting process (in the context of the preparation of the Management Plans)³¹.

The final report was received on 18 December 2015 and concluded that at the operational DG level the internal processes to set, monitor and report on objectives and performance indicators including in the 2015 Management Plans are in place and objectives and performance indicators are derived from the Commission political orientations and translated into general and specific objectives. However, the IAS concludes that the process needs to be further strengthened in order to improve the quality of the indicators and – to a lesser extent – objectives. The audit report included 5 general recommendations (3 very important and 2 important) and 3 specific recommendations (1 very important and 2 important) addressed to DG CONNECT.

The IAS also performed a follow-up audit on 28³² IAC open audit recommendations related to the following audits:

1. Audit on Risk Assessment;
2. Audit on Delegated (Externalised) Research;
3. Audit on Delayed Closure of Projects;
4. Audit on Retrospective Evaluation of Policy Initiatives;
5. Audit on External Communication;
6. Audit on Policy Design and Management of IT access rights.

The follow-up of IAC recommendations by the IAS was completed during December 2015. Out of the 28 IAC recommendations, the IAS considered that 27 were effectively implemented by DG CONNECT. Only 1 important recommendation related to IT access rights (“Granting, revising, withdrawing and revoking access rights” of the IAC audit on Policy Design and Management of IT access rights) was re-opened by the IAS because it was considered as not adequately implemented. A revised action plan has been already defined by DG CONNECT with target date the end of June 2016.

At the end of 2015, DG CONNECT has in total 10 open recommendations (3 very important, 7 important) out of which 4 are overdue (1 very important and 3 important). The three very important recommendations relate to two audits:

³¹ The audit was conducted in SG and DG BUDG for their central role as well as in seven operational DGs/Services (DG CLIMA, DG CONNECT, DG DGT, DG ECHO, DG HOME, DG JUST, DG MARE) and the Executive Agency for Small and Medium-sized Enterprises (EASME).

³² 10 recommendations rated as "very important" and 18 rated as "important".

a) IAS multi-DG audit on Objective Setting process in the context of preparation of the Management Plans (2015)

- Recommendation No 2 - Management Plan ('very important'). Target date: 30/09/2016.
- Recommendation No 3 - Quality of Objectives and Indicators ('very important'). Target date: 29/02/2016.

Based on an analysis of the actions envisaged and the target dates proposed by DG CONNECT, the IAS concluded that the action plan that the DG established to address these audit recommendations is deemed to be satisfactory to mitigate the risks identified.

b) IAC audit on Impact Assessment (2014)

- Recommendation No 2 – IAB opinion of submitted draft IA reports ('very important'). The original target date was 30/09/2015; a revised implementation date has been set for the 30/06/2016, (overdue by 4 months³³, with an expected delay of 9 months³⁴). However, the recommendation is now considered as implemented by the auditee and its status will soon be assessed by the IAS in a future follow-up exercise.

The three open and overdue important recommendations relate to two audits:

a) IAC audit on policy design and management of IT access rights

- Recommendation No 5 – Granting, Revising, withdrawing and revoking access rights – The original target dates was 30/09/2014. As mentioned above, the recommendation was assessed by the IAS as non-adequately implemented and it was subsequently re-opened. A revised action plan has been already defined by the responsible Unit. The new target date for its implementation is 30/06/2016.

b) IAC audit on Impact Assessment (2014)

- Recommendation No 1 – Organisation and resources of IA activities – The original target dates was 31/03/2015. A new revised target date has been set for the 30/06/2016. However, the recommendation is now considered as implemented by the auditee and its status will soon be assessed by the IAS in a future follow-up exercise.
- Recommendation No 3 - Planning/Conducting the IA and Best Practices – The original target dates was 30/11/2014. A new revised target date has been set for 30/06/2016. However, same as above, the recommendation is now considered as implemented by the auditee and its status will soon be assessed by the IAS in a future follow-up exercise.

³³ As of the cut-off date of this report (31 January 2016), i.e. duration between 30/09/2015 and 29/01/2016.

³⁴ Duration between the revised date and the original target date: 30/09/2015 and 30/06/2016.

The remaining 4 open important recommendations relate to two audits:

a) IAS audit on H2020 Grant Management in DG CONNECT

- Recommendation No 1- Executive Agencies: Monitoring and Supervising Arrangements – The original target date is 30/09/2016.
- Recommendation No 2 – Applicable provisions in the Grant Management – The original target date is 31/03/2016.
- Recommendation No 3 – Grant Agreement Preparation – The original target date is 30/06/2016.

b) IAS audit on objective and indicators setting process

- Recommendation No 1 – Allocation of roles and responsibilities in the SPP Cycle- The original target date is 30/09/2016.

Conclusion

As a result of the assessment of the risks underlying the auditors' observations together with the management measures taken or planned in response, the management of DG CONNECT believes that the recommendations issued do not raise any critical assurance implications. There are no IAS or former IAC recommendations which could have a significant impact on the assurance. The actions plans to address these audit recommendations are implemented as foreseen.

All recommendations issued by the IAS are subject to a systematic follow-up and their status of implementation is closely monitored. Monthly updates on the state of implementation of the recommendations were provided to the Audit, Control and Budgetary (ABC) Committee of DG CONNECT chaired by the Director-General.

Audit Observations and Recommendations by the European Court of Auditors (ECA)

Annual Report for 2014

In its Annual Report on the implementation of the budget for the financial year 2014, the European Court of Auditors (ECA) concluded that the most likely error rate for the whole expenditure in the area of the EU activity 'Competitiveness for growth and jobs' was 5,6%.³⁵

This year, for the first time, the Court also states that *"If the information available to the*

³⁵ To note that with its 2014 Annual Report the ECA has aligned its reporting structure with the MFF-headings of the EU Budget for the period 2014-2020. Compared to the 2013 chapter on 'research and other internal policies', the activities covered by the 2014 reporting chapter 'Competitiveness' have therefore been extended notably by inclusion of certain expenditure previously included in the chapter on 'cohesion'.

Commission, national authorities or independent auditors had been used to correct errors, the estimated level of error for this chapter would have been 2.8 percentage points lower.”

As a consequence of the higher error rate, the recommendations in the area of the 'Competitiveness' are the following:

- the Commission, national authorities and independent auditors should use all the relevant information available to prevent, or detect and correct errors before reimbursement;
- based on its experience under the Seventh Research Framework Programme, the Commission [should] develop an appropriate risk management and control strategy for Horizon 2020, including adequate checks of high-risk beneficiaries such as SMEs and new entrants and of costs declared under specific eligibility criteria

The Commission accepted the ECA's recommendations and has already taken appropriate action in order to fully address them.

As regards the first issue, the research family DGs have already developed an extensive communication campaign and consequently provided guidance and feedback to participants and certifying bodies. This was done for FP7, and is being done for H2020.

For FP7 issues, the document listing the 10 most common errors was once more addressed to all participants at the beginning of 2015. For H2020, guidance, and clearer templates have been, and are being, prepared. They are published on the Participant Portal. The simplifications proposed in Horizon 2020 will also make the job of the auditors easier.

At the beginning of 2015, the H2020 communication campaign on legal and financial issues was kicked-off, followed by events in 9 Member States.

During the second semester of 2015, the Common Audit Service, together with the Common Legal Support Service, organised 7 additional one-day events. Over the whole year there were visits to 16 Member States with 2 046 participants. The focus of the campaign was to clearly highlight the novelties of H2020 compared to FP7.

In addition, seven presentations both on FP7 and H2020, attended by 421 participants, were given in 2015. These ran in parallel to the Communication campaign.

With reference to internal communication towards EC colleagues and in line with the requirements of the 'Internal Control Standards for Effective Management - Standard 8: Processes and Procedures', the CAS updated some pages of the CSC intranet site (GoFund) which is used as a central point of reference for all the implementing bodies.

The Commission agrees that an appropriate risk management and control strategy needs to be in place for Horizon 2020 taking into account the risks in the programme, but also the policy aims, especially the need to encourage SMEs and new entrants into the programmes.

Further to the above mentioned recommendations, in its Annual Report for 2014 the ECA assesses that from nine recommendations made in previous reports, three have been fully implemented by the Commission, the remaining six were implemented in most respects. Since the assessment of the implementation of previous recommendations is considered and

where appropriate taken up in the conclusions and recommendations for 2014 further to the above and for the a more detailed response to the previous recommendations it is referred to the Commission's response published together with the Annual Report of the ECA for 2014.

Special Reports

In January 2015 the ECA published a special report on E-commerce (report title "*Has ERDF support to SMEs in the area of e-commerce been effective?*"), which concerned mainly DG REGIO but DG CONNECT contributed, in particular as regards the Digital Agenda for Europe and the ICT innovation voucher scheme. Overall the report resulted in a positive assessment but includes three recommendations which were mostly accepted by the Commission..

Furthermore, in 2015 the ECA progressed with its work on a performance audit on 'Financial Instruments' for which DG CONNECT is partly concerned. According to the time-schedule of the ECA the results will however not be available before mid-2016.

Joint Undertakings

Concerning the two Joint Undertakings (ENIAC and ARTEMIS) which were merged into ECSEL, the ECA issued a qualified opinion on the legality and regularity of transactions underlying the 2013 annual accounts on the grounds of not being able to conclude if the ex-post audit strategy provides sufficient assurance with respect to the legality and regularity of underlying transactions. Based on measures taken during 2014/ 2015 including an additional assessment on the performance of the JUs, in October 2015 the European Parliament granted discharge to the Joint Undertakings for the financial year 2013.

In its Report on the annual accounts for 2014 concerning the three JUs the ECA however reiterated its qualified opinion as regards the sufficient assurance on the ENIAC/ ARTEMIS budget execution. The ECA's qualification is based on a negative assessment of the appropriateness of the audit strategies used by (a sample of) the National Funding Agencies (NFAs) which perform ex-post controls and on which the JUs (partly) rely for their assurance. Further to the validity of the above mentioned measures and performance assessments which finally allowed the European Parliament to grant discharge for 2013, the DG CONNECT will continue its close monitoring of the ECSEL JU in this respect and insist on the continuation of its ongoing efforts to effectively cooperate with the NFAs.

This issue highlighted by the Court will however not impact the ECSEL operations under Horizon 2020 because the JU funding mechanism is no longer linked to the recognition of costs at national level. The EC will perform the audits and the calculation of the error rates. For more details see also section 2.1.3).

2.3 Assessment of the effectiveness of the internal control systems

The Commission has adopted a set of internal control standards, based on international good practice, aimed to ensure the achievement of policy and operational objectives. In addition, as regards financial management, compliance with these standards is a compulsory requirement.

DG CONNECT has put in place the organisational structure and the internal control systems suited to the achievement of the policy and control objectives, in accordance with the standards and having due regard to the risks associated with the environment in which it operates.

DG CONNECT annually assesses the effectiveness of its key internal control systems, including the processes carried out by implementing bodies in accordance with the applicable Commission guidance. The assessment relies on a number of monitoring measures and sources of information including a survey-based management self-assessment; an analysis of the entries in the register of exceptions (ICS 8) including reported cases of non-compliance or other internal control weaknesses (ICS 12), relevant IAS and ECA audit findings and observations and the annual high level risk assessment process (ICS 6).

Effective implementation of the Internal Control Standards

The DG's annual review of its implementation of the Internal Control Standards has been conducted between October and December 2015. Lead units responsible for ensuring compliance with the ICS were asked to provide a contribution on the implementation and effectiveness of the ICS, followed by a quality review by the Compliance Unit. Where needed, the Compliance Unit contacted lead services for further details with respect to both the compliance and effectiveness of the control arrangements in place. This led to a 'top-down' assessment of the DG's internal control status, with respect to both the ICS compliance and the effectiveness of the control arrangements. Furthermore, the 'bottom-up' information on internal control issues received through the AOSDs' Management Reports has been checked for confirmation or any counter-indications. Finally, the IAS's opinion has been taken into account as well.

This analysis enabled the Internal Control Coordinator to report the state of internal control and her recommendations to the Director-General. The effectiveness review carried out in 2015 concluded that all Internal Control Standards were effectively implemented in DG CONNECT. As regards ICS 1 "Mission", the compliance will need to be revisited after the reorganisation which is envisaged in the course of 2016.

Deviations reporting

The functioning of the internal control systems is also monitored throughout the year by means of a systematic registration of exceptions and non-compliance events (under ICS 8) and internal control weaknesses (ICS 12). Generally, in 2015, the total number of deviations reported decreased in comparison with 2014 (63 compared to 85 in 2014). These good figures may be considered as a positive outcome of the regular analysis of the reported cases which raised awareness of the most frequent deviations in the DG. The underlying causes and potential internal control weaknesses behind the reported cases have been

analysed and corrective and alternative mitigating controls have been implemented where and when necessary. The analysis of the underlying reasons of the reported deviations and internal control weaknesses were not considered material enough to merit additional reservations in the Declaration of Assurance.

The annual high level risk assessment

Each year, DGs are required to conduct a risk management exercise as part of the Management Plan process. The exercise is designed to alert managers to possible problems in delivering their mission and objectives and encourage early action in order to anticipate and overcome potential pitfalls. The outcome of this exercise is an obligatory risk register containing the most significant risks at DG level. Senior management identified no critical or cross cutting risk related to its objectives for 2015. The former critical risk relating to the shortage of payment appropriations has been deleted from the risk register as the situation evolved positively and no further critical issues were expected in 2015. The monitoring of the other main risks revealed that the exposure to all of these risks remained under control.

Audit recommendations

DG CONNECT continued its pro-active supervision and frequent reporting, ensuring a timely implementation of all ECA and IAS audit recommendations. The state of implementation of audit recommendations is reported to the senior management on a monthly basis in the ABC meetings. This mechanism has allowed DG CONNECT to significantly improve its performance in the implementation of audit recommendations. For further details see chapter 2.2.

ICS priority 2015

In its Management Plan 2015, DG CONNECT identified the ICS on Processes and Procedures (ICS 8) as a priority standard for further action to increase its effectiveness in 2015. This ICS was prioritised in the context of the start of implementation of Horizon 2020, the creation of the Common Support Centre, externalisation to the executive agencies etc., all involving new processes and working procedures. Documentation of processes and procedures was also essential in view of the new Commission which took office and the new units which joined DG CONNECT in 2015. DG CONNECT focussed on the first requirement of this ICS, i.e., to ensure that the DG's main processes and procedures are adequately documented, and to ensure segregation of duties and comply with applicable provisions. By the end of 2015, the measures proposed to enhance an effective implementation of this ICS were satisfactorily implemented.

Conclusion

The internal control standards are effectively implemented and functioning as intended. In addition, DG CONNECT has taken measures to further improve the effectiveness of its internal control systems in the area of Processes and Procedures (ICS 8). The DG maintains a central register of deviations and performs regularly an analysis of the reported cases. DG CONNECT's main risks are reported in the central risk register and regularly monitored. The implementation of IAS and ECA audit recommendations is reported on a monthly basis to senior management ensuring a timely implementation.

The DG generally complies with the three assessment criteria for effectiveness; i.e. (a) staff having the required knowledge and skills, (b) systems and procedures designed and implemented to manage the key risks effectively, and (c) no instances of ineffective controls that have exposed the DG to its key risks except for the FP7 and CIP ICT PSP error rates for which reservations are made. DG CONNECT therefore concludes that there is no further impact on the assurance.

2.4 Conclusions as regards assurance

This section reviews the assessment of the elements reported above (in section 2.1,2.2 and 2.3) and draws conclusions supporting the declaration of assurance and whether it should be qualified with reservations.

These reports result from a systematic analysis of the evidence available. This approach provides sufficient guarantees as to the completeness and reliability of the information reported and results in a complete coverage of the budget delegated to the Director-General of DG CONNECT.

The statement of assurance is based on the analysis of the internal control system established in DG CONNECT supported by the conclusions of the audits from the IAS and ECA which did not highlight any critical recommendation, the IAS opinion, the full compliance with the Internal Control Standards and the reports received from cross delegated Authorising Officers by Delegation, the INEA, REA and EASME Executive Agencies, the EIB, the ECSEL Joint Undertaking, the Ambient Assisted Living Joint Programme and the BEREC and ENISA Decentralised Agencies.

Concerning the financial operations under FP7, as the estimated residual error rate is above 2%, which is the materiality criterion for this programme, DG CONNECT, in accordance with the other members of the Research Family will maintain a reservation for FP7 expenditure.

For the financial operations under CIP ICT PSP, the results of the ex-post audits show that the detected error rates calculated over the last years are increasing. As it is expected that the 2% residual error rate target at the end of the programming period for CIP ICT PSP will not be attained, a reservation is made.

FP7 reservation

For FP7, the representative error rate from the Common Representative audit Sample (CRAS), based on 298 results out of a sample of 324, is 4,47%. The Residual Error Rate based on the CRAS is 2,58%. The estimated amount at risk is 33,8 MEUR.

Taking into account the FP6 experience, and the need to balance legality and regularity with other objectives such as the attractiveness and the success of EU research policy, international competitiveness, scientific excellence, the wish to encourage participation of SMEs and the costs of controls, it is not expected that by the end of the programming period the Residual Error Rate will be below the materiality threshold defined in Annex 4 'Materiality Criteria'. For that reason, DG CONNECT maintains the reservation for FP7.

Action plan to address the reservation for FP7

The following framework conditions need to be borne in mind when considering remedial actions to further reduce the error rate under FP7:

A. Legal Framework

All of the contracts have been already signed under FP7, so further modification of the legal

framework for FP7 is no longer an option. Over the course of FP7, however, the Commission has attempted to simplify the system within the existing legal framework.

Horizon 2020 includes a radical simplification of the legal framework for the Framework Programme for Research and Innovation (2014-2020), in order to meet the expectations of both stakeholders and legislative authorities.

B. Continued control and audit

The Common Audit Service (CAS) will carry out an appropriate number of ex-post audits based on cost-effectiveness considerations, as referred to above, together with the subsequent recovery actions to ensure a further reduction of the residual error rate. However, it cannot greatly extend its audit campaign without adversely affecting the other objectives of the research programme (attractiveness, reduction of administrative burden, widening, etc.)

Within these framework conditions and constraints, the remaining scope to reduce errors will be addressed through the following actions:

- Continuing its on-going efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring;
- Continuing its control and audit work in order to further reduce the FP7 residual error rate (CAS). So as to reinforce the cleaning effect of the ex-post controls, a third Common Representative Audit Sample will be launched in 2016.

- Continuing its efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring.

CIP ICT PSP reservation

For CIP, the cumulative error rate is based on 38 audits covering 18,5 MEUR, 5,2% of the claimed amounts. The resulting representative error rate of 4,50% should therefore be considered with caution. In 2015, 64 new non risk-based CIP audits were launched which should enable to further increase the sample for the error rate calculation in the future.

The residual error rate amounts to 4,42% and exceeds the materiality threshold of 2%. Taking into account that all measures decided to lower the error rate for FP7 have also been applied for the CIP and considering the need to balance legality and regularity with other objectives such as the attractiveness of the programme, cost of control, etc, it is not expected that by the end of the programming period the Residual Error Rate will be below the materiality threshold defined in Annex 4 'Materiality Criteria'. For that reason, DG CONNECT makes a reservation for CIP ICT PSP.

Action plan to address the reservation for CIP ICT PSP

As for FP7, it should be noted that the first projects for Horizon 2020 are already up and running and that all of the contracts have been already signed under CIP, so further modification of the legal framework is no longer an option.

Horizon 2020 includes a radical simplification of the legal framework for the Framework

Programme for Research and Innovation (2014-2020) which integrates CIP, in order to meet the expectations of both stakeholders and legislative authorities.

However, in order to further reduce the residual error rate of CIP ICT PSP, the DG will continue carrying out ex-post audits in line with the non-research ex-post control strategy and will continue its efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring.

Overall Conclusion

In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director General, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance qualified by a reservation concerning the rate of the residual errors with regard to the accuracy of cost claims in the Seventh Research Framework Programme (FP7) and a reservation concerning the rate of the residual errors with regard to the accuracy of cost claims in the ICT Policy Support Programme of the Competitiveness and Innovation framework Programme (CIP ICT PSP).

3. Declaration of Assurance and reservations

I, the undersigned, Roberto Viola

Director-General of the Communication Networks, Content & Technology Directorate-General

In my capacity as authorising officer by delegation.

Declare that the information contained in this report gives a true and fair view³⁶.

State that I have reasonable assurance that the resources assigned to the activities described in this report have been used for their intended purpose and in accordance with the principles of sound financial management, and that the control procedures put in place give the necessary guarantees concerning the legality and regularity of the underlying transactions.

