



2016

DIRECTORATE
GENERAL
INFORMATICS

ANNUAL ACTIVITY REPORT

DIGIT

Informatics

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THE DG IN BRIEF

The Directorate General for Informatics (DIGIT) is a horizontal service of the Commission. Based in Luxembourg and Brussels, it employs around 500 full time staff and about 1445 external contractors and managed a budget¹ of 134,4 M€ in 2016 to provide IT and telecommunication equipment and solutions, information systems and infrastructure services for over 33,000 staff in the Commission. Furthermore, DIGIT runs major IT procurement procedures and almost all EU Institutions, Agencies and bodies (64 EUIs in total) have increasingly come to rely on the Commission for their procurement needs in the area of IT and thus regularly use DIGIT framework contracts.

DIGIT's mission is to deliver digital services to enable EU policies and to support the Commission's internal administration. With this goal in mind, DIGIT as trusted partner has the responsibility to:

- Provide the Commission, and whenever appropriate other European Institutions and bodies, with high quality and innovative:
 - Workplace solutions: creating new ways of working and collaboration for staff;
 - Business solutions: delivering information systems supporting rationalised business processes within the framework of the corporate IT Governance strategy;
 - Infrastructure solutions: providing reliable, cost-effective and secure infrastructure and services;
 - Effective solutions: aligning IT investments with business priorities, facilitating relationships with our strategic partners, balancing risk with business value for the Institution.
- Support the modernisation of public administrations by promoting and facilitating interoperability so that European public administrations can work seamlessly together and with businesses and citizens across boundaries.

DIGIT's vision – Transforming the Commission through IT – is to take on and drive forward the digital leadership role within the Commission. DIGIT must develop and lead the digital transformation of the Institution so that it can deliver EU policy better, more efficiently and more productively, fully seizing the opportunities offered by new technologies.

The key stakeholders of DIGIT are essentially internal to the Commission: end users for workplace solutions; business owners of information systems for business solutions; Information Resources Managers (IRMs) of the Commission services for infrastructure solutions in line with the corporate governance systems for IT and information security. At the same time **DIGIT provides interoperability solutions to external stakeholders**, such as the Member States and other EU institutions, **through the implementation of the ISA² programme²**. Moreover, as a centre of excellence for IT procurement, DIGIT provides procurement services to up to 60 entities (EU institutions, agencies etc.).

¹ Budget Heading 5 allocated to DIGIT

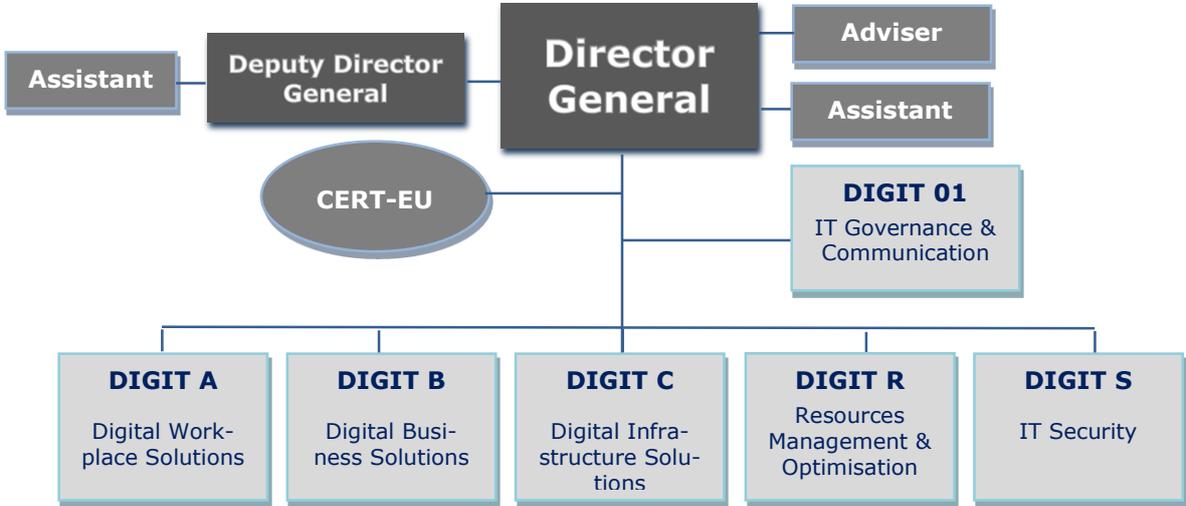
² [Decision \(EU\) 2015/2240 of the European Parliament and of the Council of 25 November 2015 establishing a programme on interoperability solutions and common frameworks for European public administrations, businesses and citizens \(ISA2 programme\) as a means for modernising the public sector](#)

DIGIT's activities are influenced by a complex and quickly moving environment, both internally and externally:

- Traditionally in the Commission the provision model of Information and Communication Technology (ICT) is of a distributed nature as all services play an important role in managing ICT. The year 2016 however triggered some changes to this approach, because with the adoption of the Communication on "Synergies and Efficiencies in the Commission - New Ways of Working"³ DIGIT received the mandate to lead the ICT domain. The challenge lies in finding the appropriate upfront investments and striking the right balance between areas where stronger leadership is required – like core corporate services, architectural elements and building blocks – and those where some scope for local specificities and innovation needs to be preserved.
- The external landscape is marked by increasingly sophisticated technologies and fast-evolving trends, such as the rise of big data, the cloud, mobile devices and collaborative (net)working.

These changes, combined with resource constraints and rising security concerns, present major opportunities and challenges for DIGIT. To meet these challenges successfully and to reflect emerging priorities, **DIGIT's organisational structure** – which consisted of 4 Directorates, 1 horizontal unit and the Computer Emergency Response Team (CERT-EU)⁴ in 2015 – **was extended with a new IT Security Directorate as from January 2016. DIGIT's senior management team was reinforced over the year too** with the appointment of Gertrud Ingestad as Director General and Mario Campolargo as Deputy Director General. In 2016 two new Directors were nominated in DIGIT, followed by the appointment of a third Director on 31/1/2017, which leaves DIGIT with only one Director's post to be filled in 2017.

While the organigram below shows the structure along which DIGIT worked in 2016, it should be noted that **DIGIT will undergo a significant reorganisation in March 2017** in order to allow DIGIT to better focus on the implementation of the ICT projects aimed at increasing the efficiency of the Commission's administration.



³ SEC(2016) 170 final - 04/04/2016
⁴ CERT-EU is an inter-institutional body which is administratively attached to DIGIT but sets up and reports on its work plan separately under the governance of its inter-institutional steering committee.

EXECUTIVE SUMMARY

The Annual Activity Report is a management report of the Director-General of DG DIGIT to the College of Commissioners. Annual Activity Reports are the main instrument of management accountability within the Commission and constitute the basis on which the College takes political responsibility for the decisions it takes as well as for the coordinating, executive and management functions it exercises, as laid down in the Treaties⁵.

a) Key results and progress towards the achievement of general and specific objectives of the DG (executive summary of section 1)

In its Strategic Plan 2016-2020, DIGIT set five strategic priorities, which guided its work in 2016 with a view of moving ahead the Commission's digital transformation agenda:



The above strategic framework and DIGIT's 2016 Management Plan have already captured the main actions foreseen by the Synergies and Efficiencies Review (SER) in the ICT domain, as the underlying report was drafted in 2015 by a subgroup of Directors General led by DIGIT. With the adoption of the Communication on "Synergies and Efficiencies in the Commission - New Ways of Working"³ on 4 April 2016, DIGIT received a clear mandate from the political level to lead the change process regarding the ICT function. As ICT domain leader, DIGIT is working on the successful implementation of the SER ICT agenda.

⁵ Article 17(1) of the Treaty on European Union.