This reasonable assurance is based on my own judgement and on the information at my disposal, such as the results of the self-assessment, ex-post controls, the opinion of the Internal Auditor on the state of control, the observations of the Internal Audit Service and the lessons learnt from the reports of the Court of Auditors for years prior to the year of this declaration.

Confirm that I am not aware of anything not reported here which could harm the interests of the institution.

However the following reservations should be noted:

Reservations concerning the rate of residual errors with regard to the accuracy of costs claims for grants in the 7th Research Framework Programme and the ICT Policy Support Programme of the Competitiveness and Innovation framework Programme (CIP ICT PSP).

Brussels,

Roberto Viola

³⁶ True and fair in this context means a reliable, complete and correct view on the state of affairs in the DG.

Reservation 1. Concerning the rate of the residual errors with regard to the accuracy of cost claims in the Seventh Research Framework Programme (FP7).

DG	DG CONNECT
Title of the reservation, including its scope	Reservation concerning the rate of the residual errors with regard to the accuracy of cost claims under the Seventh Research Framework Programme (FP7).
Domain	Grants in the Seventh Research Framework Programme.
ABB activity and amount affected ("scope")	FP7 payments made by DG CONNECT in 2015 (09.04.52) including the budget of DG CONNECT entrusted to AAL, Artemis and ENIAC/Ecsel as well as the relevant crossed subdelegations (RTD) : 703,1MEUR from the €1.571,9 MEUR total for ABB 09.04.
Reason for the reservation	At the end of 2015, the residual error rate is not below the materiality threshold. It is not expected that the residual error rate will be below the 2% threshold at the end of the programming period.
Materiality criterion/criteria	<p>The materiality criterion is the residual error rate, i.e. the level of errors that remains undetected and uncorrected, by the end of the management cycle.</p> <p>The control objective is to ensure that the residual error rate on the overall population is below 2% at the end of the management cycle. As long as the residual error rate is not below 2% at the end of a reporting year within the FP's management lifecycle, a reservation would be made.</p>
Quantification of the impact (= actual exposure")	The maximum impact is calculated by multiplying the residual error rate in favour of the Commission by the amount of FP7 interim and final payments based on cost statements authorised in 2015 by DG CONNECT plus the amount of the pre-financing expenditure cleared in 2015. The Representative Error Rate for 2015 is 4,47%. The Residual Error Rate is 2,58%. The estimated amount at risk is 33,8 MEUR. (33,8 MEUR=2,58%*1.311 MEUR)
Impact on the assurance	Legality and regularity of the affected transactions, i.e. exclusively payments made against cost claims (interim payments and final payments). The assurance is affected within the scope of the quantified budgetary impact (the net amount at risk estimated at 33,8 MEUR).
Responsibility for the weakness	<p>The main reason for errors is :</p> <ul style="list-style-type: none"> -the complexity of the eligibility rules as laid down in the basic acts decided by the Legislative Authorities, based on the reimbursement of actual eligible costs declared by the beneficiaries; -the fact that there are many thousands of beneficiaries making claims, and not all can be fully controlled. <p>The different control provisions set out by the Commission services, along with the audit certificates on financial statements and ex-post audits, can mitigate these risks to a certain extent, but can never be carried out on 100% of the cost claims received.</p>

Responsibility for the corrective action	<p>The possibilities to simplify the FP7 rules have been exhausted, although there is some evidence that the simplification measures introduced in 2011 have had a positive impact on the error rate. The remaining scope to reduce errors will be addressed in particular through the following actions:</p> <ul style="list-style-type: none"> -continuing the on-going efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring; -continuing with the control and audit work in order to further reduce the FP7 residual error rate. A third common representative audit sample has been launched.
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Reservation 2. Concerning the rate of the residual errors with regard to the accuracy of cost claims in the ICT Policy Support Programme (PSP) of the Competitiveness and Innovation framework Programme (CIP).

DG	DG CONNECT
Title of the reservation, including its scope	Reservation concerning the rate of the residual errors with regard to the accuracy of cost claims in the ICT Policy Support Programme (PSP) of the Competitiveness and Innovation framework Programme (CIP).
Domain	Direct management grants in the Competitiveness and Innovation framework Programme (CIP)
ABB activity and amount affected ("scope")	CIP ICT PSP payments made by DG CONNECT in 2015 (54,2MEUR from the €1.571,9 MEUR total for ABB 09.04)
Reason for the reservation	At the end of 2015, the residual error rate is not below the materiality threshold. It is not expected that the residual error rate will be below the 2% threshold at the end of the programming period.
Materiality criterion/criteria	<p>The materiality criterion is the residual error rate, i.e. the level of errors that remains undetected and uncorrected, by the end of the management cycle.</p> <p>The control objective is to ensure that the residual error rate on the overall population is below 2% at the end of the management cycle. As long as the residual error rate is not (yet) below 2% at the end of a reporting year within the FP's management lifecycle, a reservation would be made.</p>
Quantification of the impact (= actual exposure)	<p>The maximum impact is calculated by multiplying the residual error rate in favour of the Commission by the amount of interim and final payments based on cost statements authorised in 2015 by DG CONNECT plus the amount of the pre-financing expenditure cleared in 2015. The Cumulative Error Rate for 2015 is 4,50%, while the Residual Error Rate is 4,42%. The estimated amount at risk for 2015 payments is 4,7 MEUR. (4,7 MEUR=4,42%*106,1 MEUR)</p> <p>However, given the low number of audits used to determine the cumulative and the residual error rates (38 ex-post audits covering 18,5 MEUR representing 5,2% of the requested EU contribution), the above mentioned error rates should be considered with caution.</p>

	It is nevertheless expected that the 2% residual error rate target at the end of the programming period for CIP ICT PSP will not be attained.
Impact on the assurance	Legality and regularity of the affected transactions, i.e. exclusively payments made against cost claims (interim payments and final payments). The assurance is affected within the scope of the quantified budgetary impact (the net amount at risk estimated at 4,7 MEUR).
Responsibility for the weakness	The Legislative Authorities for the funding rules in the basic acts which are complex, the beneficiaries and the certifying auditors for the incorrectness of cost claims and audit certificates, and the Commission services for the management and control systems in place.
Responsibility for the corrective action	The first projects for Horizon 2020 are already up and running and that all of the contracts have been already signed under CIP, so further modification of the legal framework is no longer an option. Horizon 2020 includes a radical simplification of the legal framework, in order to meet the expectations of both stakeholders and legislative authorities. However, in order to further reduce the residual error rate of CIP ICT PSP, DG CONNECT will continue carrying out ex-post audits in line with the ex-post control strategy (64 new non-risk based CIP audits have been launched in 2015) and will continue its efforts to give guidance and feedback to the participants and certifying auditors to prevent errors occurring.

Annexes

ANNEX 1: Statement of the Resources Director

I declare that in accordance with the Commission's communication on clarification of the responsibilities of the key actors in the domain of internal audit and internal control in the Commission³⁷, I have reported my advice and recommendations to the Director-General on the overall state of internal control in the DG.

I hereby certify that the information provided in Section 2 of the present AAR and in its annexes is, to the best of my knowledge, accurate and exhaustive.

Brussels,

[Signed in ARES]

Gail Kent

Director R Support, Internal Control Coordinator

³⁷ Communication to the Commission: Clarification of the responsibilities of the key actors in the domain of internal audit and internal control in the Commission; SEC(2003)59 of 21.01.2003.

ANNEX 2: Human and financial resources

Human Resources by ABB activity			
ABB Activity	Establishment Plan posts	External Personnel	TOTAL
Horizon 2020	400	150	550
Regulatory framework for the Digital Agenda	147	32	179
Policy strategy and coordination	100	44	144
Management	97	27	124
Connecting Europe Facility (CEF) – Telecommunications networks	31	17	48
Creative Europe	18	2	20
TOTAL	793	272	1.065

Financial Resources (€) (in C1 commitment appropriations)

Activity	Operational Expenditure*	Administrative Expenditure	TOTAL
Regulatory framework for the Digital Agenda (including copyright 12.0201)	19.164.993	813.524	19.978.518
Connecting Europe Facility (CEF) - telecommunications networks	47.477.788	1.511.664	48.989.452
Horizon 2020	1.328.617.683	48.347.144	1.376.964.827
Creative Europe**	33.104.059	9.963.023	43.067.082
Policy strategy and coordination for the Directorate-General for 'Communications networks, content and technology'		6.182.721	6.182.721

Management of the Directorate-General for Communications networks, content and technology'		12.148.343	12.148.343
TOTAL	1.428.364.524	78.966.420	1.507.330.944

* does not include appropriations implemented by Executive Agencies

** includes Multimedia Actions (Budget line16.0301)

EXECUTION OF COMMITMENT AND PAYMENT APPROPRIATIONS			
Other decentralised management expenditure - 09.010211.00.01 to 09.010211.00.06			
Code Activity	Activity	Execution of C1 commitment appropriations	Execution of C1 Payment appropriations
BGUE-B2015-09.010211.00.01.10	Mission expenses	850.958,00	739.759,42
BGUE-B2015-09.010211.00.01.30	Representation costs	7.000,00	5.585,48
BGUE-B2015-09.010211.00.02.20	Meeting expenses (for external experts)	276.000,00	248.058,17
BGUE-B2015-09.010211.00.02.40	Conference costs	142.005,53	93.983,67
BGUE-B2015-09.010211.00.03	Committee meetings	126.000,00	103.810,20
BGUE-B2015-09.010211.00.04	Studies & consultations	473.229,96	165.557,93
BGUE-B2015-09.010211.00.05	Information systems	75.000,00	54.524,72
BGUE-B2015-09.010211.00.06	Further training	142.883,49	102.929,10
	TOTAL	2.093.076,98	1.514.208,69

ANNEX 3: Draft annual accounts and financial reports – See separate document

ANNEX 4: Materiality criteria

The Standing Instructions for the preparation of annual activity reports stipulate that the quantitative materiality threshold must not exceed 2% of the authorised payments of the reporting year of the ABB expenditure. However, the Guidance on AARs also allows a multi-annual approach, especially for budget areas (e.g. programmes) for which a multi-annual control system is more effective. In such cases, the calculation of errors, corrections and materiality of the residual amount at risk should be done on a "cumulative basis" on the basis of the totals over the entire programme lifecycle.

Because of its multiannual nature, the effectiveness of the Research services' control strategy can only be fully measured and assessed at the final stages in the life of the framework programme, once the ex-post audit strategy has been fully implemented and systematic errors have been detected and corrected.

In addition, basing materiality solely on ABB expenditure for one year may not provide the most appropriate basis for judgements, as ABB expenditure often includes significant levels of pre-financing expenditure (e.g. during the initial years of a new generation of programmes), as well as reimbursements (interim and final payments) based on cost claims that 'clear' those pre-financings. Pre-financing expenditure is very low risk, being paid automatically after the signing of the contract with the beneficiary.

The general control objective for the Research services, following the standard quantitative materiality threshold proposed in the Standing Instructions, is to ensure for each FP and the Non research/ CIP ICT PSP for DG CONNECT, that the residual error rate, i.e. the level of errors which remain undetected and uncorrected, does not exceed 2% by the end of the FP's management cycle. The question of being on track towards this objective is to be (re)assessed annually, in view of the results of the implementation of the ex-post audit strategy and taking into account both the frequency and importance of the errors found as well as a cost-benefit analysis of the effort needed to detect and correct them.

Notwithstanding the multiannual span of their control strategy, the Director-Generals of the Research DGs (and the Directors of ERCEA and REA) are required to sign a statement of assurance for each financial reporting year. In order to determine whether to qualify this statement of assurance with a reservation, the effectiveness of the control systems in place needs to be assessed not only for the year of reference but also with a multiannual perspective, to determine whether it is possible to reasonably conclude that the control objectives will be met in the future as foreseen. In view of the crucial role of ex-post audits defined in the common FP7 audit strategy and the non-research audit strategy, this assessment needs to check in particular whether the scope and results of the ex-post audits carried out until the end of the reporting period are sufficient and adequate to meet the multiannual control strategy goals.

The criteria for making a decision on whether there is material error in the expenditure of the DG or service, and so on whether to make a reservation in the AAR, will therefore be principally, though not necessarily exclusively, based on the level of error identified in ex-post audits of cost claims on a multi-annual basis.

DG CONNECT managed in 2015 financial operations under other programmes and actions which have been addressed by the DG's CIP ICT PSP/SI audit strategy. The audit strategy imposes the same materiality criteria as for the FP managed by the DG.

Effectiveness of controls

The starting point to determine the effectiveness of the controls in place is the cumulative level of error expressed as the percentage of errors in favour of the EC, detected by ex-post audits, measured with respect to the amounts accepted after ex-ante controls.

However, to take into account the impact of the ex-post controls, this error level is to be adjusted by subtracting:

- Errors detected corrected as a result of the implementation of audit conclusions.
- Errors corrected as a result of the extrapolation of audit results to non-audited contracts with the same beneficiary.

For FP7, this results in a residual error rate, which is calculated in accordance with the following formula:

$$\text{ResER}\% = \frac{(\text{RepER}\% * (P - A)) - (\text{RepERSys}\% * E)}{P}$$

Where:

ResER% residual error rate, expressed as a percentage.

RepER% representative error rate, or error rate detected in the common representative sample, expressed as a percentage. For FP 7 this rate is the same for all Research services.

RepERSys% portion of the RepER% representing (negative) systematic errors, expressed as a percentage. The RepER% is composed of two complementary portions reflecting the proportion of negative systematic and non-systematic errors detected.

P total aggregated amount in € of EC share of funding in the auditable population. In FP7, the population is that of all received cost statements, and the € amounts those that reflect the EC share included in the costs claimed in each cost statement.

A total EC share of all audited amounts, expressed in €. This will be collected from audit results.

E total non-audited amounts of all audited beneficiaries. In FP7, this consists of the total EC share, expressed in €, of all non-audited received cost statements for all audited beneficiaries (excluding those beneficiaries for which an extrapolation is ongoing).

For the CIP ICT PSP, the calculation of the residual error rate is done according to the same principles as for the FP7 error rate, as follows:

$$\text{REsER\%} = \frac{\text{CumER\%} * (\text{P}-\text{A}) - \text{Ex}}{\text{P}}$$

Where:

ResER% residual error rate, expressed as a percentage.

CumER% cumulative error rate detected in the non-risk based audit sample.

P The P represents the requested EU contribution until the moment when the error rate is calculated.

A The value of the EU contribution of all audited amounts, expressed in Euros.

Ex The value of the implemented extrapolations in the CIP programme in DG CONNECT.

If the residual error rate is not (yet) below 2% at the end of a reporting year within the programme's, a reservation must be considered.

Nevertheless, the Director-General must also take into account other information when considering if the overall residual error rate is a sufficient basis on which to draw a conclusion on assurance (or make a reservation). This may include the results of other ex-post audits, ex-ante controls, risk assessments, audit reports from external or internal auditors, etc. All this information may be used in assessing the overall impact of a weakness and considering whether to make a reservation or not.

For FP7, if the Common Representative Audit Sample (CRAS) results are not used as the basis for calculating the residual error rate this must be clearly disclosed in the AAR, along with the details of why and how the final judgement as made.

In case a calculation of the residual error rate based on a representative sample is not possible for a programme for reasons not involving control deficiencies³⁸, the consequences are to be assessed quantitatively by making a best estimate of the likely exposure for the reporting year based on all available information. The relative impact on the Declaration of Assurance would be then considered by analysing the available information on qualitative grounds and considering evidence from other sources and areas. This should be clearly explained in the AAR.

Adequacy of the audit scope

The quantity of the (cumulative) audit effort carried out until the end of each year is to be measured by the actual volume of audits completed. The data is to be shown per year and cumulated, in line with the current AAR presentation of error rates. The multiannual planning and results should be reported in sufficient detail to allow the reader to form an

³⁸ Such as, for instance when the number of results from a statistically-representative sample collected at a given point in time is not sufficient to calculate a reliable error rate.

opinion on whether the strategy is on course as foreseen.

The Director-General (or Director for the Executive Agencies) should form a qualitative opinion to determine whether deviations from the multiannual plan are of such significance that they seriously endanger the achievement of the internal control objective. In such case, she or he would be expected to qualify his annual statement of assurance with a reservation.

In 2015, DG CNECT managed financial operations under H2020 which is managed under a different set of regulatory and financial provisions. Therefore, the assessment of the performance of the internal controls has to take into account these differences. For H2020, very few payments against cost claim have been made and no audit has been carried out, this no error rate has been calculated.



ANNEX 5a: Internal Control Templates for budget implementation (ICTs)

Grants direct management – FP7 and H2020

Stage 1: Programming, evaluation and selection of proposals

A - Preparation, adoption and publication of the Annual Work Programme and Calls for proposals

Main control objectives: Ensuring that the most promising projects for meeting the policy objectives are among the proposals submitted;
Compliance; Prevention of fraud

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
The annual work programme and the subsequent calls for proposals do not adequately reflect the policy objectives,	Hierarchical validation within the authorising department Inter-service consultation, including	Coverage / Frequency: 100% Depth:	Costs: estimation of cost of staff involved in the preparation and validation of the annual	% of "over-subscription" proposals

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>priorities, are incoherent and/or the essential eligibility, selection and award criteria are not adequate to ensure the evaluation of the proposals.</p> <p>The annual work programmes are not consistent within the Research family and with the 7 years' framework</p> <p>The programme H2020 implementation (procedures, monitoring arrangements, communication with beneficiaries, budget planning, etc.) is not consistent within the Research family and with the 7 years' framework</p>	<p>all relevant services Adoption by the Commission Explicit allocation of responsibility.</p> <p>The Common Support Centre in RTD provides all the members of the Family with harmonised procedures, guidance and IT tools. DG RTD centralises the budget planning and the monitoring of the H2020's budget implementation</p>	<p>All work programmes are thoroughly reviewed at all levels, including for operational and legal aspects.</p> <p>Coverage/ Frequency: 100% Depth All the underlying implementation tools are defined et developed at family level.</p>	<p>work programme and calls.</p> <p>Benefits: Only qualitative benefits. A good Work Programme and well publicised calls should generate a large number of good quality projects, from which the most excellent can be chosen. There will therefore be real competition for funds.</p> <p>Costs: costs of the staff involved in Family coordination activities</p> <p>Benefits: Qualitative benefits: Optimised procedures, common approach on multiple issues (audits, fraud, legal aspects, reporting...); better reporting on the whole programme – better</p>	<p>received/selected</p>

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
			management of the programme. ³⁹	

B - Selecting and awarding: Evaluation, ranking and selection of proposals

Main control objectives: Ensuring that the most promising projects for meeting the policy objectives are among the proposals selected; Compliance; Prevention of fraud

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
The evaluation, ranking and selection of proposals is not carried out in accordance with the established procedures, the policy objectives, priorities and/or the essential eligibility, or with the selection and award criteria defined in the annual work programme and	Selection and appointment of expert evaluators Assessment by independent experts Comprehensive IT system supporting the stage and allowing better monitoring of the	100% vetting (including selecting) of experts for technical expertise and independence (e.g. conflicts of interests, nationality bias, ex-employer bias, collusion) 100% of proposals are evaluated.	Costs: estimation of cost of staff involved in the evaluation and selection of proposals. Cost of the appointment of experts and of the logistics of the evaluation. Benefits:	% of number of (successful) redress challenges / total number of proposals received Average time to publication of selection results (FR 128.2 and/or Horizon 2020 limits)

³⁹ The mutualisation of the support services represents a quantitative benefit which is certain but not accurately quantifiable in the context of reorganisations, new programme's setting up, general HR offsetting through the Commission.

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
subsequent calls for proposals.	<p>process</p> <p>Validation by the AOSD of ranked list of proposals. In addition, if applicable: Opinion of advisory bodies; comitology; inter-service consultation and adoption by the Commission; publication</p> <p>Systematic checks on operational and legal aspects performed before signature of the grant agreement</p> <p>Evaluation review procedure</p>	<p>Coverage: 100% of ranked list of proposals. Supervision of work of evaluators. 100% of contested decisions are analysed by redress committee</p>	<p>Qualitative benefits</p> <p>Expert evaluators from outside the Commission bring independence, state of the art knowledge in the field and a range of different opinions. This will have an impact on the whole project cycle : better planned, better implemented projects</p>	<p>% of time-to-inform on time</p> <p>cost of evaluating + selecting grants / value of grants contracted</p> <p>% of budget "over-subscription" from proposals received</p>

Stage 2: Contracting

Main control objectives: : Ensuring that the most promising projects for meeting the policy objectives are among the proposals contracted; SFM (optimal allocation of the budget available); Compliance; Prevention of fraud

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The description of the action in the grant agreement includes tasks which do not contribute to the achievement of the programme objectives. and/or that the budget foreseen overestimates the costs necessary to carry out the action.</p> <p>The beneficiary lacks operational and/or financial capacity to carry out the actions.</p> <p>Procedures do not comply with regulatory framework.</p> <p>The evaluation stage hasn't detected a potentially fraudulent proposal/beneficiary.</p>	<p>Project Officers implement evaluators' recommendations.</p> <p>Hierarchical validation of proposed adjustments.</p> <p>Validation of beneficiaries (operational and financial viability).</p> <p>Systematic checks on operational and legal aspects performed before signature of the GA</p> <p>Ad hoc anti-fraud checks for riskier beneficiaries</p> <p>Signature of the grant agreement by the AO.</p> <p>Financial verification where necessary</p> <p>Participant Guarantee Fund.</p>	<p>100% of the selected proposals and beneficiaries are scrutinised.</p> <p>Coverage: 100% of draft grant agreements.</p> <p>Depth may be differentiated; determined after considering the type or nature of the beneficiary (e.g. SMEs, joint-ventures) and/or of the modalities (e.g. substantial subcontracting) and/or the total value of the grant.</p> <p>Note that, given the constraints on the time</p>	<p>Costs: estimation of cost of staff involved in the contracting process.</p> <p>Benefits: Qualitative benefits: The whole committed budget checked for quality (prevention of later errors). This stage should lead to a higher assurance on the achievement of the projects – and policy objectives.</p>	<p>% reduction in the EC contribution as a result of the negotiation process</p> <p>Average Time to Sign (FR 128.2)</p> <p>% of Time-to-Sign on time</p> <p>Average time to grant (FR 128.2)</p> <p>% of Time-to-grant on time</p> <p>% cost over annual amount contracted</p>

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
		to grant set out in the H2020 legislation, “negotiation” of projects is kept to a minimum, as far as possible the positively evaluated projects are accepted without modification.		

Stage 3: Monitoring the implementation

Main control objectives: ensuring that the operational results (deliverables) from the projects are of good value and meet the objectives and conditions; ensuring that the related financial operations comply with regulatory and contractual provisions; prevention of fraud; ensuring appropriate accounting of the operations

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
The actions foreseen are not, totally or partially, carried out in accordance with the technical description and requirements foreseen in the grant agreement.	Kick-off meetings and "launch events" involving the beneficiaries in order to avoid project management and reporting errors	100% of the projects are controlled, including only value-adding checks. Riskier operations subject to more in-depth controls.	Costs: estimation of cost of staff involved in the actual management of running projects. Benefits: budget value of the costs claimed by the beneficiary, but rejected by staff	Average number & value of running projects managed 'per' staff FTE
The amounts paid exceed what is due in accordance with the applicable contractual and regulatory provisions.	Effective external communication about guidance to the beneficiaries	The depth depends on risk criteria. However, as a deliberate policy to reduce administrative burden, and to ensure a good balance between trust and control, the level of control at this stage is reduced to a minimum	Reductions in error rates identified by audit certificates.	Time-to-pay: % of payments made on time
The cost claims are irregular or fraudulent .	Anti-fraud awareness raising training for the project officers		Benefits due to operational review of projects and consequent corrective actions imposed on projects	Time-to pay: Average nb days net/gross + suspension days
Lack of harmonised approach within the family with the consequence of unequal treatment of the beneficiaries	Enhanced family approach (anti-fraud cooperation; common legal and audit service; comprehensive and common IT system	High risk operations identified by risk criteria. Red flags: suspicions		cost of control from contracting and monitoring the execution up to payment included/ amount paid (%) Average project mngt

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
	<p>for all the family)</p> <p>Operational and financial checks in accordance with the financial circuits. Operation authorisation by the AO For riskier operations, more in-depth ex-ante controls</p> <p>Selection and appointment of expert for scientific reviews of intermediate and/or final reporting</p> <p>If needed: application of Suspension/interruption of payments, Penalties or liquidated damages. Referring case to OLAF</p>	<p>raised by staff, audit results, EWS, individual or "population" risk assessment Audit certificates required for any beneficiary claiming more than €375000 (FP7)/€325 000 (H2020).</p>		<p>cost (staff FTE * standard staff cost) per running* project</p>

Stage 4: Ex-post controls

A - Reviews, audits and monitoring

Main control objectives: Measuring the level of error in the population after ex-ante controls have been undertaken; detect and correct any error or fraud remaining undetected after the implementation ex-ante controls; identifying possible systemic weaknesses in the ex-ante controls, or weaknesses in the rules

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The ex-ante controls (as such) do not prevent, detect and correct erroneous payments or attempted fraud to an extent going beyond a tolerable rate of error.</p> <p>Lack of consistency in the audit strategy within the family.</p> <p>Lack of efficiency for absence of coordination: multiple audits on the same beneficiary, same programme: reputational risk and high administrative burden on the beneficiaries' side.</p>	<p>Common Ex-post control strategy for the entire Research family (H2020), implemented by a central service (Common Support Centre, DG RTD):</p> <ul style="list-style-type: none"> - At intervals carry out audits of a representative sample of operations to measure the level of error in the population after ex-ante controls have been performed - Additional sample to address specific risks - when relevant, joint audits with the Court of Auditors <p>Multi-annual basis (programme's lifecycle) and coordination with other AOs concerned</p>	<ul style="list-style-type: none"> - Common Representative audit Sample (CRaS): MUS sample across the programme to draw valid management conclusions on the error rate in the population. - RTD risk-based sample, determined in accordance with the selected risk criteria, aimed to maximise deterrent effect and prevention of fraud or serious error 	<p>Costs: estimation of cost of staff involved in the coordination and execution of the audit strategy .Cost of the appointment of audit firms for the outsourced audits.</p> <p>Benefits: budget value of the errors detected by the auditors.</p> <p>Non quantifiable benefits: Deterrent effect. Learning effect for beneficiaries. Improvement of ex-ante controls or risk approach</p>	<p>Representative error rate.</p> <p>Residual error rate in comparison to the materiality threshold.</p> <p>Amount of errors and corrections concerned.</p> <p>Number of audits finalised (+ % of beneficiaries & value coverage)</p> <p>cost of control ex post audits/ value of grants</p>

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
	<p>Validate audit results with beneficiary</p> <p>In case of systemic error detected, extrapolation to all the projects run by the audited beneficiary</p> <p>If needed: referring the case to OLAF</p>		<p>in ex-ante controls by feeding back findings from audit.</p> <p>Improvement in rules and guidance from feedback from audit.</p>	<p>audited</p>

B - Implementing results from ex-post audits/controls

Main control objectives: Ensuring that the (audit) results from the ex-post controls lead to effective recoveries; Ensuring appropriate accounting of the recoveries made

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The errors, irregularities and cases of fraud detected are not addressed or not addressed in a timely manner</p>	<p>Systematic registration of audit / control results to be implemented and actual implementation. Validation of recovery in accordance with financial circuits. Authorisation by AO Notification to OLAF and regular follow up of detected fraud.</p>	<p>Coverage: 100% of final audit results <i>with a financial impact</i>. Depth: All audit results are examined in-depth in making the final recoveries. Systemic errors are extrapolated to all the non-audited projects of the same beneficiary</p>	<p>Costs: estimation of cost of staff involved in the implementation of the audit results. Benefits: budget value of the errors, detected by ex-post controls, which have actually been corrected (offset or recovered). Loss: budget value of such ROs which are 'waived' or have to be cancelled.</p>	<p>Amounts being recovered and offset Number/value/% of audit results pending implementation Number/value/% of audit results implemented.</p>

ANNEX 5b: Internal Control Templates for budget implementation (ICTs)

Indirect entrusted management DG CONNECT

The ICT covers: (1) the executive agencies EACEA, INEA, REA and EASME (the two latter for H2020)⁴⁰ (2) cross subdelegations to other Commission services (3) the joint undertaking ESCEL (4) Ambient Assisted Living Joint Programme Association, (5) Agencies and other bodies (BEREC Office & ENISA).

Stage 1: Establishment (or prolongation) of the mandate to the entrusted entity (“delegation act”/ “contribution agreement” / etc).

Main control objectives: Ensuring that the legal framework is fully compliant and regular (legality & regularity), delegated to an appropriate entity (best value for public money, economy, efficiency), without any conflicts of interests (anti-fraud strategy), and gives all the references necessary for a smooth running of the new entity.

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
The establishment (or prolongation) act of the mandate of the entrusted entity lacks clear references regarding the responsibilities of each involved actor. For PPPs: the evaluation	Ex-ante evaluation Widespread consultation, internally and with external stakeholders. Hierarchical validation within the authorising department Inter-service consultation, including all relevant DG. Adoption by the Commission	Coverage/Frequency: 100%/once for the establishment and partial for amendments or extensions.	Costs: This stage implies several DGs, doesn't happen regularly and can be very different for each entity. A systematic cost calculation wouldn't give exploitable data Benefits: Benefits cannot	Overall supervision cost per (type of) entrusted entity (%)

⁴⁰ The contribution of DG CONNECT to the administrative budget of the executive agencies is removed from the financial programming at the beginning of the Multi-annual Financial Framework. The operational budget is directly allocated to the Agency on a yearly basis – DG CONNECT does not strictly have a financial responsibility, but does still have a responsibility to supervise the agency in terms of the achievement of results.

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
method of the in-kind contributions provided by the industry partners is not clear.			be calculated in terms of budget.	

Stage 2: Assessment and supervision of the entrusted entity's financial and control framework (towards "budget autonomy"; "financial rules").

Main control objectives: Ensuring that the entrusted entity is fully prepared to start/continue implementing the delegated funds autonomously with respect of all 5 ICOs.

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
The financial and control framework deployed by the entrusted entity is not fully mature to guarantee achieving all 5 ICOs	<p>Ex-ante assessment, conditional to granting budget autonomy</p> <p>Hierarchical validation within the authorising department</p> <p>Use of Model- or Framework-financial rules (MFR or FFR)</p> <p>Standard business processes and IT tools (EAs and JUs)</p> <p>Secondment or selection of key staff</p> <p>Continuous cooperation within the Research family (IC network, FAIR...) in order to harmonize the IC framework</p> <p>Review of audit reports (IAS, ECA)</p>	<p>Coverage/frequency: 100% of entrusted entities/once at the beginning and partial (problem focussed) for amendments or work arrangements</p> <p>Depth is determined after considering the type or nature of the entrusted entity, its form and/or the value of the budget</p>	<p>Costs: estimation of cost of staff involved in the ex-ante assessment process (which may include missions, if applicable).</p> <p>Benefits: The total budget amount entrusted to the entity,</p>	Overall supervision cost per (type of) entrusted entity (%)

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
		concerned.		

Stage 3: Operations: monitoring, supervision, reporting.

Main control objectives: Ensuring that the Commission is fully and timely informed of any relevant management issues encountered by the entrusted entity, in order to possibly mitigate any potential financial and/or reputational impacts (legality & regularity, achievement of scientific objectives, sound financial management, true and fair view reporting, anti-fraud strategy).

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The Commission is not informed of relevant management issues encountered by the entrusted entity in a timely manner</p> <p>The Commission does not react upon and mitigate notified issues in a timely manner which may reflect negatively on the Commission's governance reputation and quality of accountability reporting.</p>	<p>Delegation Act/ Contribution agreement/etc specifying the control, accounting, audit, publication, etc related requirements – incl. the modalities on reporting back relevant and reliable control results</p> <p>Membership of the Governing Boards (ECSEL – the Commission holds 1/3 of voting rights) or the Steering Committee (Executive Agencies)</p> <p>Monitoring or supervision of the entrusted entity e.g. 'regular' monitoring meetings at operational level to review progress in achieving operational results; review of reported control results and any underlying management/audit reports; scrutiny of annual report, etc.</p>	<p>Coverage: 100% of the entities are monitored/supervised.</p> <p>Frequency: key KPI's reported on a monthly basis, regular steering committee or Governing Board meetings), annual reports (AAR and operational reporting), evaluation reports.</p> <p>In case of operational and/or financial issues, appropriate</p>	<p>Costs: estimation of cost of staff involved in the actual (regular or reinforced) monitoring of the entrusted entities.</p> <p>Benefits: The average annual budget amount entrusted to the entity.</p> <p>Costs: costs of the staff</p>	<p>Overall supervision cost per (type of) entrusted entity (%)</p>

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The programme H2020 implementation (procedures, monitoring arrangements, communication with beneficiaries, budget planning, etc.) is not consistent within the Research family and with the 7 years' framework</p>	<p>Management review of the supervision results. If appropriate/needed: - reinforced monitoring of operational and/or financial aspects of the entity - potential escalation of any major governance-related issues with entrusted entities</p> <p>The Common Support Centre provides all the members of the Research Family with harmonised procedures, guidance and IT tools. DG RTD centralises the budget planning and the monitoring of the H2020's budget implementation.</p>	<p>mitigating measures are available and should be used</p> <p>Coverage/ Frequency: 100%</p> <p>Depth All the underlying implementation tools are defined et developed at family level.</p>	<p>involved in Family coordination activities</p> <p>Benefits: Qualitative benefits: Optimised procedures, harmonised approach to beneficiaries on multiple issues (audits, fraud, legal)</p>	

Stage 4: Commission contribution: payment or suspension/interruption.

Main control objectives: Ensuring that the Commission adequately assesses the management situation at the entrusted entity, before either paying out the (next) contribution for the operational and/or operating budget of the entity, or deciding to suspend/interrupt the (next) contribution. This is very closely linked to stage 3 above

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
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Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The Commission pays out the (next) contribution to the entrusted entity, while not being aware of the management issues that may lead to financial and/or reputational damage.</p> <p>Bad cash forecast leading to the Commission paying too much compared to the EE's needs</p> <p>In times of shortage of credits, the budget appropriations are not optimised with the current needs within the family</p>	<p>Delegation Act/ Contribution agreement/etc specifying the control, accounting, audit, publication, etc related requirements – including reporting</p> <p>Management review of the supervision results.</p> <p>Standard procedures for the validation of all payments and recovery of non-used operating budget subsidy</p> <p>Good internal communication to ensure that issues are known and dealt with (see stage 3)</p> <p>Family level budget coordination in DG RTD</p>	<p>Coverage: 100% of the contribution payments.</p> <p>Frequency: following the rhythm of the payments</p> <p>There is a review before each payment is made. However, the depth will depend on identified issues and on the body involved.</p>	<p>Costs: estimation of cost of staff involved (part of the general supervision costs also linked to stage 3 above)</p> <p>Benefits: The average annual budget amount entrusted to the entity</p> <p>Qualitative benefit: optimised credit implementation</p>	<p>Overall supervision cost per (type of) entrusted entity (%)</p>

Stage 5: Audit and evaluation, Discharge for Joint Undertakings

Main control objectives: Ensuring that assurance building information on the entrusted entity's activities is being provided through independent sources as well, which may confirm or contradict the management reporting received from the entrusted entity itself (on the 5 ICOs).

Main risks It may happen (again) that...	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Control indicators
<p>The Commission has not sufficient information from independent sources on the entrusted entity's management achievements, which prevents drawing conclusions on the assurance for the budget entrusted to the entity – which may reflect negatively on the Commission's governance reputation and quality of accountability reporting.</p>	<p>Delegation Act/Contribution agreement/etc specifying the control, accounting, audit, publication, etc related requirements – including independent audit function (where appropriate) and cooperation with IAS and ECA. The IAS is the internal auditor for all EAs and JUs. The ECA has access to all externalised bodies and gives a separate opinion (leading to separate discharge) for JUs and EAs for their administrative budget.</p> <p>Harmonised ex-post audits (common audit strategy for H2020), common audit service- potential escalation of any major governance-related issues with entrusted entities</p> <p>- Exchange of relevant anti-fraud information about shared beneficiaries within the Research family</p> <p>Interim evaluations by independent experts of achievement of policy objectives</p>	<p>Coverage: sample as needed (e.g. random/representative, value-targeted, risk-based).</p> <p>Frequency: whenever necessary.</p> <p>The depth depends on the type of entity and the level of risks assessed.,</p> <p>Annual report of the ECA on all JUs.</p>	<p>Costs: estimation of cost of (DG CONNECT) staff involved in the supervision of this stage (goes together with the costs of supervision in stages 3 and 4).</p>	<p>Assurance being provided (via management/audit reporting); representative error rate, residual error rate within a tolerable range; Situation confirmed by audit opinions.</p> <p>Overall supervision cost per (type of) entrusted entity (%)</p>

ANNEX 5c: Internal Control Templates for budget implementation (ICTs)

ICT for Financial Instruments

IFI = (entrusted) International Financial Institution (eg EIB/EIF, etc); FI = (further entrusted) Financial Intermediaries; "sub"-FI = (further) sub-delegated FI; FR = Final Recipient

Stage 1 – Set-up/design of the Financial Instrument and designation of International Financial Institution (IFI)

Main control objectives:

- *Ensuring that the Financial Instrument is adequate for meeting the policy or programme objectives (effectiveness); Compliance (legality & regularity); Prevention of fraud (anti-fraud strategy)*
- *Ensuring that the most promising International Financial Institution (IFI) is pre-determined or selected to ensure that the Financial Instrument is implemented effectively and efficiently; Sound financial management; Legality and regularity; Fraud prevention and detection*

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>a) The actions supported through the Financial Instrument do not adequately reflect the policy objectives</p>	<p>a) Hierarchical validation (incl. at DG level) of the:</p> <p>1) Regulation (approved by the Legislative Authority);</p> <p>2) Delegation agreement, including notably an ex-ante evaluation (required by RAP art. 224);</p> <p>3) Annual work programme for "Access to risk finance" (part of the H2020 WP) with an annual budget</p> <p>Inter-service consultation of relevant DGs</p>	<p>If risk materialises, the Financial Instrument would be irregular.</p> <p>Theoretical impact 100% of the funds involved and significant reputational consequences.</p> <p><u>Coverage</u></p>	<p><u>Costs:</u> Estimation of the total cost of monitoring and supervision by CNECT</p> <p><u>Benefits:</u> The total value of the Financial Instrument (this is our maximum risk exposure if the basic acts are</p>	<p><u>Effectiveness:</u></p> <p>Where applicable, opinions by advisory bodies (recommendations, actions taken)</p>

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
	<p>(horizontal and operational)</p> <p>Consultation of the H2020 Advisory Group on Access to Risk Finance</p> <p>Formal adoption by the Legislative Authority (for the Regulation), by Commission decision (for the DA), and by the Budgetary Authority (for the WP and the annual budget).</p> <p>Regular evaluations (see Stage 3)</p>	/frequency: 100%	inadequate)	
<p>b) The Delegation Agreement is inadequate in coverage of operational and management provisions (RAP art. 217 & 222-225)</p>	<p>b) The main principles were agreed with the IFI in the FAFAs (managed by ECFIN)</p>			
<p>c) The selection of the IFI is not in line with FR & RAP criteria, especially re: 'alignment of interests' (FR art 140.2e)</p>	<p>c) EIB and EIF were pre-determined in accordance with FR art. 58.1c. They were also chosen in order to ensure continuity between FP7 and H2020.</p>	(see above)		<p>Findings in audit reports</p>

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>d) The IFI (and the (sub)FI) does not have the experience and financial capacity / administrative & control capacity to ensure an effective & sound implementation of the Financial Instrument (FR art 60.2)</p>	<p>d) The Council asked the Commission to continue working with the EIB and EIF, since these had managed RSFF/RSI well and therefore had demonstrated that they had the experience required. The negotiations with EIB/EIF for PBI focussed on the market gaps to be addressed, but also ensured that the necessary administrative capacity existed.</p>			
<p>e) The RSM (Risk-Sharing Mechanism) is too generous to the IFI (risk of unbalanced risks)</p>	<p>e) <i>Same controls as for a) above</i> The EU's risk share is defined in the Delegation agreement. The risk sharing model was agreed in line with horizontal guidance for Financial instruments from DG BUDG and ECFIN. It was also subject to a formal Commission decision.</p>			

Stage 2 – Implementation of the Financial Instrument by the International Financial Institution (IFI), via Financial Intermediaries (FIs)

Main control objectives:

- Ensuring that the funds allocation is optimal (best value for public money; effectiveness, economy, efficiency); ensuring that the most promising Financial Intermediaries (FI), Final Recipients (FR) are selected to meet the policy objectives (effectiveness)
- Ensuring that the remuneration paid to the IFI is adequate (cost-effectiveness)
- Compliance (legality & regularity); Prevention of fraud (anti-fraud strategy); Safeguarding of assets and information; Reliable reporting (true and fair view)

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>a) The call for and selection of the contracted FIs and FRs is not in line with FR & RAP criteria for eligibility or exclusion, especially <i>'alignment of interests'</i> and <i>'no relations with offshore banking and tax havens'</i></p>	<p>a) Responsibility for the call, for evaluating, proposing and selecting FIs, lies with the IFI (the FIs do not perform calls).</p> <p>Due diligence by the IFI, which checks as part of the evaluation that banks are not registered in tax havens etc.</p> <p>Redress procedure for FIs not selected (part of EIF's and EIB's evaluation procedure)</p> <p>Implementation of various controls by the IFI/FIs in accordance with the FAPA and Delegation agreement</p> <p>EIB's control strategy is presented to the Commission</p> <p>Ex-ante controls by IFIs at "contracting" stage – EIB has a large department with experts in specific technology areas who check ex-ante that the proposed projects are eligible, excellent science and financially viable.</p>	<p><u>Coverage / frequency:</u> determined by the IFI/FIs in accordance with the Delegation agreement</p> <p><u>Depth:</u> determined by the IFI/FIs in accordance with the Delegation agreement</p>		<p><u>Effectiveness:</u> Number of appeals to the selection decision (redress procedure) Number of cases obtaining redress</p> <p><u>Efficiency:</u> Time to publication of selection results Time to contract</p> <p><u>Cost-effectiveness:</u> Total cost of monitoring and supervision by CNECT</p>

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>b) The design of the accounting and reporting arrangements would not provide a True & Fair View</p> <p>c) the remuneration (structure and/or level) of the IFI⁴¹, the reimbursement of any exceptional costs and costs for technical assistance or additional tasks would not be in line with the SFM objective (e.g. admin fees unjustifiably high)</p>	<p>An Eligibility Committee, managed by the CNECT "Designated Service" (DS), is consulted on compliance with the <u>eligibility criteria</u>, before attribution of every direct EIB loan.</p> <p>On-the-spot verifications by IFIs – a "monitoring team" visits FIs and FRs before project and after project finalisation</p> <p>b) Separate records per Financial Instrument are to be kept by the IFI; and harmonised reporting has been required by the Commission.</p> <p>c) Fees and incentives are defined in the FAFA and the Delegation agreement, including an overall cap. The agreements foresee a possible review by the Steering Committee in 2016 of the multi-annual objectives that have to be met if performance fees are to be paid.</p>	<p>c) In-depth assessment of the statement of expenses</p>		<p>c) Remuneration and costs for actually managed funds (compared to benchmark)</p>

⁴¹ Remuneration may include administrative fees, treasury management fees and incentives as well as exceptional and unforeseen expenses.