At the same time a substantial part of DIGIT's efforts remains dedicated to the "keep the lights on" activities which allow Commission staff (as well as, in certain cases, staff of other institutions and agencies) to make use of IT equipment and tools at any time.

1. Modernisation of public administration:

DIGIT's first priority is dedicated to the modernisation of public administration in a broad sense. Internally, it refers to **the modernisation and digitalisation of the Commission's core processes** (specific objective 1), which largely covers the digital transformation agenda of the SER, comprising three dimensions. Work on the first strand focussing on business processes advanced well. For example the Planning module of Decide platform – supporting the legislative lifecycle – went live in September. Regarding the other two dimensions of the digital transformation agenda, which are the common business architecture and digital enablers, 2016 targets are largely met.

DIGIT continued its efforts to support the Commission's IT governance by evaluating and monitoring the IT investments. The Next Europa political and information official EC websites were released as scheduled; the service level agreed with DG COMM was met. DIGIT actively supported the preparation and endorsement of the Communication on data, information and knowledge management⁶ and highly contributed to select and set-up the portfolio of initiatives for its implementation. DIGIT's work focused in particular on exploiting the potential of Commission data and information via data analytics, the use of big data in supporting informed decisions making in the context of the Data4Policy initiative, the initial steps towards the promotion of the development of a business intelligence culture.

Externally, DIGIT promotes **the modernisation of European public administrations through the provision of interoperability solutions** (specific objective 2) and Digital Single Market (DSM) building blocks. As to the latter, the European Interoperability Strategy (EIS) and the European Interoperability Framework (EIF) was revised in 2016 and the related Communication⁷ was adopted on 23 March 2017.

The work under the ISA² programme to provide interoperability solutions and under the Connecting Europe Facility (CEF) to offer building blocks and digital services to Member States and other European stakeholders progressed as planned. The migration from sTesta to the Testa-NG network is completed. All Euro-domain sites in Member States, Agencies and Institutions have been migrated during 2016.

2. Create the digital workplace of the future:

DIGIT's second priority is to create the digital workplace of the future by **providing a modern office automation environment** to its users (specific objective 3) and by **standardizing and centralizing the management of end-user IT equipment and support services** (specific objective 4). Both of these objectives cover actions of the SER ICT agenda.

DIGIT's efforts to build a modern office automation environment point towards creating the workplace of the future foreseen in the SER. Close cooperation is needed between the DGs involved in this work strand (HR, SG, DIGIT) to define together the

⁶ C(2016) 6626 of 18/10/2016

⁷ COM(2017) 134 of 23/03/2017



principles and concepts then test them before starting the actual implementation. DIGIT is responsible to build the digital workplace (DWP) meeting the business requirements. This explains why the Future Office Automation Environment (FOAE) strategy was reviewed in order to build a broader DWP approach, which duly takes into account and addresses the broader business context.

There is consent that the DWP of the future should be mobile and shall allow smooth collaboration between colleagues. In 2016 DIGIT made good progress on the projects enabling collaboration, unified communication and mobile solutions. The mobile apps strategy was elaborated as well.

The standardisation and centralisation of the Commission's ICT equipment advanced well in line with the milestones set in DIGIT's 2016 Management Plan (and in the SER ICT report).

3. Create the data centre of the future:

DIGIT's third priority entails the creation of the data centre of the future by **modernising the data centre operations** (specific objective 5) and by **consolidating data centres** (specific objective 6).

As to data centre (DC) operations, the key targets set for 2016 were met. The strategy for the evolution of the DC Infrastructure has been elaborated and endorsed by DIGIT's senior management. It builds on the parallel cloud computing experiment which has generated high interest. As intended, DIGIT's clients enjoy now higher degree of control over the provisioning processes due to the fact that an initial set of automated and orchestrated self-service workflows has been put in production.

Concerning the consolidation of DCs, both related deliverables advanced as planned:

- i) The consolidation of local DCs started with DG ESTAT. The next DGs identified for consolidation are DGs DEVCO, NEAR, TRADE, GROW and COMP.
- ii) Regarding the relocation of the JMO DC, the new corporate Data Centre in Luxembourg, Betzdorf, was successfully put in production and officially inaugurated in December 2016 with the presence of Luxembourgish Prime Minister, Vice Prime Minister and Commissioner Oettinger.

4. Better IT Security:

DIGIT's IT Security Directorate has been launched with effect from the start of 2016 with a corporate level mandate to improve the IT security of the whole Commission in close coordination with the Directorate for Security (DG HR) and under the Information Security Steering Board (ISSB), chaired by a Deputy Secretary General. Directorate S has also built good working relations with the CERT-EU and with other European Institutions to improve information sharing and coordination of responses to IT security threats and incidents.

Alongside inter-institutional and inter-service level collaboration, the cross-cutting nature of IT security requires that Directorate S works closely with the other DIGIT directorates. This internal coordination is ensured by DIGIT IT Security Board (DISB).

At the end of 2015 the DISB adopted 10 IT security priorities for 2016, composed of 42 projects and activities, which are carried out by different units in various DIGIT Directorates. These IT security projects and operations appeared – at a more aggregate level – in DIGIT's 2016 Management Plan grouped around three specific objectives on IT security. Consequently this annual activity report highlights the main – and non-confidential – results regarding **strengthened cyber resilience** (specific objective 7), **provision of IT security operations** (specific objective 8) and **better IT security decision making** (specific objective 9).

According to the detailed status report compiled in November 2016, 28 out of these 42 projects and activities were completed or achieved their 2016 objectives. Among the key deliverables are: the implementation of the Secure Housing Service including zone segregation and security monitoring; improvement of corporate assets/infrastructure security monitoring; elaboration of the secure development principles; recommendations and conclusions on corporate cryptography; definition and implementation of the corporate vulnerability management process; regular reporting on cyber-security incidents; setup of new secured premises and data room (EUFO building Luxembourg); revision of the decision on the security of the Commission's IT systems⁸ and the creation of a structured programme on cyber security awareness raising called 'Cyber Aware'.

14 projects were not executed in 2016 because of reprioritisation needs. The remaining and ongoing IT security projects/activities have been regrouped and introduced as priorities in the recently adopted IT Security strategy (14 November 2016), which is built around four pillars: IT Security processes; IT Security monitoring and response; Infrastructure security and IT Security governance and awareness. DIGIT will track the progress made on the implementation of the IT Security strategy and will report back to the ISSB on a regular basis in 2017.

IT security also forms part of the SER ICT agenda with actions aiming at providing better IT security services and increasing the effectiveness of the LISO function, which aspects were also closely followed up by DIGIT in 2016.

5. Optimisation of DIGIT's delivery:

As a fifth priority, DIGIT is committed to optimise its own delivery **through increasing its customer focus** (specific objective 10) and **managing better its resources** (specific objective 11). Among the key achievements in 2016 the set-up of a Service Request Portal (My IT Support), the delivery of the business process reengineering report on DIGIT contractual and financial management or the introduction of a charge-back mechanism to compensate DIGIT for the services it provides to the other Institutions in the field of IT procurement could be mentioned. Moreover the cultural change which lies with increasing DIGIT's customer focus received the management's support.

To sum up, in 2016 DIGIT put the emphasis on delivery with a view of seeking ways for simplification, standardisation and stronger customer-orientation while investing in IT security.