Stage 3 - Monitoring and supervision of the Financial Instrument by the Commission, incl. ex-post control and assurance building

Main control objectives:

- Ensuring that the operational results (deliverables) from the Financial Instrument are of good value and meet the objectives and conditions (effectiveness & efficiency); ensuring that the related financial operations comply with regulatory and contractual provisions (legality & regularity); prevention of fraud (anti-fraud strategy); ensuring appropriate accounting of the operations (reliability of reporting, safeguarding of assets and information)
- Ensuring appropriate accounting of the repayments and assigned revenue made (reliability of reporting)
- Ensuring that the (audit) results from the ex-post controls lead to assurance for the accountable AOD (5 ICOs)

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>a) The IFI (and the (sub)FI) provide support to activities which are not contributing to achieving the policy objectives and the implementation is not in compliance with applicable regulations and is not in accordance with the principle of sound financial management</p>	<p>a,b) Monitoring and supervision of the IFI/FIs is organised formally through the PBI Debt Steering Committee.</p> <p>Regular reporting (quarterly, annually and ad hoc) by the IFI to the Commission "Designated Service" on operational and financial performance and administrative costs.</p> <p><u>Annual reporting: Financial statements; Management declaration; Summary report of audits and controls; independent (external) audit opinion.</u></p> <p><u>In case of a key issue (weak reporting,</u></p>	<p><u>Coverage: 100% of the funding payments to the entrusted entity are controlled</u></p>	<p><u>Costs:</u> Estimation of the total cost of monitoring and supervision by CNECT (+ cost of contracted services, if any)</p> <p><u>Benefits:</u> value of the funding provided and leverage, as well as scientific excellence (innovation)</p>	<p><u>Effectiveness:</u></p> <p>Success ratios and KPIs for policy objectives (e.g. "leverage", "co-risk taking", number of FRs supported by the Financial Instrument, disbursement rate)</p> <p>Internal control, auditing and monitoring "issues"; interventions; issues under reinforced internal control,</p>

Main risks <i>It may happen (again) that...</i>	Mitigating controls	How to determine coverage, frequency and depth	How to estimate the costs and benefits of controls	Possible control indicators
<p>b) Internal control weaknesses, irregularities, errors and fraud are not detected and corrected by the IFI (and the (sub)FI), resulting in the EU funds not achieving the policy objectives and not complying with applicable regulations</p> <p>c) The IFI does not report information that CNECT considers crucial</p> <p>d) The Financial Instrument transactions lead to contingent liabilities for the EU budget</p>	<p><i>negative audit opinion, high risk operations, etc): Reinforced monitoring and supervision, <u>if needed</u>: The Commission has the right to suspend or interrupt payments, or even apply the exit strategy (winding-up)</i></p> <p>Referring IFI/FI to OLAF</p> <p>c) Annual report has to be audited by an independent auditor, who also reports on the control system</p> <p>d) The H2020 legal base stipulates that the EU's liability (i.e. financial risk) is limited to the contribution it has paid, so there can be no contingent or off-balance sheet liabilities over this amount.</p>		<p><u>Losses</u>: e.g. write-offs of equity/loans, loan guarantees called</p>	<p>auditing and monitoring; critical audit findings</p> <p><u>Cost-Effectiveness</u>: Total cost of monitoring and supervision by CNECT over value delegated</p> <p>Management fees over value delegated</p> <p>The sum of the total cost of monitoring/supervision by CNECT and management fees, over value delegated</p>



ANNEX 6: Implementation through national or international public-sector bodies and bodies governed by private law with a public sector mission

This annex, which *applies only to indirect management*, includes information about implementing tasks entrusted to national or international public sector bodies and bodies governed by private law with a public sector mission. In practice, this includes "national agencies" and bodies governed by private law with a public sector mission including PPPs (but not executive agencies, regulatory agencies, EIB and EIF).

ECSEL Joint Undertaking

1. Programmes concerned:	Horizon 2020 - the Framework Programme for RTD(2014-2020) - PART II. PRIORITY Industrial leadership, under specific objective -Leadership in enabling and industrial technologies
2. Annual budgetary amount entrusted	EUR 144 642 325,20 ⁴²
3. Duration of the delegation:	27 June 2014 - 31 December 2024

⁴² Of which EUR 1 410 000 (810 000 from H2020 and 600 000 from legacy), according to Article 19 (3) of the Council Regulation No 561/2014, is paid for the contributions to the administrative costs of the ECSEL Joint Undertaking for the completion of the actions launched under Regulations (EC) No, 72/2008 and (EC) No 74/2008. The total contribution of EUR 2 050 000 is to be paid by the Union over the period 2014-2017.

4. Justification of recourse to indirect centralised management:	Required by the Council Regulation ⁴³ establishing ECSEL Joint Undertaking to implement a Joint Technology Initiative on Electronic Components and Systems for European Leadership
5. Justification of the selection of the bodies (identity, selection criteria, possible indication in the legal basis etc):	Set out in the Council Regulation establishing the ECSEL Joint Undertaking as a Union body
6. Summary description of the implementing tasks entrusted.	<p>The ECSEL JU shall carry out the following tasks:</p> <p>(a) support financially research and innovation indirect actions, mainly in the form of grants;</p> <p>(b) implement the tasks related to the operations of the Participants Guarantee Fund (PGF) for all the grants awarded by the ECSEL JU, according to the rules set out in the Rules for Participation and the Commission Decision on the financial management of the Participants Guarantee Fund C (2013) 9092, that establishes that the Executive Director of the ECSEL JU as the Authorising Officer (AO) will be responsible:</p> <ul style="list-style-type: none"> - for retaining, from each initial pre-financing, 5% of the maximum grant amount provided for in the grant agreement and for transferring this amount from their specific account to the PGF; - for returning PGF contributions to beneficiaries, for PGF interventions and for receipts. <p>(c) ensure sustainable management of the ECSEL JU;</p>

⁴³ Council Regulation (EU) No 561/2014 of 6 May 2014, OJ L 169, 7.6.2014, p. 152.

	<p>(d) develop close cooperation and ensure coordination with European (in particular Horizon 2020), national and transnational activities, bodies and stakeholders, aiming at fostering a fertile innovation environment in Europe, creating synergies and improving exploitation of research and innovation results in the area of electronic components and systems;</p> <p>(e) define and make any necessary adjustments to the multiannual strategic plan;</p> <p>(f) draw up and implement work plans for executing the multiannual strategic plan;</p> <p>(f) initiate open calls for proposals, evaluate proposals, and award funding to indirect actions through open and transparent procedures within the limits of available funds;</p> <p>(g) publish information on the indirect actions;</p> <p>(h) monitor the implementation of the indirect actions and manage the grant agreements or decisions;</p> <p>(i) monitor overall progress towards achieving the objectives of the ECSEL JU;</p> <p>(j) engage in information, communication, exploitation and dissemination activities by applying mutatis mutandis Article 28 of Regulation (EU) No 1291/2013, including making the detailed information on results from calls for proposals available and accessible in a common Horizon 2020 e-database;</p> <p>(k) liaise with a broad range of stakeholders, including research organisations and universities.</p>
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AAL Joint Programme

<p>1. Programmes concerned:</p>	<p>H2020</p> <p>Societal Challenges – Health, demographic change and well-being</p>
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2. Annual budgetary amount entrusted	EUR 25 M
3. Duration of the delegation:	20014-2027
4. Justification of recourse to indirect centralised management:	Required by co-decision ⁴⁴ by the European Parliament and the Council concerning the Community participation in the AAL Joint Programme (represented by the AAL Association, an International ASBL under Belgian Law)
5. Justification of the selection of the bodies (identity, selection criteria, possible indication in the legal basis etc):	Set out in co-decision by the European Parliament and the Council on the participation of the Union in the Ambient Assisted Living Research and Development Programme jointly undertaken by several Member States
6. Summary description of the implementing tasks entrusted.	Implementation of the Union participation in the AAL Joint Programme

⁴⁴ Decision 554/2014/EU of 15 May 2014

ANNEX 7: EAMR of the Union Delegations - N/A

ANNEX 8: Decentralised agencies

ENISA

Policy concerned	Annual budgetary amount entrusted
To achieve a high and effective level of Network and Information Security within the European Union. Together with the EU-institutions and the Member States, ENISA seeks to develop a culture of Network and Information Security for the benefit of citizens, consumers, business and public sector organisations in the European Union.	EUR 9.100.612

BEREC Office

Policy concerned	Annual budgetary amount entrusted
Development and better functioning of the internal market for electronic communications networks and services by aiming to ensure a consistent application of the EU regulatory framework for electronic communications.	EUR 3.498.143

ANNEX 9: Evaluations and other studies finalised or cancelled in 2015 - See separate document

**ANNEX 10: DG CONNECT activities covered by cross sub-delegation in 2015 –
See separate document**

ANNEX 11: Specific annexes related to management of resources - N/A

ANNEX 12: Performance tables

1. General Objectives, Impact Indicators

1.1. Policy and regulatory activities

General objective: Improving the EU's global competitive position in the transition towards a 'smart' Internet economy as set out in Europe 2020 and as implemented notably through the European Semester by completing the digital single market		
<input type="checkbox"/> Programme-based <input checked="" type="checkbox"/> Non programme-based		
Impact indicator 1: Percentage of population buying online Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
Baseline	Current situation	Target
45% (2012)	53%	By 2015, 50% of the population should be buying online
Impact indicator 2: Percentage of population buying cross-border online Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
11% (2012)	16% While the target of cross-border purchasing as technically defined has not been reached, it is quite possible that the issue identified by the target has been reached. In fact, as more companies set up websites dedicated to markets in other Member States, more and more customers are buying cross-border without knowing it (customers base their answers on the country domain extension, i.e. .fr or .es). However, there is no data available to measure this development.	By 2015, 20% of the population should buy cross border online
Impact indicator 3: Percentage of small and medium enterprises (SMEs) selling online Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
13% (2012)	16% The data compilation for the DAE target "33% of SMEs should conduct	By 2015, 33% of SMEs should conduct online sales

	online purchases/sales by 2015" had to be limited to the online <i>selling</i> part only, because the data on online purchasing turned out to be unreliable, which is why several Member States stopped collecting it. As a result, the comparability of the currently available data to the original target is limited.	
Impact indicator 4: Difference between roaming and national tariffs in mobile communications Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
33% (2012)	73% (Q1 2015) The target of 100% could not be reached although roaming prices (voice, data and messaging) have been falling sharply since 2007 thanks to EU regulation of wholesale and retail prices. However, they are still substantially higher than domestic prices. As of 15 June 2017, no extra charges can be applied to roaming within the EU, so the target will be achieved by that time.	By 2015, the difference between roaming and national tariffs should approach zero (which would correspond to 100%)
Impact indicator 5: Broadband coverage Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
54% (2012)	71% (June 2015)	By 2020, broadband internet access at or above 30 Mbps for 100% of EU citizens
Impact indicator 6: Ultra-fast broadband coverage Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
2% (2012)	10% (June 2015)	By 2020, 50% of EU households should have subscriptions above 100Mbps

General objective: Promote the access and use of ICT to the benefit of EU society

Programme-based

Non programme-based

Impact indicator 1: Percentage of population using internet regularly Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
Baseline	Current situation	Target
70% of the population used internet regularly (2012)	76%	by 2015, 75% of the population should be using internet regularly
Impact Indicator 2: percentage of disadvantaged people using internet regularly Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
54% of the persons with disadvantages used internet regularly (2011)	63%	By 2015, 60% of people with disadvantages should use internet regularly
Impact Indicator 3: percentage of population that has never used internet Source: DAE, http://ec.europa.eu/digital-agenda/en/scoreboard		
22% of population never used internet (2011)	16% Given the statistical margins of error, the difference of 1% to the headline figure does not matter for policy purposes.	By 2015, the proportion of population that has never used internet should be halved to 15% (in comparison with 2009: 30 %)

2.1. Horizon 2020

General objective: To build a society and a world-leading economy based on knowledge and innovation across the whole Union, while contributing to sustainable development	<input checked="" type="checkbox"/> Programme-based: H2020 <input type="checkbox"/> Non programme-based	
Impact indicator 1: The Europe 2020 R&D target (3 % of GDP) Source: Annex I – Horizon 2020 regulation		
Baseline	Current situation	Target
2,03 % of GDP (EU-27, 2011)	2.03 % (EU 28, 2014)	3% in 2020
Impact indicator 2: The Europe 2020 innovation headline indicator (index with reference 100 in 2010) Source: Annex I – Horizon 2020 regulation		

Baseline	Current situation	Target
104,4 (2011)	101.6 (2012)	Pending decision in the context of the European Semester <i>Source: DG RTD's framework for monitoring, evaluation and reporting on Horizon 2020</i>
Impact indicator 3: Share of researchers in the EU active population Source: Annex I – Horizon 2020 regulation		
Baseline	Current situation	Target
0,99% (2009)	1.12% (2013)	1,15% in 2020
Planned evaluations: Horizon 2020 interim evaluation – will be launched in 2017		

3.1. Connecting Europe Facility

<p>General objective: Contributing to smart, sustainable and inclusive growth, in line with the Europe 2020 Strategy, by developing modern and high-performing trans-European networks which take into account expected future traffic flows, thus benefiting the entire Union in terms of improving competitiveness on the global market and economic, social and territorial cohesion in the internal market and creating an environment more conducive to private, public or public-private investment through a combination of financial instruments and Union direct support where projects could benefit from such a combination of instruments and by appropriately exploiting synergies across the sectors.</p> <p>(Source: CEF regulation – Art. 3 a)</p> <p>Impact indicator 1: Volume of private investment in fast and ultra-fast broadband internet⁴⁵</p>	<p><input checked="" type="checkbox"/> Programme-based: CEF</p> <p><input type="checkbox"/> Non programme-based</p>
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⁴⁵ This is the forecast of investments made independent of and without CEF intervention. CAPEX figures are collected for year x-2.

Source: CEF Programme Statement DB2014			
Baseline	Current situation	Target	
No private investment related to CEF in 2013 Telecom network CAPEX in Europe was 43 BEUR in 2013 (Source: Communications Committee).	Telecom network CAPEX in Europe was 46 BEUR in 2014 ⁴⁶ (Source: Communications Committee). CAPEX is one of the few indicators collected by DG CONNECT with a time lag of > 1yr	Projection of private investment until 2020: up to 50 BEUR per annum (Investment need until 2020: up to 270 BEUR)	
Impact indicator 2: Volume of public and private investment in projects of common interest for fast and ultra-fast broadband internet funded by CEF, cumulative ⁴⁷ Source: CEF Programme Statement DB2014			
Baseline	Current situation	Milestone (2017)	Target
0 EUR (2013)	The current situation is still 189 MEUR, as no projects have been signed in 2015.	949 MEUR	1148 MEUR (2020) ⁴⁸
Planned evaluations: CEF – will be launched in 2017			
The first deal under the Project Bond initiative (a pilot for CEF) used 13 MEUR from the budget and made it possible to fund a bond worth 189 MEUR. An evaluation about the best way to use the CEF broadband money was completed in December 2014. The debt instrument under CEF is operational as from July 2015. No project has been signed as yet.			

4.1. Media

General objective: To advance culture and creativity, to sustain diversity, to promote the competitiveness of cultural, creative and innovative actors	<input checked="" type="checkbox"/> Programme-based: Creative Europe MEDIA
	<input type="checkbox"/> Non programme-based

⁴⁶ At the time of writing, the figure was still under validation by MS

⁴⁷ This is the forecast for what can be achieved with CEF.

⁴⁸ This assumes limited CEF broadband funds leveraging private and (other) public investment by a factor of 7.

Impact Indicator 1: Audience of European audio-visual works

Definition: a) Number of people in the Member States accessing non-national European films in cinemas;

b) number of people in the countries participating in the programme accessing European films in cinemas⁴⁹

Source: European Audio-visual Observatory Annual Report; mid-term evaluation of MEDIA sub-programme

Baseline (2009)	Current situation (2014)	Milestones (2017)	Target (2020)
a) EU: 71 million	83 million	71 million	71 million
b) Participating countries: 298 million	288 million	298 million	298 million

Planned evaluations: Ex-post evaluation MEDIA and MEDIA Mundus- launched in 2015, to be finalised end 2015

The result indicators have been revised following the correction of the underlying methodology to take into account the development of digital distribution in recent years. The underlying trend over the last five years does not indicate structural growth in theatrical admissions but rather a resilient box-office accompanied by a fast rise in digital distribution.

⁴⁹ Covering both national and non-national European audio-visual works. In 2014 in addition to EU Member States, Norway, Iceland, Bosnia and Montenegro participate.

2. Specific objectives, results, indicators and outputs

2.1. Policy and regulatory activities

Relevant general objective(s):
Improving the EU's global competitive position in the transition towards a 'smart' Internet economy as set out in Europe 2020 and as implemented notably through the European Semester by completing the digital single market

Specific objective 1: Bring forward rules to support a competitive telecom single market fostering innovation and investment, including preparations for the third review of the electronic communications regulatory framework

Programme-based
 Non programme-based

Result indicator 1: NGA broadband coverage/availability (as a % of households)

Baseline	Current situation	Target
48 % end of 2011	71% (Jun. 2015)	Fast broadband (>30Mbps) for all by 2020

Result indicator 2: Individuals who are regular internet users (at least once a week)

Baseline	Current situation	Target
32%	Current situation unknown but the target is foreseen to be measured through a pan-European study in 2017/2018.	70% of 9-12 year olds satisfied with content and activities for them online (2015)

Result indicator 3: The Degree of convergence of regulated (efficient cost-based) access prices across Member States

Baseline	Current situation	Target
For wholesale local access prices in 2013: 60%; For termination rates in 2009: 300% (MTRs) - 400% (FTRs). (2013/2009)	For local loop unbundling (LLU) prices in 2014: 46% For mobile termination rates (MTRs) in 2015: 138% For fixed termination rates (FTRs) in 2015: 497% (the implementation of the recommendation has been slower for FTRs than MTRs; the standard deviation has therefore increased as some Member States have implemented pure BU-LRIC rates and others have not yet done so.)	For the 85% most converged Member States, drop below (i) 25 the difference between the lowest and the highest wholesale local access price observed in different Member States and (ii) 50% the difference between the lowest and highest termination rate (By 2020)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Stakeholder workshops and public consultation on fundamental pillars of framework review	Participation in and responses from stakeholder workshops and public consultation	12 week public consultation ended on 7 December. Public Hearing organised in November	To be defined
Directive on cost reduction for deploying high-speed electronic communications networks, OJ L 157, 27/05/2014	Transposition in Member States	Only 6 MS notified partial transposition (Spain, Lithuania, Austria, Poland, Slovenia, Slovakia)	Adopted on 15 May 2014. Transposition by 1 January 2016. Full implementation by end of 2016
Review of the scope of the universal service	Completion of review	Part of telecom review	By end 2016
Review of Termination Rates Recommendation	Timely availability of revised Recommendation	Preparation to launch public consultation	Adoption in 2016
The review of the scope of the universal service has been merged into the evaluation and review of the electronic communications regulatory framework.			