⁸ Commission Decision (EU, Euratom) 2017/46 of 10 January 2017 on the security of communication and information systems in the European Commission

b) Key Performance Indicators (5 KPIs)

Result indicator	Trend	Milestone (2017)	Latest known results
<p>KPI-1 The digital transformation composite index</p> <p>Priority: Modernisation of public administration</p> <p>Source: DIGIT</p>	😊	Value of the index between 10% and 20%.	<p>22%</p> <p><i>Computed based on sub-indicators focusing on business processes and reusable components.</i></p>
<p>KPI-2 Overall satisfaction level of the end users with the digital workplace solutions provided by DIGIT</p> <p>Priority: Create the digital workplace of the future</p> <p>Source: DIGIT satisfaction survey on IT workplace solutions 2016</p>	😊	Maintain end user satisfaction at least at the level of 80%.	<p>84% of the respondents agree or mostly agree with the statement "Overall, I am satisfied with the IT workplace solutions and support provided by DIGIT."</p> <p><i>3900 respondents from more than 40 client DGs, Agencies or Services</i></p>
<p>KPI-3 Consolidation level of data centres</p> <p>Priority: Create the Data centre of the future</p> <p>Source: DIGIT</p>	😊	<p>New corporate data centre in Betzdorf operational, old JMO data centre phased out.</p> <p>Consolidation of the other corporate data centres (Bech, Host) well on its way.</p> <p>The LDC of 5 DGs are integrated into the DIGIT Infrastructure.</p> <p>First case of local data centre fully consolidated (ESTAT).</p>	<p>The new corporate Data Centre in Luxembourg, Betzdorf is operational.</p> <p>Following signature of the first Consolidation Convention with DG ESTAT, the migration of ESTAT's Information Systems is ongoing and used as reference to define the migration methodology. Kick-off meetings have been held with the next 5 DGs identified for consolidation.</p>

Result indicator	Trend	Milestone (2017)	Latest known results
<p>KPI-4 Level of IT Security capability</p> <p>Priority: Better IT Security</p> <p>Source: DIGIT</p> <p>IT security capability levels are defined based on the scale of the ISO 15504 standard:</p> <p>5 Optimizing process 4 Predictable process 3 Established process 2 Managed process 1 Performed process 0 Incomplete process</p>	😊	<p>Achievement of level 1 in all processes identified as core and level 2 in 50% of IT security processes defined as critical.</p>	<p>The IT Security strategy setting the direction for IT security across the Commission has been adopted by ISSB on 14 November 2016. The IT Security strategy's covers 4 areas. Projects under these areas have been defined and progress will be regularly reported to ISSB.</p> <p>For the critical processes: In 2016 the vulnerability management process was defined and this is now managed (level 2). Asset management and system administration are performed (level 1), but not consistently across the Commission.</p>
<p>KPI-5 Availability of a management system allowing flexible allocation of resources to priorities</p> <p>Priority: Optimise DIGIT's delivery</p> <p>Source: DIGIT</p>	😊	<p>Further alignment of DIGIT's Work Programme and budget structure;</p> <p>Identification of priorities, resources needs and optimisation potentials embedded in the annual planning exercise.</p>	<p>The preparation of DIGIT's annual work programme has been further integrated with the budget programming with a view to optimise the allocation of available resources to identified priorities and detect potential gaps, and potential areas for optimisation.</p>

c) Key conclusions on financial management and internal control (executive summary of section 2.1)

In accordance with the governance statement of the European Commission, (the staff of) DG DIGIT 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 standards, 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 DIGIT has assessed the internal control systems during the reporting year and has concluded that the internal control standards are implemented and function as intended. Please refer to AAR section 2.1.3 for further details.

In addition, DG DIGIT 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 refer to Section 2.1 for further details.

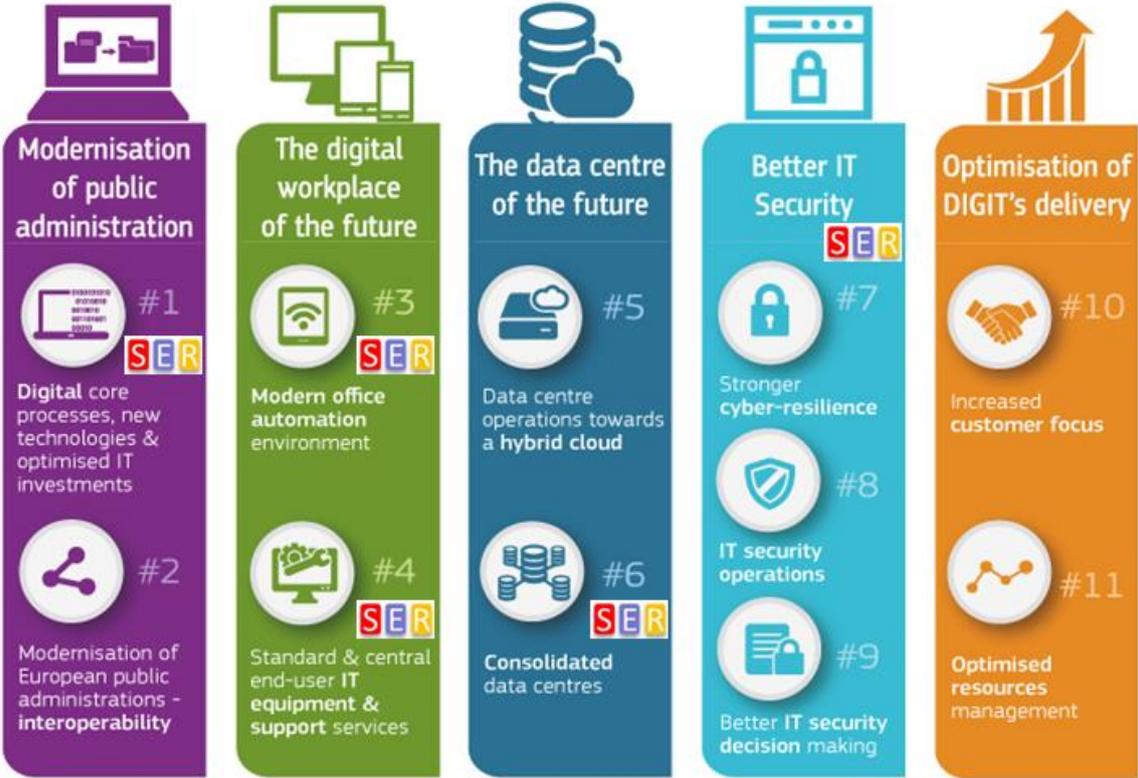
In conclusion, management has reasonable assurance that, overall, suitable controls are in place and working as intended; risks are being appropriately monitored and mitigated; and necessary improvements and reinforcements are being implemented. The Director General, in his capacity as Authorising Officer by Delegation has signed the Declaration of Assurance.

d) Information to the Commissioner

In the context of the regular meetings during the year between the DG and the Commissioner on management matters, also the main elements of this report and assurance declaration have been brought to the attention of Commissioner Oettinger, responsible for DIGIT until 31 December 2016 and Vice-President Ansip, responsible for DIGIT as of 1 January 2017.

KEY RESULTS AND PROGRESS TOWARDS THE ACHIEVEMENT OF GENERAL AND SPECIFIC OBJECTIVES OF THE DG

DIGIT set out its strategic framework for the period 2016-2020 in its Strategic Plan⁹. As shown below, the DG defined eleven specific objectives grouped around five priorities, which duly encompass the actions outlined by the Synergies and Efficiencies Review (SER)³ in the ICT domain:



The majority of DIGIT's efforts and ten out of its eleven specific objectives are linked to the general objective shared by the Commission's horizontal services: *"To help achieve the overall political objectives, the Commission will effectively and efficiently manage and safeguard assets and resources, and attract and develop the best talents" [DIGIT's General objective I]*. As DIGIT is essentially an internal service provider, its budget appropriations as well as the funds received from other DGs for IT services are directly linked to the provision, acquisition and development of the Commission's IT environment.