Specific objective 2: Reduce the cost and increase efficiency in the deployment of fixed high-speed broadband, to facilitate the roll-out of EU-wide high-speed broadband so that all parts of the EU can be connected

Programme-based
 Non programme-based

Result indicator 1: NGA broadband coverage/availability (as a % of households)			
Baseline	Current situation	Target	
48 % (end of 2011)	71% (June 2015)	Fast broadband (>30Mbps) for all by 2020	
Main outputs in 2015:			
Description	Indicator	Current situation	Target
Directive on cost reduction	1.1 Broadband coverage - Percentage of population within the EU covered by	71% (June 2015)	Fast broadband (>30Mbps) for all by 2020

	broadband from 30Mbps by 2020		
Directive on cost reduction	1.2 Cost savings	The Directive is still in transposition phase. Full implementation by end of 2016.	The coherent and systematic application of the set of measures established under this initiative should bring down the costs of rolling out high-speed broadband networks by 25% until 2020
Connected Continent Regulation (TSM)	Average retail price paid for intra-EU calls made/received, SMS, data while roaming (BEREC Benchmark Reporting)	13€/cent – 3,4€/cent minute; 5,5€/cent SMS; 5,3€/cent MB (IQ. 2015)	RLAH (average surcharges approaching 0) by July 2017
Interoperability standards for wholesale access products	Reference offers	European interoperability standards still to be set	At least one reference offer of harmonised wholesale access products based on European interoperability standards per each regulated market, per type of wholesale access products until 2020

Specific objective 3: Support wireless broadband communications in the EU through most efficient use of spectrum to meet the target of 1200 MHz of spectrum available throughout the single market for wireless broadband

Programme-based
 Non programme-based

Result indicator 1: 4G mobile broadband (LTE) coverage (as a % of households)		
Baseline	Current situation	Target
59% (2013) Source: (DAE scoreboard)	79% (2014) Source: (DAE scoreboard)	EU LTE population coverage exceeding 90% (Q4 2016)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Spectrum rules implemented by Member States	Availability of 800 MHz band in Member States	The band is available in 25 Member States	All Member States with few justified exceptions have made available the 800 MHz band for wireless broadband use
Spectrum inventory	Availability of data on spectrum supply	The Commission cooperates with the Member States both in collecting data that are already available at Member State level and in obtaining additional data on a targeted basis, in particular for frequency bands relevant to the implementation of the RSPP	Database containing information on spectrum supply for several relevant priority bands as identified through the inventory initiative

<p>Specific objective 4: To establish a policy framework consistent throughout the Union that provides legal certainty regarding spectrum sharing conditions and incentives to use spectrum more efficiently</p>	<input type="checkbox"/> Programme-based <input checked="" type="checkbox"/> Non programme-based
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Result indicator 1: EU spectrum assignments supporting ultra-fast wireless broadband access based on 4G-advanced or 5G cellular networks integrated with next-generation Wi-Fi (4306)		
Baseline	Current situation	Target
642 (Q4 2013)	706 (Q4 2015)	1200 (2020)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Harmonised spectrum for wireless broadband	Identified wireless broadband spectrum for licensed use	1030 MHz	1200 MHz

Harmonised spectrum for wireless broadband	EU population coverage of ultra-fast wireless broadband access based on 4G-Advanced or 5G cellular networks integrated with next-generation Wi-Fi	Not yet available.	EU population coverage of at least urban and suburban areas with ultra-fast wireless broadband access > 80 %
<p>The Commission will propose the harmonisation of the 700 MHz band for wireless broadband use in Q1 2016 which will amount to 60 MHz. An additional band, the 2.3-2.4 GHz is being examined to allow sharing between wireless broadband and incumbent users.</p> <p>The second indicator is not yet available. It will be added to the study on broadband coverage. A first data collection point is expected for 2016 or 2017 depending on market developments.</p>			

<p>Specific objective 5: Ensure that all Europeans have access to digital services through a review of the current scope of universal services at EU level</p>	<input type="checkbox"/> Programme-based <input checked="" type="checkbox"/> Non programme-based
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<p>Result indicator 1: Digital Economy and Society Index (Connectivity dimension) Source: DG Connect</p>		
Baseline	Current situation	Target
<p>EU28 score 0,51 (on a scale 0 to 1) (<i>DESI 2014, figures mainly relate to 2013 situation</i>)</p>	<p>The EU continues progressing in connectivity, going from a score of 0.57 in DESI 2015 (data from 2014) to a score of 0.59 in DESI 2016 (data from 2015). The progress rate has however slowed down: while the score grew by 0.055 from DESI 2014 to DESI 2015, over the last year the growth was a mere 0.025.</p>	<p>Year to year growth rate of the composite indicator for all MS as well as narrow the gap between them</p>

Main outputs in 2015:			
Description	Indicator	Current situation	Target
<p>Review of the scope of the universal service</p>	<p>Completion of review</p>	<p>Ongoing. The review of the scope of universal service has been merged with the overall review of the telecoms regulatory framework.</p>	<p>By end 2015</p>

The review of the scope of universal service has been merged with the general review of the telecoms framework. Public consultation was carried out in Q4 2015, the results of the review as well as possible proposals for changes to the scope to be delivered in Q3 2016.

Specific objective 6: To reform wholesale roaming Programme-based
 Non programme-based

Result indicator 1: Average retail roaming prices

Baseline	Indicator	Current situation	Target
Regulated safeguard caps as from July 2014: 0.19€/min for calls made, 0.06€/SMS and 0.20€/MB for data	Average retail price paid for intra-EU calls made/received, SMS, data while roaming (BEREC Benchmark Reporting)	13€/cent – 3,4€/cent minute; 5,5€/cent SMS; 5,3€/cent MB (Q1. 2015)	"Roam like at home" becomes the norm in roaming pricing (by June 2017)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Connected Continent Regulation (TSM)	The establishment of direct output/result indicators and targets, and related data sources, should await finalisation of the legislation	Regulation adopted in 2015	'Roam Like at Home' from 15 June 2017
The adopted TSM regulation has set new target dates for "Roam like at home" to become the norm in roaming pricing within the EU.			

Specific objective 7: To increase security and trust in the digital environment for the benefit of citizens, businesses and Programme-based

public sector organisations

Non programme-based

Result indicator 1: Number of Member States with effective application of the technical implementing measures on personal data breach notifications

Baseline	Current situation	Target
0	28	28

Main outputs in 2015:

Description	Indicator	Current situation	Target
Assessment of effective application of technical implementing measures	Number of Member States with effective application of the technical implementing measures on personal data breach notifications	28	28
Assessment of effective application of ePrivacy Directive	Number of Member States assessed for their effective national implementation of the ePrivacy Directive	28 (6 more in-depth)	8-9 (2015)

Planned evaluations: Evaluation of Privacy and Electronic Communications Directive – REFIT – 2014/2015

Based on the information gathered so far, there is no indication that any Member State would not have put in place effective measures with regard to data breach notifications. There appears to be a divergence among Member States as to the number of personal data breaches reported. The issue is being further considered, but may depend on the different requirements set up at national level (namely with some Member States having implemented a broader notion of what needs to be notified).

Specific objective 8: To boost trust and convenience in secure and seamless cross-border e -transaction by promoting the widespread use Programme-based Non programme-

Result indicator 1: Percentage of SMEs using/relying on electronic identification, authentication and signature (eIDAS)

Source of data: SME panel conducted on 1251 SMEs

http://ec.europa.eu/information_society/policy/esignature/eu_legislation/revision/sme_panel/index_en.htm

Baseline	Current situation	Target
61 % SMEs use eIDAS technologically based services (2011)	The target is likely to have been achieved, but cannot be measured since the SME Panel which was run by DG ENTR is not conducted any longer.	80% (2015)

Result indicator 2: Number of MS that notify an eID scheme to the Commission under eIDAS Regulation

Baseline	Current situation	Target
0 (2014)	0 (process to start voluntarily notifying eID schemes started 28 September 2015 - most MSs have expressed the intention to notify their eID schemes (i.e. 7 MS in 2016; 6 MS in 2017 and 6 MS with no date).	16 (2018)

Main outputs in 2015:

Description	Indicator	Current situation	Target
Secondary legislation	Adoption of the set of implementing acts having a deadline by end 2015	8 adopted (all foreseen implementing acts were adopted on time. Two have been merged into one. An additional implementing act on the notification of eID schemes was adopted on 3.11.2015)	8

Specific objective 9: To ensure that the audio-visual and media sector can rely upon a regulatory framework which favours innovation and competition and attracts investments, taking into account objectives of general interest like the protection of minors and cultural diversity. To help Member States with the transposition of the EU Audio-visual regulatory framework (through identifying issues, delivering information, about how to implement, and efficient monitoring of the compliance with EU law) and if necessary starting infringement proceedings to ensure implementation

Programme-based
 Non programme-based

Result indicator 1: Number of linear audio-visual services established in a Member State and targeting non domestic EU markets

Source: European Audio-visual Observatory. Data include channels targeting extra EU markets. Statistics covering only EU markets to be provided by the Observatory at a later stage

The number of channels targeting foreign markets is extracted from the MAVISE database. In the autumn 2015, the EAO has launched a comprehensive updating exercise. This resulted in the removal of a certain number of channels that were not operating anymore for a long time. This explains the drop between 2013 and 2015. The updating exercise should be finalized in the coming months.

Baseline	Current situation	Target
1989 channels targeting foreign markets (EU 28 + extra EU) (12/2013)	1770 channels targeting foreign markets (EU 28 + extra EU) (12/2015). PS: 2013 and 2015 datasets are not comparable. See explanation in the box above.	Increase up to 10% (EU 28 + extra EU) (2015)

Result indicator 2: Number of Video-on-Demand services available in Member States provided by suppliers established in another Member State
Source: European Audio-visual Observatory - data include multiple counting of services available in more than one MS. Methodology to be improved by the Observatory

Baseline	Current situation	Target
277 (2/2014)	395 (10/15)	Increase up to 8% (2015)

Main outputs in 2015:

Description	Indicator	Current situation	Target
Research: new advanced methods, systems, technologies and services	Deliverables in line with the definition of the DOW (Description of Works).	100%	100 % compliance of projects with DOW
Review of the current regulatory framework (REFIT)	Fit for purpose proposal with regard to the follow up of the Green Paper.	See hereunder.	Fit for purpose preparation of the REFIT exercise
Planned evaluation: Evaluation of the Audiovisual Media Services Directive – REFIT – planned for 2015			
The DSM strategy announces a review of the AVMSD in 2016. In 2015, DG CONNECT carried out the evaluation of the current Directive under the REFIT programme of the Better Regulation Framework and, in parallel, the Impact Assessment of policy options for the future of the Directive. A Public consultation fed into both exercises along with a number of publicly procured studies. Completion and delivery of the Impact assessment and REFIT evaluation of the AVMSD are due to be completed and delivered in early 2016, ahead of the adoption of a legislative proposal.			

Specific objective 10: Better framework conditions (favourable policy and legal environment, standardisation, infrastructure and skills) for the development of the data value chain in Europe

Programme-based
 Non programme-based

Result indicator 1: Increase the number of data-related jobs (first measurement is expected in 2015)
Source: European data market monitoring tool

Baseline	Current situation	Target
The EU had 5.7 million data workers in 2013.	The EU had 6.1 million data workers in 2014, representing more than 3% of the total employment. The number of data workers therefore increased by almost 6% year-on-year in 2014, which is well over the 2.2% 2014 employment growth rate.	Increase the number of data-related jobs (2017)

Result indicator 2: Increase the revenue generated by data companies (first measurement is expected in 2015)
Source: European data market monitoring tool

Baseline	Current situation	Target
The revenues of EU data companies amounted to almost EUR 48 Billion in 2013.	In 2014, the revenues of data companies increased to EUR 51 Billion, thus registering a considerable growth rate of 7.1% year-on-year.	Increase the revenue generated by data companies (first measurement is expected in 2015)

Result indicator 3: Number of Member States scoring at least 325 points in the Public Sector Information (PSI) scoreboard proving significant effort in making public sector data available for re-use
Source: PSI scoreboard (<http://www.epsiplatform.eu/content/european-psi-scoreboard>)

Baseline	Current situation	Target
13 Member States (2014)	EU28 average 388 points 11 countries out of 28 still score slightly less than 325 points	All Member States score at least 325 points in the PSI scoreboard by end 2014 (by end 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Availability of R&I roadmap	R&I actions based on the outcome of the SRIA	The first H2020 call for proposals have been launched (calls ICT 14, 15, 17, deadline for submission 12/4/2016) and will be evaluated in 2016	Results of the stakeholders consultation and the SRIA implemented into the H2020WP 2016-2017
Industry participation in R&I projects	% participation of industry / SMEs	49,4% industry participation and 27,1% SME participation in H2020 Big Data projects*	> 50% participation of industry (with a target increase of around 10%)
Open data infrastructure (CEF DSI)	Successful and stable core platform of the open data infrastructure, as measured by the volume of data	The portal was successfully launched on 16/11/2015, with an initial content of 300.000 references to European public	Operational pan-European open data infrastructure by end 2016

	accessible through European data infrastructure and the number of visitors	datasets. During the first 2 weeks the portal was visited by 14.290 users consulting 75.870 pages	
Correct transposition of the revised Directive in all Member States	Number of Member States with correct transposition of the revised PSI Directive	15	Correct transposition of the revised PSI Directive in all Member States
<p>11 countries out of 28 still score slightly less than 325 points in the PSI scoreboard. The average at the 28 MSs however significantly increased. Ongoing activities supporting the transposition of the revised PSI directive, including the deployment on an Open Data infrastructure under the Connecting Europe Facility programme, are put in place to improve the overall scoring.</p> <p>Industry participation is likely to increase further from 2016 H2020 Big Data calls which address predominantly industrial challenges and innovation actions.</p> <p>Transposition deadline of Directive 2013/37/EU amending Directive 2003/98/EC on the re-use of public sector information (known as the 'PSI Directive') expired on 18 July 2015. By late January 2016, 23 Member States have notified transposition measures to the Commission, while one more Member State has transposed the Directive but not yet notified. Notifications for three Member States are only partial.</p>			

Specific objective 11: Establishing effective framework conditions for competitiveness and growth through cloud computing and services or measures to support entrepreneurship Programme-based Non programme-based

Result indicator 1: Following the availability of a Eurostat module, the indicator "% of EU enterprises using cloud computing " replaces the initial indicator "% of total business IT spend on 'public and private cloud'".

Source data: The initial 2013 baseline was obtained from a study. From 2014 onwards, a new Eurostat module on the take up of cloud computing is envisaged to be run every 2 years. This will be used to determine the progress of the indicator for the years 2014 and 2016. The outcome of the first Eurostat module was published in 2014
[\[http://ec.europa.eu/eurostat/statistics-explained/index.php/Cloud_computing_statistics_on_the_use_by_enterprises\]](http://ec.europa.eu/eurostat/statistics-explained/index.php/Cloud_computing_statistics_on_the_use_by_enterprises)

Baseline	Current situation	Target
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EU average 19% (2014)	EU average: 25% (estimate)	EU average 33% (2016)
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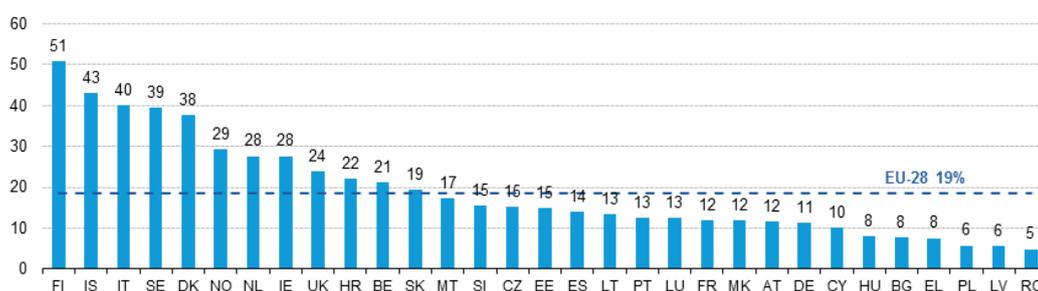
Result indicator 2: Number of web start-ups in the major European technology hubs
Source data: To be measured by the ongoing study on the dynamic mapping of the European web-entrepreneur ecosystem (SMART 2013/0035)

Baseline	Current situation	Target
Not yet available (2014)	Not yet available, study ongoing.	70% (2016)

Main outputs in 2015:

Description	Indicator	Current situation	Target
Number of active participants in the pilots and networks of the web entrepreneurs activities	Number of active participants in the pilots and networks	More than 400	50
Number of stakeholders that have contributed to the Web entrepreneurs activities	The number of stakeholders (accelerators, investors, crow funding platforms, corporates, entrepreneurs and decision makers) who have contributed to these outcomes	More than 200	100

In view of the comprehensive amount of data gathered and analysed by Eurostat, a change of result indicator has been suggested. As shown below, the Eurostat data clearly indicate significant differences between Member States.



Specific objective 12: A smoothly functioning Intellectual Property (IP) infrastructure in the EU stimulates growth and job creation as well as dissemination of innovative products and services in the Single Market Programme-based) Non programme-based

Result indicator 1: Contribution of Copyright intensive industries to EU GDP
 IPR-intensive industries are defined as either those that register more Intellectual Property Rights per employee than other industries, or those where the use of IPR is an intrinsic characteristic of the industry's activity. These industries are selected at EU-level, i.e. using EU-wide measures of IPR intensity

Source: OHIM/Eurostat/EPO

Baseline	Current situation	Target
4,2% of EU GDP during the period 2008-2010	No new data available	By 2019, increase the contribution of Copyright intensive industries to EU GDP

Result indicator 2: Contribution of Copyright intensive industries to EU employment

Source: OHIM/EPO/MARKT

Baseline	Current situation	Target
3,2% of EU employment during the period 2008-2010	No new data available	By 2019, increase the contribution of Copyright intensive industries to EU employment

Main outputs in 2015:

Description	Indicator	Current situation	Target
Initiative on review of the EU Copyright legal framework	Adoption	Proposal for a Regulation on portability of online services presented on 9.12.2015 Communication on Copyright of 9.12.2015 setting out further legislative actions planned for 2016	2015

Relevant general objective(s):
Promote the access and use of ICT to the benefit of EU society

Specific objective 1: Preserving an open Internet in which citizens have the right to access and run applications of their choice Programme-based Non programme-based

Result indicator 1: Individuals who are regular internet users (at least once a week)

Baseline	Current situation	Target
32%	No figure available end 2015	70% of 9-12 year olds satisfied with content and activities for them online (2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Connected Continent Regulation (TSM)	Openness of internet	The TSM Regulation (EU) 2015/2120 was adopted in November 2015. It creates an individual right of end users to access or distribute internet content and services of their choice. It also establishes for the first time in the EU the principle of non-discriminatory traffic management	Increase the number of individuals who are regular Internet users. In order to make the use of the Internet more easy and attractive, there should be no deliberate blocking or throttling
Connected Continent Regulation (TSM)	Broadband speeds	75% at the end of 2014. No figure available at end 2015 The TSM Regulation entitles subscribers to increased transparency and obliges internet access services providers to inform consumers about the minimum, normally available, maximum and advertised speed in fixed networks, and the estimated maximum and advertised speed in mobile networks;	Actual speeds at least 90% of advertised speeds
Connected Continent Regulation (TSM)	Average retail roaming prices	13€/cent – 3,4€/cent minute; 5,5€/cent SMS; 5,3€/cent MB (Q1. 2015)	"Roam like at home" becomes the norm in roaming pricing

Measurement of actual speeds at EU level stopped in 2014. Monitoring of national markets by NRAs may provide new information in the future.