⁹ https://ec.europa.eu/info/strategy-documents_en

By promoting the modernisation of the European public sector through offering interoperability solutions for European public administrations, businesses and citizens (specific objective 2), DIGIT is also involved in the delivery of the policy objective "*Connected Digital Single Market*" [DIGIT's General objective II]. The core instrument to implement DIGIT's actions in this area is the ISA² Programme managed by the DG.

The following chapters present DIGIT's main achievements and possible challenges in 2016 according to these priorities and the related specific objectives. An exhaustive overview on the work delivered per 2016 Management Plan output can be found in Annex 12 'Performance Tables'.

1.1 Modernisation of public administrations

DIGIT's first priority is dedicated to the modernisation of public administrations both internally (specific objective 1) and externally (specific objective 2).

Specific objective 1: Drive modernisation and digitalisation of core processes, exploit new technologies and optimise IT investments

Most of the 2016 Management Plan outputs under this objective are linked to the SER digital transformation agenda - structured around three dimensions:

A) **The standardization of the corporate business processes** has started with the scaling up of corporate solutions:

- The roll-out of the eProcurement compliance package (e-Submission and e-Invoicing) continued at a best-effort pace for a limited number of DGs, because of budget constraints. This applies to the eProcurement Performance package too.
- The gap analysis for the remaining direct grants in the Commission and the Executive Agencies advanced as planned. The elaboration of the strategy for indirect grants however stalled in the absence of dedicated human resources.
- The proposed approach to achieve the one-stop-shop for all the external entities (SEDIA - Single Electronic Data Interchange Area) was accepted by the Research Family foreseeing SEDIA to become progressively operational as of January 2018.

The automation of the HR processes both within the Commission and in the inter-institutional context progressed as expected. With regards to Corporate Decision Making the Better Regulation Portal was deployed in June and the Planning module of Decide went live in September. Concerning Decide Decision, its target date for production was pushed to 2017.

**- eProcurement Compliance – 2016:
6 DGs were using e-Submission &
39 DGs were using e-Invoicing at
least for DIGIT contracts.**

**- DECIDE Planning in production
since September 2016**

18 reusable components available in the IT Assets Catalogue

B) Essential elements of the Common Enterprise Architecture are in deployment including the registry of reusable services and components necessary to build complete solutions. Efforts have been also done to align the Enterprise Architecture with the European Interoperability Reference Architecture.

C) The roll out of digital enablers is ongoing:

- **eSignature:** With the entry in application of the provisions on trust services under the eIDAS regulation (Regulation (EU) N°910/2014) on the 1st of July 2016, the eSignature service (ESSI) is ready to issue Seals instead of legal persons eSignatures. Discussions are ongoing with the Secretariat General for the replacement of "blue ink" signature in certain corporate processes.
- **ePolicy:** Following the analysis of the Commission's policy making cycle, the domain of data analytics proved to be the most promising area for introducing new digital solutions. Collaboration with the Data4Policy group of DGs (DIGIT, CNECT, ESTAT, OP, JRC) started in Q3 2016 in line with the rolling plan annexed to the Communication on Data, Information and Knowledge Management at the European Commission⁶.

With a view to optimize the Commission's IT investments, DIGIT prepared and followed up the IT Board meetings in good quality. The Next Europa website has been delivered without major issues and the integration of thematic portals – like the Better Regulation portal or the web-application for the European Solidarity Corps – is on schedule.

Average monthly availability of the Next Europa service higher than 99.9%

Through the above-presented actions, like the automation of core processes or the optimization of IT investments, DIGIT actively contributed to the efficient management of the Commission's assets (general objective I).

Specific objective 2: Promote modernisation of European public administrations through the provision of interoperability solutions

One of the ten priorities of the Juncker Commission is the creation of the Connected Digital Single Market (DSM). DIGIT contributes to the achievement of this general objective by providing interoperability solutions, which render the digital services of the European public administrations more efficient – not only within their own departments but also towards businesses and citizens. These interoperability solutions are financed through **the ISA² programme** managed by DIGIT. The 2016 ISA² Work Programme was adopted as planned and the preparation of the 2017 Work Programme is on schedule. The detailed overview of the ISA² actions is available on the dedicated Europa site¹⁰, while the box below illustrates the EU added value of this programme through a concrete example.