Specific objective 2: To improve web accessibility in Europe Programme-based through a common approach Non programme-based

Result indicator 1: Public sector bodies' websites accessible according to harmonised requirements (DAE action 64)

Baseline	Current situation	Target
In 2011, less than 40 % of public websites were accessible	<p>2015 data not available.</p> <p>Actions to make public sector websites accessible are under the responsibility of Member States, beyond the control of the Commission.</p> <p>The Web Accessibility Directive proposal (2012) is still in negotiation, hence its anticipated spill over effects on all public sector websites have not been realised.</p>	100 % of public websites are accessible (end 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Adoption of the proposed Directive on the Accessibility of Public Sector Bodies' Websites COM(2012)721	Adoption of the proposal	The legislative process is ongoing. The co-legislators are examining the dossier in trilogue negotiations	Successful adoption of the Directive
Corrigendum: The result indicator has been modified to address an editorial error in the Management Plan 2015.			

Specific objective 3: To use the eGovernment Action Plan (2011-2015) as a tool for innovation of Public Administrations within the DSM Programme-based Non programme-based

Result indicator 1: eGov services take-up by citizens

Baseline	Current situation	Target
42 % (2011)	<p>Evaluation: 2013: 41% , 2014: 47%, 2015: 46%.</p> <p>The take up of eGovernment by citizens has improved since 2011 though the 50% objective was not met. Take up of eGovernment is the responsibility of Member States, whose policies impact on the take up figures.</p> <p>There is a wide disparity between Member States: Denmark applies a "Digital by Default" policy, and 84% of Danes but only 18% of Bulgarians used eGovernment services. Overall, 13 Member States have reached the 50% target, and three others are close to it.</p>	50 % (2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
eGovernment Expert Group	eGovernment Expert Group meetings	2 meetings held: June and November 2015	2 meetings of the Expert group per year
Planned evaluations: Final assessment of implementation of the eGovernment Action Plan 2011-2015, Q1 2016 to Q3 2016			

<p>Specific objective 4: Through the European Innovation Partnership on Active and Healthy Ageing(EIP AHA) add, by 2020, two healthy life years to the average healthy life span of European citizens</p>	<input type="checkbox"/> Programme-based <input checked="" type="checkbox"/> Non programme-based
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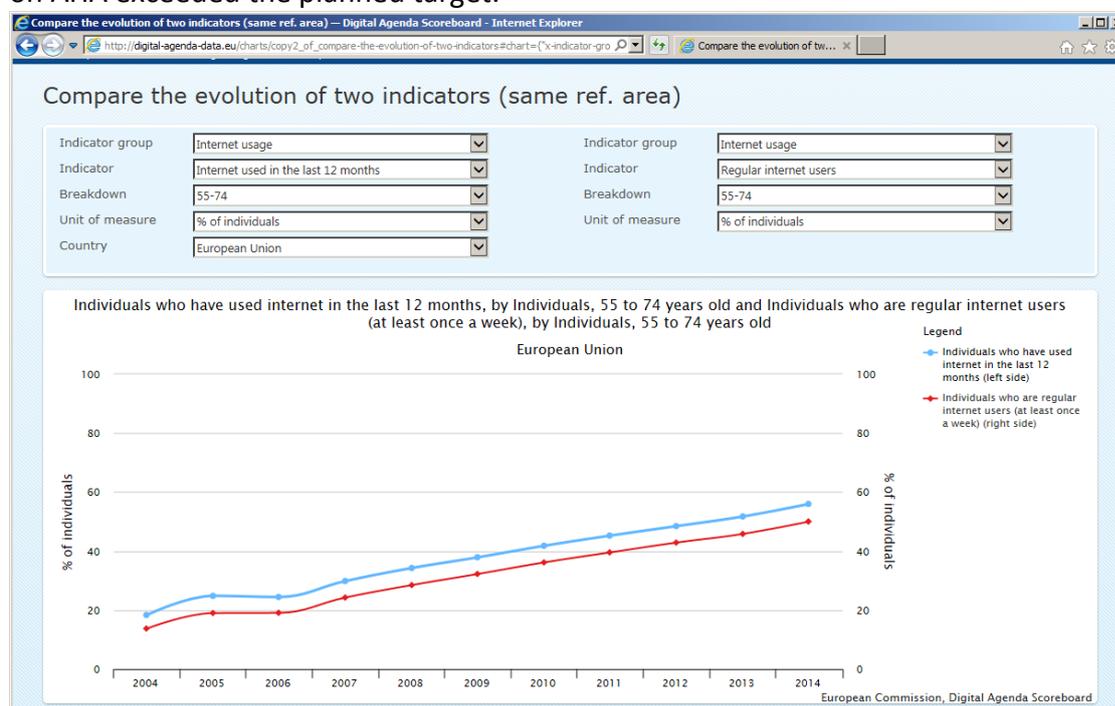
Result indicator 1: Growth of internet access and activity of people over 55 years
Source of data: Eurostat (DAE Scoreboard)

Baseline	Current situation	Target
2013: 51,8%	<p>51,6% for 2013 55,8% for 2014 58,7% for 2015</p> <p>10% increase every year proved to be too optimistic.</p>	At least 10% growth/year (by 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
New H2020 Research and Innovation projects	New H2020 research/innovation projects	27 new H2020 R&I projects have been realised in 2015	25 new H2020 R&I projects by 2015

Results from European Innovation Partnership - Active and Healthy Ageing	Proving good practices on innovation for active and healthy ageing available for sharing	The target has been achieved Done (433). Good practices collected by EIP on AHA partners. Release of the Online Version of the "EIP Repository of Innovative Practices" scheduled for February 2016	250
Impact measurement framework for the EIP-AHA	Availability of impact assessment framework and first evidence from EIP-AHA	Implemented;. completed development of the MAFEIP methodology and tool and applied to 2 test cases.	First public release of EIP-AHA impact and evidence framework
AAL JP2 innovation projects	Launch of AAL JP2 including co-decision and launch of first call	The Launch of AAL JP2 including co-decision and launch of first call was completed in 2015.	Programme fully operational

The targets were achieved in all criteria; the number of good/innovative practices in EIP on AHA exceeded the planned target.



Specific objective 5: Through the European Innovation Partnership on Smart Cities and Communities speed up Programme-based

creation of a market for smart city solutions by integrating technologies across the ICT, energy and mobility sector to enable cities to outperform 20/20/20 targets while strengthening local job creation and become more responsive to the citizens' needs Non programme-based

Result indicator 1: Number of Cities involved in replication and/or dissemination of solutions identified in EU led initiatives

Source of data: The value of this indicator will be monitored by a support action stemming from the 2014 Smart Cities call

Baseline	Current situation	Target
0 (1 June 2014)	First projects started in January 2015; they are not yet mature for replication/dissemination	50 (2020)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
EIP Smart Cities and Communities	Action clusters	established and working as planned	6 Action clusters set up and running; 3 of the monitored by CNECT (Integrated Infrastructures & processes, , Citizen Focus, Business Models & Finance)
European Smart Cities framework	ESCF	no common agreement with other involved DGs	European Smart Cities framework developed
EC Management of Lighthouse Projects	Light House Projects	3 Lighthouse projects launched	3 Large scale pilots launched; common kick-off event organised (2015)
The idea of a common European Smart Cities Framework was presented to other DGs in Q1 2015; no agreement was reached whether and how to realise such a project.			

Specific objective 6: To improve health and wellbeing of EU citizens and to ensure innovation, quality and sustainability of health systems by the use of ICT and to support growth and competitiveness of the EU eHealth related industry Non programme-based

Result indicator 1: Number of scientific publications

Source: H2020 monitoring system

Baseline	Current situation	Target
none	18 scientific articles	To be developed on the basis of first H2020 results

Result indicator 2: Level of general practitioners (GPs) exchanging medical patient data with other healthcare providers and professionals
Source: Benchmarking Deployment of eHealth among General Practitioners 2011/0033
Replication of the study on the deployment of eHealth among General Practitioners is planned for 2016 and the European Hospital Survey is planned for 2016

Baseline	Current situation	Target
20% of GPs exchanged medical patient data with other healthcare providers and professionals (2011)	The study will be launched in 2016.	40% of GPs exchanged medical patient data with other healthcare providers and professionals (2016)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Engagement & results of the Public consultation on the mHealth Green Paper	Follow-up actions to the Green Paper on mHealth	Establishment of the working groups on the Code of Conduct and on the reliability and validity of mHealth apps' data	eHealth Action Plan
Implementation plan H2020 SC1 Call2	Number of new R&I projects launched	15 projects funded. The target of could not be reached because 2 PCP projects were cancelled just before signature.	16 new projects in 2015
Planned evaluations: Intermediate evaluation of the eHealth Action Plan 2012-2020: Q4 2014 until Q4 2016.			
As regards the intermediate evaluation of the eHealth Action Plan, the objectives of the evaluation are to judge the accomplishments of the eHealth Action Plan 2012 -2020 after three years of operation and identify and analyse any weaknesses that may prevent implementing the Action Plan fully by 2020. Through the public consultation that is intended to be launched in Q2 2016, DG CONNECT will identify areas in which more in-depth actions should be taken and point out new topics that have emerged since the publication of the Action Plan in December 2012.			
The replication of the study on the deployment of eHealth among General Practitioners is planned for 2017. The European Hospital Survey is currently not scheduled.			

2.2. Horizon 2020

2.2.1. Future & Emerging Technologies: Fostering radically new technologies

Relevant general objective(s):
To build a society and a world-leading economy based on knowledge and innovation across the whole Union, while contributing to sustainable development

Specific objective 1: Excellent science – Future and Emerging Technologies – to foster radically new technologies by exploring novel and high-risk ideas building on scientific foundations

Programme-based : H2020
 Non programme-based

Result indicator 1: European companies ' share of HPC market (systems and software)
Source: (IDC study on HPC)

Baseline	Current situation	Target
ca. 4 % in 2009	4.5% in 2014*	12.5 % (by 2020)

Result indicator 2: Number of publications in peer-reviewed high-impact journals per 10 Mio. € of EU funding
Source: GRAPHENE, HBP , H2020 Beneficiary reporting)

Baseline	Current situation	Target
FP7 unknown (2013)	n/a	>= 25 (for H2020)

Result indicator 3: Patents applications and patents awarded in FET (and patent citations)
Source: H2020 Beneficiary reporting

Baseline	Current situation	Target
FP7 - unknown (2013)	n/a	1 per 10M€ (for H2020)

Main outputs in 2015:

Description	Indicator	Current situation	Target
Portfolio of FET research projects	Investment in FET research (in other domains than HPC)	<ul style="list-style-type: none"> • 120M€ invested in FET research • 13 FET Pro-active projects (40 M€). • 42 FET Open projects (80M€) (grants signed in 2014-2015)*** 	115M€ invested in FET Research (outside HPC) - Launch of 10 FET Pro-active projects (35M€) and launch of the first FET-Open projects selected (80M€)
HPC technology for exascale computing	Investment in FET research in High Performance Computing (HPC)	<ul style="list-style-type: none"> • 98 M€ invested in HPC research for future exascale computing • 21 HPC research projects (grants signed in 2015) 	97.4M€ invested in new projects launched on HPC
Engaging new Research & Innovation Partners	# of new partners that will be associated to the FET Flagships	<ul style="list-style-type: none"> • 18 new partner organisations for HBP; 44 for Graphene**** 	>= 10 new organisations cooperating with each Flagship

* This indicator relates to the supply of HPC systems sold above 360 k€, no data is available for 2015 in the latest IDC study (issued in June 2015). This indicator is a KPI of the cPPP on HPC and will be refined and measured by the ETP4HPC (private side of the cPPP).

** Data on patent and publication for FET will be available through beneficiaries' reporting, once a critical mass of H2020 projects have been ended (expected as of 2019).

*** 5M€ of extra budget were allocated to the FET Pro-active call using the budgetary flexibility foreseen in the FET Work Programme. The budget enabled the funding of additional high value projects beyond the initial target.

**** The target for the number of new partners that will be associated to the FET Flagships has been exceeded, for both Flagships.

2.2.2. eInfrastructures

Relevant general objective(s):
To build a society and a world-leading economy based on knowledge and innovation across the whole Union, while contributing to sustainable development

Specific objective 1: Excellent science – Research infrastructures - to endow Europe with world-class research infrastructures which are accessible to all researchers in Europe and beyond and fully exploit their potential for scientific advance and innovation

Programme-based: H2020
 Non programme-based

Result indicator 1: Total bandwidth available in GÉANT
Source: Provided by DANTE/GÉANT

Baseline:	Current situation	Target
1,127,150 GbpsKm (in 2011)	3.332.432 Gbpskm (October 2015)	4,600,000 GbpsKm (April 2015)

Result indicator 2: Trend of cross border Data traffic over the research networks_
Source: to be provided by DANTE and TERENA

Baseline	Current situation	Target
43,634 Tb per month (April 2013)	54,230 Tb per month (October 2015)	Continuously growing traffic; 48,000 Tb per month (April 2015)

Result indicator 3: Computing cycles available for open transnational access
Source: PRACE, EGI

Baseline	Current situation	Target
Last PRACE (Partnership for Advanced Computing in Europe) call: 1273 million core hours awarded 1790 Million Core hours provided by EGI (European Grid Infrastructure) (2012)	<ul style="list-style-type: none"> • PRACE awarded in 2015 in total 1.556 million core hours (from the 10th and 11th call the 10th call with 1.044 million core hours and 512 million core hours, respectively). • EGI provided in 2015 in total 2778 Million* Core hours 	Constant increase

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Virtual Research Environments	Amount of funding requested in this Area	<p>The number of proposals for 'e-infrastructures for virtual research environments (VRE)' exceeded all expectations.</p> <ul style="list-style-type: none"> • 94 proposals received • 8 proposals are funded for 42.41 MEUR. 	High participation in calls for VREs
HPC (High Performance Computing)	Support to the European HPC infrastructure	<ul style="list-style-type: none"> • 8 HPC Centres of Excellence (CoE) have been launched, in several important areas e.g. energy, biomolecular research, material sciences, Weather and Climate • The project Sesamenet establishing a Network of HPC Competence Centres for SMEs has been launched. • The HPC-FET Call for provision of exascale technology was successfully completed and selected projects launched (see FET section). • The report of the study on the impact of the European HPC strategy to support the report of the EC to EP and Council in 2015 was delivered. 	<ul style="list-style-type: none"> • First set of HPC Centres of Excellence identified (in 2015) • Launching of the Network of HPC Competence Centres for SMEs (beginning 2015) • First HPC-FET Call for proposals and the corresponding set of projects for the provision of exascale technology; (Call in 2014) Projects launched by 2015) • Successful completion of the study on the impact of the European HPC strategy to support the report of the EC to Council and Parliament in 2015 (Final study report expected mid-2015)

As regards Indicator 1: there was a significant reduction of this metric as a result network optimisation, where GÉANT can deliver the same service to its NREN members but use fewer network assets, in a process called "network convergence". The baseline/target for this indicator has to be updated accordingly.

As regards Indicator 3: the reduction in the number of PRACE Tier-0 cycles is caused by two factors: (1) Member States have not agreed yet on the continuation of the PRACE agreement (due in mid-2015) into a new PRACE 2, which will make more computing cycles available to the community and (2) the capability in the PRACE Calls is at present made available only by Spain and Italy whose available computer cycles for the European level are limited. Germany and France have already provided their "quota" of cycles for the present PRACE agreement. These factors indicate (1) a problem in the governance of the HPC at European level due to the lack of a timely coordination and pooling of HPC resources and (2) the supercomputing capacity in Europe is low.

As regards indicator 3, this figure is an estimate which has been calculated from the relationship between the CPU hours and core hours derived from the statistics the Commission has received from EGI. Due to technical developments in the computing infrastructure and workflows, EGI has recently switched from measuring core hours into measuring CPU hours. The two measures are nevertheless directly correlated. The received corresponding figure for CPU hours for 2015 is 21,828 Million CPU.

Relevant general objective:
To build a society and a world-leading economy based on knowledge and innovation across the whole Union, while contributing to sustainable development.

Specific objective 1: Industrial leadership – To boost Europe's industrial leadership through research, technological development, demonstration and innovation in the following enabling and industrial technology: information and communication technologies Programme-based: H2020 Non programme-based

Result indicator 1: Patent applications and patents awarded in the different enabling and industrial technologies
Source: Annex II – Horizon 2020 specific programme

Baseline	Current situation	Target
New approach	No results yet as this is a new approach under H2020.	3 patent applications per € 10 million funding (Year: 2020, source: DG RTD's framework for monitoring,

		evaluation and reporting on Horizon 2020)
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Result indicator 2: Share of participating firms introducing innovations new to the company or the market (covering the period of the project plus three years)

Source: Annex II – Horizon 2020 specific programme

Baseline:	Current situation	Target
New approach	No results yet as this is a new approach under H2020.	To be developed on the basis of first Horizon 2020 results (Year: 2020, source: DG RTD's framework for monitoring, evaluation and reporting on Horizon 2020)

Result indicator 3: Number of joint public-private publications

Source: Annex II – Horizon 2020 specific programme

Baseline	Current situation	Target
New approach	No results yet as this is a new approach under H2020.	To be developed on the basis of first Horizon 2020 results (Year: 2020, source: DG RTD's framework for monitoring, evaluation and reporting on Horizon 2020)

Specific objective 2: A new generation of components and systems & Factories of the Future PPP

Programme-based: H2020

Non programme-based

Result indicator 1: Patent applications in advanced computing

Baseline	Current situation	Target
The average number of patents was 0,6 patents per 10 Million euro funding in 2013	The data from H2020 reporting will be available only in 2017-2018.	At least 2 patent applications per 10 MEuro funding

Result indicator 2: Patent applications in Cyber-physical systems		
Baseline	Current situation	Target
The average number of patents was 0,6 patents per 10 Million euro funding in 2013	The data from H2020 reporting will be available only in 2017-2018.	At least 2 patent applications per 10 MEuro funding

Result indicator 3: Take-up of ICT by European Companies		
Source: Sygma& Eurostat		
Baseline	Current situation	Target
<p>The Digital Intensity score is based on counting how many out of 12 technologies are used by each enterprise. Then they are divided into four clusters of digital intensity: Very Low (scores 0-3), Low (score 4-6), High (score 7-9), Very High (score 10-12). The list of technologies includes: usage of internet by a majority of the workers; access to ICT specialist skills; fixed broadband speed > 30 Mbps; mobile devices used by more than 20% of employed persons; has a website; has some sophisticated functions on the website; presence on social media; use an ERP software; use a CRM software; share electronically supply chain management information; does e-sales for at least 1% of turnover; exploit the B2C opportunities of web sales.</p> <p>This is the first measurement.</p>	21% of the enterprises in the EU28 score high or very high on their digital intensity.	An increase of the digital intensity score at each measurement..

Main outputs in 2015:			
Description	Indicator	Current situation	Target

European Strategy for R&I on embedded and cyber-physical systems endorsed by the community	Participation of SMEs and other industry in the CPS projects	58% participants are from industry, 27% are SME	Industrial participation higher than 40% in 2014 going up to 50% by 2018, SMEs participation higher than 20% in 2014 going up to 30% by 2018
European Strategy and Programme for R&I on Advanced Computing	Participation of SMEs and other industry in the advanced computing projects	45% participants are from industry, 32% are SME	Industrial participation higher than 40% in 2014 going up to 50% by 2018, SMEs participation higher than 20% in 2014 going up to 30% by 2018
European Strategy for R&I on ICT for Factories of the Future	Participation of SMEs and other industry in the Factories of the Futures projects	67% participants are from industry, 40% are SME	Industrial participation higher than 40% in 2014 going up to 50% by 2018, SMEs participation higher than 20% in 2014 going up to 30% by 2018
High quality R&I projects	Contribution to standards	30%	At least 20% of projects contributing to standards
High quality R&I projects	Project Success Stories	8	At least one major technology breakthroughs per year from running projects (in terms of functionality or performance)

Specific objective 3: Future Internet	<input checked="" type="checkbox"/> Programme-based: H2020 <input type="checkbox"/> Non programme-based
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Result indicator 1: Number of connected objects in the EU
Source data: The 2013 baseline was obtained by merging several studies from industry, such as the one by Ericsson (<http://www.ericsson.com/res/docs/whitepapers/wp-50-billions.pdf>) and the one by Cisco (http://www.cisco.com/web/about/ac79/docs/innov/IoT_IBSG_0411FINAL.pdf). The same or similar sources (in that case, the data will be checked for consistency) will be used to determine the progress of the indicator on an annual basis for the year x-1

Baseline	Current situation	Target
2,5 billion (estimated) (2013)	6 billion connected objects globally	25 billion (estimated) (2020)

Result indicator 2: Share of global market that is accessed by EU manufacturers in network equipment
Source: The 2012 baseline was obtained by merging several sources (official statistics such as NACE (26.3) and Eurostats, and studies from Gartner). The same or similar sources (in that case, the data will be checked for consistency) will be used to determine the progress of the indicator on an annual basis for the year x-1

Baseline	Current situation	Target
40% (estimated) (2012)	Steady market share of Eu industry at ~40% of global markets	40% (estimated) (2020)

Result indicator 3: Number of Enablers
Source: To be measured by the project FI-CORE (Future Internet Core)

Baseline	Current situation	Target
50 (2014)	The target of 100 enablers in 2015 has not been reached because the number of generic enablers made available has been limited to those which passed the high quality standards in terms of documentation, functionality and performance. From the about 65 generic enablers, 42 have passed this initial quality check. The remainder of the generic enablers and the some 200 specific enablers will undergo a qualification process in the FIWARE open source community process.	100 (2015)

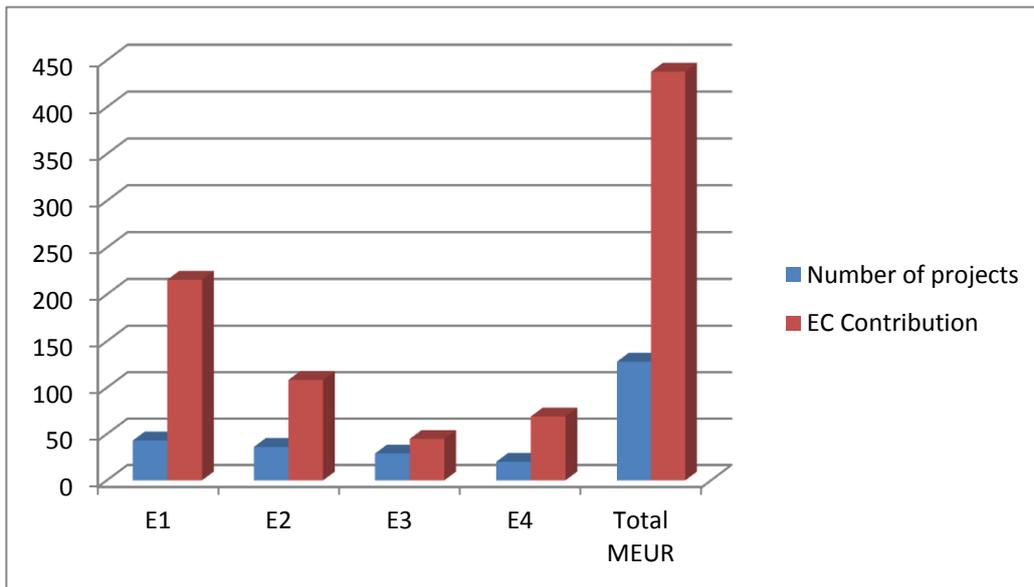
Result indicator 4: Assessment of the effectiveness of CAPS (Collective Awareness Platforms For Sustainability and Social Innovation) in different application areas by 2015 Source: To be measured by the participating pilots as part of their reporting in 2015		
Baseline	Current situation	Target
0% (2014)	The effectiveness of the pilots has not been assessed as the first batch of pilots comes during the period December 2015 to autumn 2016.	30% of the pilots prove the effectiveness of different participatory innovation paradigms (2015)

Result indicator 5: Percentage of the facilities still available to experimenters one year after the end of the EU funding Source: Periodic reports by facility projects		
Baseline	Current situation	Target
0% (2014)	60%. The percentage of the facilities still available to experimenters one year after the end of the EU funding was, 60% (3 out of 5 projects finished) in 2015	50% (stretched) (by end 2015)

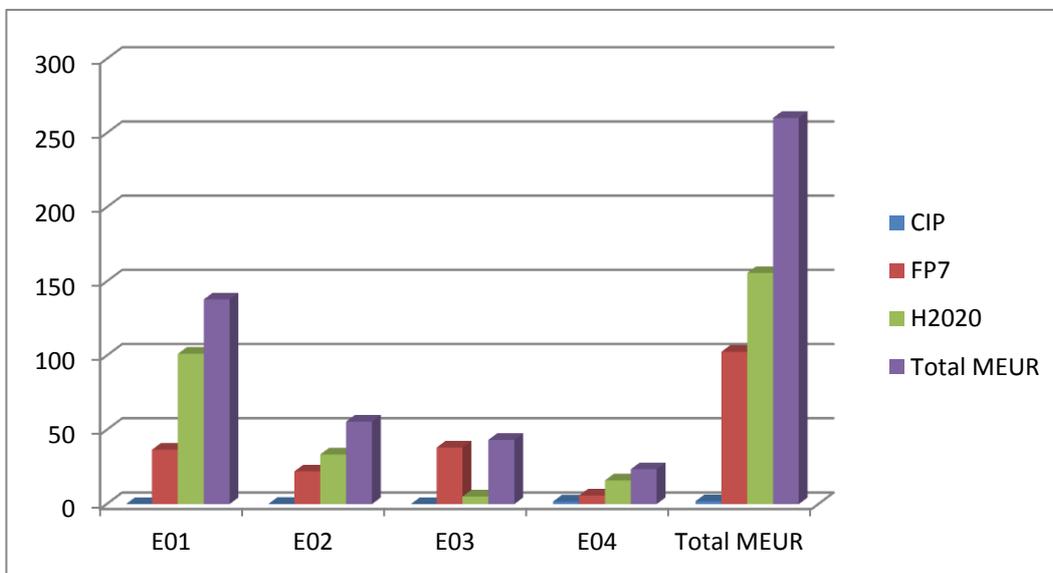
Main outputs in 2015:			
Description	Indicator	Current situation	Target
Industrial participation in 5G PPP Project portfolio	Industry participation	50% (Large) 14% (SME)-	Large Industry led actions: 35% (Large)/12% (SME)-2014, 40% (Large)/15% (SME)-2016, 40% (Large)/20% (SME)-2020 and Small disruptive actions: 12% (SME)-2014, 15% (SME)-2016, 20% (SME)-2020
Dissemination of results of the projects of the Internet of Things (IoT) project portfolio	Number of publications in peer-reviewed high impact journals and number and quality of conference/works hops papers and	More than 5 peer reviewed papers by projects published or presented at conferences.	5-10 per project

	proceedings		
Private organisations participating in projects of the software project portfolio	Private commercial organisations in projects (% of EU total funding in related topics/strategic objectives)	27 out of 60 organisations (45%)	51%
Number of projects launched by the Future Internet PPP	Number of projects	38	29
Number of SMEs & Web entrepreneurs involved in the Future Internet PPP projects	Number of SMEs & Web entrepreneurs	835	1000
Number of large scale trials of the Future Internet PPP	Number of large scale trials	more than 100 trials (5 large scale pilot projects)	57
Number of replications of the Open Innovation Suite FIWARE	Number of replications of the Open Innovation Suit	17	10
Cumulative number of pilots in the Collective Awareness Platforms (CAPS) project portfolio	Cumulated number of pilots	36	37
Number of experiments running on the Future Internet Research and Experimentation (FIRE) facilities	Total number of experiments running on the FIRE facilities	45 (2015 was the first year of measurement)	10% yearly increase compared to previous year
Evaluation by the experimenters on the use of the Future Internet Research and Experimentation (FIRE) facilities	Average evaluation by experimenters	4.3	4 (ranked from 0 to 5) (by end 2016)

H2020 grant agreements signed by Directorate E in 2015



Research grants paid by Directorate E in 2015



Specific objective 4: Content Technologies information management Programme-based:

Result indicator 1: Increase the participation of Creative Industries SMEs in the R&I projects
Source: internal Commission database (PPM, Sygma)

Baseline	Current situation	Target
38% SME participation in 2013 (FP7 call 10)	<p>Percentage of SMEs (2015): 43,2%</p> <p>Percentage of SMEs (2014): 51,2%</p> <p>Percentage of SMEs (2014+2015 calls): 49,1% higher. Although there was a substantial increase, the target of >50% SMEs participation by 2015 could not be reached, because CCI embrace subsectors which are very heterogeneous in terms of company structures, turnover, ...</p> <p>Consequently, SME's participation in projects is much more difficult than that of research organisations. The vast majority of SMEs must first identify the benefits that can emerge from research and from being recipient of research funding.</p>	>50% SMEs participation (by 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Increase ICT knowledge excellence through research projects	Number of scientific papers and patents generated by funded projects	The data is not available yet (data to be provided by the eScience unit)	20 scientific publications per 10 Mio €.
Wider use of Europeana	No. of users accessing Europeana services	<ul style="list-style-type: none"> • 6,1 million visits to Europeana Websites (16% higher than in 2014) • 5,2 million people reached via social media (16% higher than in 2014) • 84,6 million impressions of Europeana content, (35% higher than in 2014): <ul style="list-style-type: none"> ○ 20,6 million impressions on Europeana websites ○ 13,2 million impressions on social media ○ 50,8 million 	increase by 10%

		impressions of Europeana content on Wikimedia 225,004 users' engagement through social media (Facebook, Pinterest, Google+)	
Follow-up of implementation by Member States of the Recommendation on the digitisation and online accessibility of cultural material and digital preservation ("the Recommendation") and Council Conclusions of 10 May 2012	Increase in percentage of cultural collections digitised across Europe and accessible online enabling innovative added-value products or services	According to the ENUMERATE Survey Report 2015 , on average, in 2015, 23% of the heritage collections is digitised, according to the respondents while in 2014 this figure was 17%.	increased by 10%

Specific objective 5: Robotics	<input checked="" type="checkbox"/> Programme-based: H2020 <input type="checkbox"/> Non programme-based
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Result indicator 1: Europe's stake of the global market in industrial robots		
Baseline	Current situation	Target
25% in the global industrial robotics market (2011)	30% (value in 2014) There are no figures for 2015 available yet	35% in the global industrial robotics market (2015-2020)

Result indicator 2: Europe's stake of the global market in domestic and in professional service robots		
Baseline	Current situation	Target
50% of professional service market in 2011 and less than 5% of domestic service robots (2011)	59.6% of professional service robotics market (2014) 13.7% of domestic and personal robots (2014) There are no figures for 2015 available yet	20% stake in the global market in domestic service robots and 65% in professional service robots (2015-2020)
Main outputs in 2015:		

Description	Indicator	Current situation	Target
Public-Private Partnership in robotics	Level of financial industrial investment in the PPP	€500 million (estimate of the investment of European companies and universities in R&D&I in response to the public side investment)	2.8 billion EUR over 7 years (2015-2020)
Public-Private Partnership in robotics	Number of members in the robotics PPP	253 (beginning of 2016)	200 (2015)

Specific objective 6: Macro- nano-electronics, Photonics	<input checked="" type="checkbox"/> Programme-based: H2020 <input type="checkbox"/> Non programme-based
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Result indicator 1: Europe's share of production of semiconductors in value		
Source: Data coming from the European semiconductor industry association (EECA-ESIA) www.eeca.eu/esia . ESIA data is based on reports from (WSTS - World Semiconductor Trade Statistics: www.wsts.org . Data collected at least annually, and often quarterly		
Baseline	Current situation	Target
<10% (2013)	The reported EU share of semiconductor production is 8.1% in 2015.	20% of value creation in Europe (2024)

Result indicator 2: European market share for photonics		
Baseline	Current situation	Target
Europe's 2011 position was at 18% of total photonics production (~66/350 B€)	Up to date figures are not available, but this will be measured at mid-term and at the end.	Europe supplying at least 18% of market share of photonics by 2020

Main outputs in 2015:			
Description	Indicator	Current situation	Target
R&D&I actions	Easy access to design and manufacturing of micro- and nanoelectronic components and	<i>EUROPRACTICE</i> : between 2014 and 2015, the membership included 621 institutions, of which 33 were new. Overall, the participation of institutes was the	Increase by 20% users of design and manufacturing services

	systems including for SMEs and research - develop skills	same across recent years.	(2014-2020)
High quality R&I projects	Project Success Stories	<p>MOSAIC: First spintronics-based system for low/high frequency synthesis and detection demonstrated, confirming the forefront position of Europe for nanoscale microwave spintronic components and systems.</p> <p>COMPOSE3: three-dimensional (3D) integration of high mobility 14 nm node MOSFET devices on the 300 mm silicon platform.</p> <p>SPIRIT: a programmable, flexible mux/demux based on a novel approach with Micro-Ring Resonators for optical communication has been fabricated allowing superchannel aggregation and segmentation.</p> <p>Fullphase: the first prototype of the handheld probe ultrasound photo-acoustic imaging system with several beyond state of the art components has been produced together with very novel patented data processing techniques (for detection of diseases).</p>	<p>At least three major technology breakthroughs per year from running projects (in terms of functionality or performance, e.g.: achieving world record performance in optical data transmission, sensitivity / speed of detection of diseases, etc.)</p> <p>(2014-2015)</p>
Awareness raising in photonics	Coverage of the Horizon 2020 work programme	<p>In 2014, the industrial participation is 54%, and 29% SME participation;</p> <p>In 2015, it is 51% and 27% respectively (combined: 52%, and 28% resp.)</p>	<p>At least 50% of industrial participation in H2020 calls, with 20% SMEs (2014 to 2015)</p>

Specific objective 7: Horizontal ICT Innovation actions	<input checked="" type="checkbox"/> Programme-based: H2020
	<input type="checkbox"/> Non programme-based

Result indicator 1: % of H2020 ICT budget dedicated to innovation activities		
Source: internal DG CONNECT Statistics		
Baseline	Current situation	Target
FP7 and CIP ICT PCP. Estimation is between 25-30%	47.5% without CSAs and 50% if we consider half of CSAs support innovation	H2020 2nd WP 2016-2017: target is 50% (2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Project implementation support for Open Disruptive Innovation (ODI) and Fast Track to Innovation (FTI): work programme definition; information days, Memorandum of Understanding; evaluation and monitoring	ODI+FTI: contribution to WP 2015	SME Instrument (ODI) 43 MEUR (2015) FTI 18.65 MEUR (2015)	ODI 123 MEUR (2016-2017) FTI 18.65 MEUR (2016)

Specific objective 8: Cross cutting activity: ensure open access to scientific publications and data	<input type="checkbox"/> Programme-based <input checked="" type="checkbox"/> Non programme-based
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Result indicator 1: Taken up of open access (OA) practises (number of Member States with national priorities or strategies on open access)		
Baseline	Current situation	Target
13 MS (2010/2011)	19 MS with national OA strategies or national R&I strategies mentioning OA; but all MS have some activities on OA in 2015.	28 MS (2016)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Open Access take up under Horizon 2020 and in the Member States	Open Access to research data - take up of both proposals and projects opting in (from areas not in the pilot) and	35% opt-out; 12% opt-in of 3699 signed Grant Agreements is the status in June 2015. This is a reasonable level during the pilot phase; when use of the Data Management	The MP2015 target of an "overall annual increase of 3% in projects participating in the Open Research

	opting out (from areas in the pilot) of participating in the OA to data pilot action	Plan becomes mandatory all will be "in" by default	Data Pilot by the end of 2015" is no longer relevant given the expanded scope of the pilot and also in view of the plans to make provision of a Data Management Plan mandatory.
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2.2.3. Societal challenges

Relevant general objective(s):
To build a society and a world-leading economy based on knowledge and innovation across the whole Union, while contributing to sustainable development

Specific objective 1: Health, demographic change and well-being

Programme-based H2020
 Non programme-based

Result indicator 1: Number of patent applications and patents awarded in the area Source: Annex II – Horizon 2020 Specific programme		
Baseline	Current situation	Target
New approach	The H2020 projects started in 2015, therefore no patents in 2015.	On average 2 patent applications per EUR 10 million funding (Year 2020, source: DG RTD framework for monitoring, evaluation and reporting on Horizon 2020)

Result indicator 2: Number of prototypes and testing activities in the area
Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	The H2020 projects started in 2015, therefore no prototypes in 2015.	To be developed on the basis of first H2020 results

Result indicator 3: Number of joint public-private publications in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	18 scientific articles and 2 posters at the conferences in 2015	To be developed on the basis of first H2020 results

Specific objective 2 : Societal challenges - Health, demographic change and well-being

Result indicator 4: Number of prototypes and testing activities in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	The H2020 projects started in 2015, therefore no prototypes in 2015.	To be developed on the basis of first H2020 results

Result indicator 5: Number of joint public-private publications in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	18 scientific articles and 2 posters at the conferences in 2015	To be developed on the basis of first H2020 results

Main outputs in 2015:

Description	Indicator	Current situation	Target
Implementation plan H2020 SC1 Call2	Number of new R&I projects launched	39 projects	41 projects (2015)

Specific Objective 3 : Societal Challenge – Secure, clean and efficient energy

Result indicator 1: Number of prototypes and testing activities in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet	To be developed on the basis of first H2020 results

Result indicator 2: Number of joint public-private publications in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet	To be developed on the basis of first H2020 results

Main outputs in 2015:

Description	Indicator	Current situation	Target
New ICT-based solutions for energy efficiency	Number of projects addressing energy efficiency	4 projects launched	4-5 (2015)

Specific Objective 4 : Societal Challenge – Smart, green and integrated transport

Result indicator 1: Number of prototypes and testing activities in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015.	To be developed on the basis of first H2020 results

Result indicator 2: Number of joint public-private publications in the area of the various societal challenges

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015.	To be developed on the basis of first H2020 results

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Actions to support the development and deployment of connected, automated road vehicles in Europe	Number of projects and coordination and support actions	4 R&I projects and one Coordination and Support action expected to be launched in Q2/2016 (evaluated in 12/2015)	2-4 R&I projects and 1-2 Coordination and Support actions launched stemming from the 2015 call (Q4 2015)

Specific Objective 5 : Societal Challenge – Climate action, environment, resource efficiency and raw materials

Result indicator 1: Number of prototypes and testing activities in the area

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015	To be developed on the basis of first H2020 results

Result indicator 2: Number of joint public-private publications in the area of the various societal challenges

Source: Annex II – Horizon 2020 Specific programme

Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015.	To be developed on the basis of first H2020 results

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Cluster of water innovation projects stemming from FP7 and H2020 calls	Progress on cluster project implementation	Cluster established; cooperation among projects on-going (e.g. on ICT 2015 event)	Cluster of water innovation projects set up and running (Q2 2015)

Specific Objective 6 : Societal Challenge – Europe in a changing world – inclusive, innovative and reflective societies

Result indicator 1: - Number of prototypes and testing activities in the area Source: Annex II – Horizon 2020 Specific programme		
Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015.	To be developed on the basis of first H2020 results

Result indicator 2: - Number of joint public-private publications in the area Source: Annex II – Horizon 2020 Specific programme		
Baseline	Current situation	Target
New approach	No H2020 results available yet at the end of 2015.	To be developed on the basis of first H2020 results

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Manage calls and launch pilots	Number of R&I projects	EURO – 6: 3 IA projects and 1 CSA INSO 1: 4 IA projects and 1 CSA INSO9: 2 phase 1 projects and 1 phase 2 project	EURO 6: 2-5 projects 1 CSA; INSO-1 3-7 projects, 1 CSA, INSO 9 8 phase 1 projects, 2-7 Phase 2 projects (2015)

Specific objective 7: Secure societies – Protecting freedom and security of Europe and its citizens

Result indicator 1: Number of prototypes and testing activities in the area Source: Annex II – Horizon 2020 Specific programme		
Baseline	Current situation	Target
New approach	No H2020 results available yet	To be developed on the basis of first H2020 results

Result indicator 2: Number of joint public-private publications in the area Source: Annex II – Horizon 2020 Specific programme		
Baseline	Current situation	Target
New approach	No H2020 results available yet	To be developed on the basis of first H2020 results

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Cyber security strategy implementation in relation to R&D ⁵⁰	Number of new projects launched	There were 13 project launched. Less than 30, because the projects were bigger.	30 new projects per year

2.3. Connecting Europe Facility

Relevant general objective(s):

Contributing to smart, sustainable and inclusive growth, in line with the Europe 2020 Strategy, by developing modern and high-performing trans-European networks which take into account expected future traffic flows, thus benefiting the entire Union in terms of improving competitiveness on the global market and economic, social and territorial cohesion in the internal market and creating an environment more conducive to private, public or public-private investment through a combination of financial instruments and Union direct support where projects could benefit from such a combination of instruments and by appropriately exploiting synergies across the sectors

Specific objective1: Accelerating the deployment of fast and ultrafast broadband networks and their uptake, including by SMEs

Programme-based : CEF
 Non programme-based

Result indicator 1:		
N° and % of households expected to be covered by high speed broadband (30 Mbps and above)		
Baseline	Current situation	Target
End of 2012: 53,7%	68% (Jan. 2015)	100% (2020)

Main outputs in 2015:

⁵⁰ This specific objective is equally supported by other policy and research objectives

Description	Indicator	Current situation	Target
Funding of CEF projects	Number of projects funded under CEF	No projects were funded in 2015 due to the delayed adoption of the debt instrument (July 2015 instead of September 2014). The equity has not been finalised yet.	3-5
Establishment of funding structures	Success stories of efficient funding structures	The project bond pilot is the first of its type in Europe and although linked to a CEF pilot, it can be considered as a success story since the experience gained by the EIB in structuring has led to more project bonds being offered for other broadband projects under EFSI.	3-5

Digital service infrastructures developed and deployed across Europe

Relevant general objective(s)²:
Contributing to smart, sustainable and inclusive growth, in line with the Europe 2020 Strategy, by developing modern and high-performing trans-European networks

Specific objective: Promoting the interconnection and interoperability of national public services online as well as access to such networks

Programme-based: CEF
 Non programme-based

Result indicator 1: Availability of three building block DSIs in all Member States		
Baseline	Current situation	Target
0 (2014)	3 building blocks available: <ul style="list-style-type: none"> • eDelivery in 15 MS and 3 Associated countries • eID: 14 MS and 1 Associated Country • eSignature: The trusted list enabling the use of eSignature as part of the trust backbone has been deployed in the 28 	15 Member States (end 2015)

	Member States	
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Main outputs in 2015:			
Description	Indicator	Current situation	Target
Successful launch of calls for CEF generic services	Rate of commitment of the CEF budget	100%	100%

2.4. MEDIA

Relevant general objective(s):
To foster the safeguarding, development and promotion of European cultural and linguistic diversity and the promotion of cultural heritage and to strengthen the competitiveness of the audio-visual sector, with a view to promoting creative, innovative, sustainable and inclusive growth

Specific Objective 1: To promote the transnational circulation of cultural and creative works and operators and reach new audiences in EU and beyond, with a particular focus on children, young people, people with disabilities and under-represented groups

Programme-based: Media Sub Programme
 Non programme-based

Result indicator 1: Global audience of European films in cinemas (MEDIA sub-programme): Number of admissions for non-national European films in Europe and European films worldwide (12 most important non-European markets) in cinemas *based on the number of cinema tickets sold*
Source: Annual report of the European Audio-visual Observatory; Rentrak database (non-European markets)

Baseline (2009)	Current situation (2014)	Milestones (2017)	Target 2020
EU: 71 Million	83 Million	71 Million	71 Million
Worldwide: 61 Million (2010)	82 Million	85 Million	85 Million

Result indicator 2: Market share of European audio-visual works in Europe (MEDIA sub-programme): % of European audio-visual works programmed in cinemas, on TV and on digital platforms in the EU

Source: annual report of the European Audio-visual Observatory

Baseline (2009 & 2010) ⁵¹	Current situation	Target (2017)
Cinemas: 59%	52% (2014)	59%
TV: 39%	38% (2013)	66.4%
Digital platforms: 27% (2015)	27% (2015)	55%

Result indicator 3: Production of European video games (MEDIA sub-programme): The number of European video games produced in the Union; as well as in the countries participating in the Programme. Expressed for the 5 largest national markets in the EU (DE, FR, IT, NL, UK) and as estimated turnover of companies producing video games⁵²

Source: PWC Global entertainment and media outlook 2013-2017 (2011), Global Games Market Report (2015)

Baseline (2011)	Current situation	Milestones (2017)
EU: €21,3 billion	€ 22 bn	€25bn
5 biggest markets €13,35 billion	€ 15 bn	€14,5bn

Main outputs in 2015 under the MEDIA Programme			
Description	Indicator	Current situation	Target
Network of cinemas screening majority of European films: number of cinema networks	Number of outputs produced	2	7
Film festivals and events: number of festivals and events	Number of outputs produced	176	639
Film literacy initiatives: number of projects	Number of outputs produced	25	96

⁵¹ Cumulative figures are used

⁵² The turn-over of the video-game sector is the best available proxy for this indicator. The number of video-games produced in Europe is currently unavailable. Considering that the tasks related to the development and production of one single game are usually split across several countries within and outside the EU, there is no accepted definition of what should be considered as a *European* video-game. Furthermore being the video game industry highly competitive, data such as the geographical spread of the workforce are not accessible.

New marketing and advertising tools: number of projects establishing e.g. film community platforms	Number of outputs produced	35	96
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The result indicators have been revised following a correction of the underlying methodology to take into account the growth of online distribution. The trend over the last five years does not show structural growth in theatrical admissions or TV audiences but rather resilient box-office together with a fast rise in digital distribution.

Output data is cumulative over period 2014-2020.

Specific objective 2: To strengthen the financial capacity of small and medium-sized enterprises and organisations in the cultural and creative sectors in a sustainable and balanced way across countries and sectors

Programme-based Media Sub Programme
 Non programme-based

Indicators highlighted with an asterisk () below are mandatory (from the programme legal basis). Their definition is included in the legal basis, however where additional specifications were added these are in italic*

Result Indicator 1: Guaranteed loan supply: The volume of loans guaranteed to SMEs in cultural and creative sectors in the framework of the Guarantee facility, categorised by national origin, size and micro, small and medium-sized organisations

Source: annual report from the European Investment Fund

Baseline (2012)	Milestones (2017)	Current situation	Target 2020
20 million EUR guaranteed loans ⁵³	180 million EUR	N/A	0,5 billion EUR

Result Indicator 2: Granted loan supply: Total volume of loans granted to SMEs in cultural and creative sectors in the framework of the Guarantee facility by participating financial intermediaries, categorised by national origin

Source: annual report from the European Investment Fund

⁵³ Breakdowns by national origin, size and sectors of SMEs or organisations and by participating financial intermediaries categorised by national origin are provided in the annual report from the European Investment Fund.

Baseline (2012)	Milestones (2017)	Current situation	Target 2020
20 million EUR granted loans ⁵⁴	Higher than the milestone set for the indicator 47	N/A	+5% compared to the target set for the indicator 47

Result Indicator 3: Average default rate of loans: The average default rate of loans granted to SMEs in cultural and creative sectors in the framework of the Guarantee facility
Source: annual report from the European Investment Fund

Baseline (2011) ⁵⁵	Milestones (2018)	Current situation	Target 2020
10% (estimated)	9%	N/A	8%

Result Indicator 4: Leverage effect of guaranteed loans: The leverage effect of guaranteed loans in relation to the indicative leverage effect (1:5,7) achieved by SMEs in cultural and creative sectors in the framework of the Guarantee facility
Source: annual report from the European Investment Fund

Baseline (2011) ⁵⁶	Milestones (2017)	Current situation	Target 2020
1 : 5,7 (estimated)	1 : 5,7	N/A	1 : 6

Result Indicator 5: Diversity of guaranteed loan supply: The number and geographical spread of participating financial intermediaries such as banks and other financial institutions providing access to finance for the cultural and creative sectors through the Guarantee facility
Source: annual report from the European Investment Fund

Baseline (2012)	Milestones (2017)	Current situation	Target 2020
2 financial institutions from	7 financial	N/A	10 financial institutions

⁵⁴ Breakdowns by national origin are provided in the annual report from the European Investment Fund

⁵⁵ There is no EU wide financial instrument for the sector. An estimated 10% according to the ex-ante impact assessment of the Creative Europe programme.

⁵⁶ There is no EU wide financial instrument for the sector. An estimated ratio of 1:5,7 according to the ex-ante impact assessment for the Creative Europe programme.

2 Member States	institutions from 5 different Member States		from 10 different Member States
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Result Indicator 6: Diversity of guaranteed loan beneficiaries: Number, national origin and sub-sectors of final beneficiaries benefiting from the Guarantee facility, categorised by national origin, size and sectors

Source: annual report from the European Investment Fund

Baseline (2012)	Milestones (2017)	Current situation	Target 2020
100 beneficiaries from audio-visual sector from 8 Member States ⁵⁷	3 000 beneficiaries from 5 sub-sectors, from 10 Member States	N/A	10 000 beneficiaries from 5 sub-sectors, from 15 Member States

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Establishment of a Cultural and Creative Sectors Facility: number of loans provided by banks to operators	Number of outputs foreseen	N/A	6573 (by 2020)
The Facility was not launched in 2015 because of delays in the negotiation of the Delegation Agreement with the EIF due to prioritisation of EFSI. It is expected to be launched in 2016.			

⁵⁷ Breakdowns by national origin, size and sectors of SMEs or organisations are provided in annual reports from the European Investment Fund.

Programme-based:
Media Sub Programme

Specific objective 3: Providing information to citizens explaining the direct impact of EU policies on their life

Non programme-based

Result indicator 1⁵⁸: Average number of Euronews viewers per day (Europe)⁵⁹

Baseline (Q1 2014)	Milestone (2017)	Current situation	Target (2019)
5,2 million	Stable	3,5 million	Stable ⁶⁰

Result indicator 2: Average number of Euranet Plus listeners per day⁶¹

Baseline (Oct. 2013)	Milestone (2015)	Current situation	Target (2016)
20 million ⁶²	20 million	20,4 million	25 million ⁶³

Main outputs in 2015			
Description	Indicator	Current situation	Target (2014)
Programmes on EU affairs	Number of broadcast minutes per year	58 615	60 000
Euronews in Arabic, Greek and Hungarian	Hours	24/24	24/24

The downward trend is explained by the general and progressive shifts of the audiences from TV to web and portable formats, and also taking into account the changing landscape of information channels in the TV landscape.

3. HORIZONTAL ACTIVITIES- policy strategy and coordination

⁵⁸ Euronews is an independent body partly funded by the European Commission. Therefore, this indicator does not reflect only DG COMM contribution but Euronews activity.

⁵⁹ Source: TV Eureka by Telmar-Peaktime quoted in Euronews reports.

⁶⁰ The target is lower than the baseline figure due to the facts that there is an evolution of the audience from TV to WEB view and also taking into account the number of the information channel in the same field.

⁶¹ Euranet Plus is a radio network funded by the European Commission, abiding by a Charter of editorial independence.

⁶² As stated by Euranet Plus in its latest report (Sep-Oct. 2013).

⁶³ Objective presented to DG COMM in the offer following the call for tender.

Specific objective 1: To achieve a global environment where fair and transparent regulations exist for telecommunications and information and communication technology (ICT) companies can compete on a level playing field. To promote the EU position on Internet governance globally along with the COMPACT principles, as well as manage DotEU enabling the ccTLD to grow further

Result indicator 1: GIPO number of meetings to develop the platform

Baseline	Current situation	Target
End 2015 (baseline set at 2Q 2015)	2	2

Result Indicator 2: EU export of ICT products (computers, electronics and telecommunications)

Source of data: EUROSTAT

Baseline	Current situation	Target
74.114 MEUR	71.872 MEUR	80.000 MEUR (end 2015)

Specific objective 2: Prepare ambitious legislative steps towards a connected Digital Single Market based on a clear assessment of the main obstacles still to be removed through EU action

Result indicator 1: DESI – Digital Economy and Society Index

Source: DG CONNECT

Baseline	Current situation	Target
EU28 score: 0,445 on a scale 0 to 1 (DESI 2014) Aggregate EU score was revised, it is now: 2014: 0.46 2015: 0.50 2016: 0.52	Number of EU countries above 0.5: 2014: 10 2015: 14	Improvement of all Member States DESI (2015) Number of EU countries above 0.5: 2016: 17

Main outputs in 2015:

Description	Indicator	Current situation	Target
Strategy Document	Adoption by College	The Digital Single Market strategy, was adopted on the 6 May 2015, It	April

		includes 16 initiatives to be delivered by the end of 2016	
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Specific objective 3: Coordinating and carrying out evaluation activities relevant to the DG's objectives and making proposals for strategic orientations of the DG's evaluation policy

Result Indicator 1: Number of National Reform Programmes in the European Semester including a part on ICT-related policies

Source: DAE scoreboard

Baseline	Current situation	Target
17 National Reform Programmes (2013)	24 National Reform Programmes. However it must be noted that all 28 Member States do have digital strategies in place. DG Connect therefore considers that the target has been reached	28 (2014 - 2015)

Result Indicator 2: Number of country-specific recommendations on ICT in the European Semester

Source: DAE scoreboard

Baseline	Current situation	Target
5 country-specific recommendations on ICT in the European Semester (2013)	No country-specific recommendations on ICT in the European Semester were established in 2015. The Juncker Commission in 2015 was aiming at adopting a more streamlined approach, translating into considerably fewer country specific recommendations focused on a selected number of key challenges for each Member State. Our proposed recommendations on ICT have been impacted by this new approach.	10 country-specific recommendations on ICT in the European Semester (2014 - 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Monitoring of countries	Number of countries monitored in the European Semester	19	10
Going Local exercises	Number of Going Local exercises addressing ICT and jobs	19	10

Specific objective 4: Coordination of standardisation activities in DG CONNECT

Result indicator 1: Number of identified technical specifications (TS) that can be used in public procurement

Baseline	Current situation	Target
Baseline year 2013: 0 TS 2014: 77 TS	27 identified TS in 2015	At least 4 TS per year

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Multi-Stakeholder Platform (MSP) to identify technical specifications to be used in public procurement	Number of MSP meetings per year	27 (2015)	3

Specific objective 5: Horizon 2020 coordination and work programmes

Result indicator 1: Percentage of budget allocated to ICT R&I in the Horizon 2020 Work Programme 2016-17⁶⁴		
Source: CORDA		
Baseline	Current situation	Target
Average WP 2014/15: 17,7	Average WP 2016/17: 17,2%	Minimum of 17,5%

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Widespread information dissemination to the proposers through the organisation of events	Participants to the high-level event "ICT 2015" according to whom the event met their objectives	In most cases, most of the respondents confirmed that the objectives were met. Moreover, 96% of respondents said they would attend another ICT event.	At least 80% of respondents to the survey circulated after the event give a positive response
Efficient coordination with relevant internal stakeholders for the preparation of the Horizon 2020 Work Programmes and their implementation	Adoption of the Horizon 2020 Work Programme 2016-17	Horizon 2020 work programme for 2016-2017 adopted on 13/10/2016	On-time adoption of the Horizon 2020 Work Programme 2016-17 (3Q 2015)
Implementation of International Cooperation Activities	Successful completion of the evaluation of topic 39 "International Partnership Building in low and middle income countries" of the Horizon 2020 ICT call 2015	ICT-39 Topic Evaluation report submitted on time	On time submission of the topic report

⁶⁴ Although an indicator has been put in place to monitor ICT in Horizon 2020 (the so called "Digital Agenda indicator"), reliable data has not been made available yet. For this reason the reported data corresponds to the operational budget allocated to DG CONNECT. In addition, for the WP 2014-2015, also the budget of Societal challenges 3, 4, 5 cross-subdelegated to DG CONNECT by other DGs was taken into account. For the WP 2016-17, in absence of sub-delegation, shares equivalent to the sub-delegations decided at the beginning of Horizon 2020 were applied to the budget (5% of SC 3 budget lines; 6% of SC 4 budget lines; 3,5% of SC 5 budget lines). EFTA contribution is not included.

Specific objective 6: Coordination of Connected Europe Facility related Work Programme

Result indicator 1: Number of EU countries submitting proposals: 27 EU countries and the 2 EFTA countries associated to CEF have applicants to the calls CEF-TC-2014-3 (eID) and CEF-TC-2015-1 (eDelivery; Public Open Data; Safer Internet)

Source: Agencies/EC Services

Baseline	Current situation	Target
No proposals (2013)	Proposals from 96% of EU countries	Proposals from 80% of EU countries

Main outputs in 2015:

Description	Indicator	Current situation	Target
Efficient coordination with relevant internal stakeholders for the preparation of the CEF Telecom Services Work Programme and its implementation	Adoption of CEF Telecom Work Programme for 2016	The current planning will allow execution as planned.	On-time adoption of the CEF Telecom Work Programme for 2016
Realization of pan-European Public Digital Service Infrastructures	Number of EU countries submitting proposals	Proposals from 96% of EU countries	Proposals from 80% of EU countries

Specific objective 7: To ensure that the Directorate General's planning follows political guidelines, EU strategic objectives, with realistic timelines for delivery thereby preventing delays

Result indicator 1: Number of planned DG CONNECT CWP initiatives delivered in a year compared to the number of planned DG CONNECT CWP initiatives for that year

Baseline	Current situation	Target
66,66% (2013)	100%	100% (31/12/2014)

Main outputs in 2015:

Description	Indicator	Current	Target
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		situation	
Commission Work Programme (CWP)	CONNECT's initiatives and their respective roadmaps are prepared by the Secretary General deadline	All CWP initiatives have been launched (namely DSM and copyright)	100%

Specific objective 8: To implement and monitor the external communication strategy in support of the Digital Single Market

Result indicator: People reached via all online communication channels

Baseline	Current situation	Target
26.500 (twitter followers)	54.000	28.000
155.000 subscribers to newsletters	194.000	190.000

Main outputs in 2015:

Description	Indicator	Current situation	Target
Communication strategy	Production of media and online content (newsroom items, the new digital bytes, press releases, blogs, update of web pages, LTTs, Media queries, Memos, Chapeaux, event-in-the-box requests)	At end of 2015: 11612 Numbers dropped due to new way of communicating in new Commission and new rules of SPP.	12.000

Specific objective 9: To ensure the Directorate General's processes are based on free knowledge sharing and strengthen the collaboration and communication culture within the DG, notably through the usage of the social-media like intranet platforms, CONNECTED

Main outputs in 2015:

Description	Indicator	Current situation	Target
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Support to cross cutting initiatives in DG CONNECT	Number of proposed initiatives that are supported and implemented at DG CONNECT level	5 initiatives supported: <ul style="list-style-type: none"> • DSM • ISG on Cybersecurity • ISG on Public Sector Modernisation • Big data for policymaking Better regulation/ "Internet Readiness" support within and outside the DG	3 (out of 7)
A useful interactive knowledge-sharing platform (CONNECTED)	Staff activity levels on the CONNECTED platform	Average in 2015: 60% Peak in 2015: 71%	70%

Average DG CONNECT activity levels on the platform in 2015 were at the same level as in 2014, thus stable over time.

The ambitious target of 70% was not met as a result of (a) fewer senior management posts and interactions on the platform (b) some uncertainty over the revision of Standard Operating Procedures involving CONNECTED.

At the same time overall non-DG CONNECT participation level increased significantly on the platform, reaching a peak of 4230 participating users in November 2015, demonstrating the enormous take-up of the platform outside DG CONNECT.

Specific objective 10: To establish and maintain dialogue and cooperation channels with the other institutions, the Member States and other inter-institutional parties so that progress of legislative proposals and non-legislative acts put forward by DG CONNECT is smooth and efficient through the institutional system and beyond

Result indicator 1: No legislative files in conciliation procedure

Source: DG CONNECT

Baseline	Current situation	Target
0 (2013)	0 (31/12/2015)	0 (31/12/2015)

Specific objective 11: Efficient involvement, assessment and response to input from all non-institutional stakeholders whose views and experience feed our activities. Multi-stakeholders

initiatives such as ICT and Woman, Digital Champions, Going Local, Coding Week

Result indicator 1: Compliance with gender balance and transparency requirements in expert groups

Baseline	Current situation	Target
	28 expert groups gender balance	Number of DG CONNECT expert groups, in which the Commission appoints members, where the gender balance is achieved (at least 40% of minority gender) and full compliance with Conflict of Interest requirements (2014)

Main outputs in 2015:

Description	Indicator	Current situation	Target
Increase of stakeholders	10% increase in amount of engaged stakeholders	On 11 January 2016, our database contained 123210 contacts (including EC staff who, by design, are as considered as contacts)	+10%

We overall reach the objective where we oversee the selection of representatives. In particular, the CONNECT Advisory Forum has been renewed in 2015 with a gender balance requirement in mind. Some expert groups are still below the target, but these are the ones where we don't oversee the selection, such as the expert groups where we invite a function (all the people occupying a given function in MS ministries).

Specific objective 12: Further developing our capacity to engage with stakeholders, including allowing to efficiently share information about stakeholder interactions across the organisation

Result indicator 1: Increase of participation of SMEs, civil society and individuals		
Baseline	Current situation	Target
DG CONNECT has a tool in development and testing phase	The tool is operational and used by 200 colleagues.	10% increase of involvement in our activities of SMEs, civil society, individuals across DG CONNECT (mid 2015)

Main outputs in 2015:			
Description	Indicator	Current situation	Target
Stakeholder Management Tool	Test users activity on the SRM platform	Tool under testing and development phase to interface other services	Tool becomes part of the natural users' IT toolbox
The tool is under development and testing phase to interface other tools and allow easy import/export of data.			

Specific objective 13: To coordinate the operational implementation of programmes managed by DG CONNECT and to support grant management

Main outputs in 2015:			
Description	Indicator	Current situation	Target
100% of grants signed on time	Time to grant	96.5% of grants were signed on time	100% of grants signed within 8 months (245 days)