¹⁰ <http://ec.europa.eu/isa2>

EU ADDED VALUE OF THE ISA² PROGRAMME

European Single Procurement Document (ESPD) Service: ISA² has financed the establishment of the ESPD service (<https://ec.europa.eu/tools/espd>) which allows businesses to declare their financial status and suitability for public procurements. The service is one of the highest used among those provided by the Commission, as it reaches more than 4.000 unique users on a daily basis. The source code of the IT system supporting the service has been reused by the Netherlands for their TenderNed platform.

FINAL EVALUATION OF THE ISA PROGRAMME

The Commission adopted the report on the final evaluation of the ISA programme¹¹ in September 2016, which demonstrated an important added value for the Union as the programme established and operated interoperable solutions to ensure a coherent and holistic interoperability landscape and support the smooth interaction between European public administrations across borders or sectors in Europe. The final evaluation found that the ISA programme has been effective in achieving synergies between the programme and other EU initiatives and delivering operational solutions facilitating effective collaboration between European public administrations. It demonstrated that the implementation of Union policies and legislation relying on interoperability, and the ICT implication of such legislation would have been difficult to achieve without a central point of European Union intervention, by including the assessment of ICT implications of new EU legislation in the Commission Better Regulation policy.

It was also observed that there is a need to focus more on improving the reuse of ISA solutions and addressing new evolving needs. In addition, there is a need to build on the coordination of initiatives at EU level, in particular among DGs, in the framework of the 'Inter-service Group on Public Administration Quality and Innovation' (IGPA), and between Member States and the Commission to ensure greater coherence with other EU and national initiatives and coordination with stakeholders.

ISA² addresses the above by introducing strict selection and prioritisation criteria in the legal basis to ensure that proposals serve well the programme's objectives and are of value that can make them more reusable. ISA² has established a good link with the European Semester exercise as well with the structural funds, trying to identify gaps in the national programmes and propose solutions to fill in these gaps. The latter is a core delivery to the IGPA group. Finally, ISA² works closely with the CEF ensuring that solutions are brought to the maturity level required to be undertaken by the CEF and contributes enormously to the eGovernment action plan 2016-2020.

¹¹ COM(2016) 550 of 1/9/2016

Regarding **DIGIT's activities linked to the DSM strategy**¹² and to promoting interoperability in general, work on the revision of the European Interoperability Framework was concluded in December 2016 and the final adoption of this Communication⁷ took place on 23 March 2017.

177 entries in the ICT register of Roadmaps by November 2016

DIGIT made progress to ensure the systematic ICT Impact Assessment of the new legal initiatives of the Commission by setting up an ICT register of roadmaps¹³ and helping some DGs to assess the ICT impact of their proposals.

Projects like the European Investment Project Portal, BRIS (Business Registers Interconnection System) and IMI (Internal Market Information system) met their 2016 targets. The Single Web Portal (CEF platform) has been launched in production and the other CEF deliverables also progressed as scheduled.

The migration from sTesta to the Testa-NG network is completed. All Euro-domain sites in Member States, Agencies and Institutions have been migrated.

1.2 Create the digital workplace of the future

DIGIT's second priority is to create the digital workplace of the future by providing a modern office automation environment to its users (specific objective 3) and by standardizing and centralizing the management of end-user IT equipment and support services (specific objective 4). Both of these objectives cover actions of the SER ICT agenda.

Specific objective 3: Provision of a modern office automation environment

The implementation of the Future Office Automation Environment (FOAE) strategy was identified as a key milestone towards the digital workplace of the future in DIGIT's 2016 Management Plan. In early 2016, during the revision and refinement of the FOAE and in the context of the broader 'Workplace of the future' thread of the SER, **a more global Digital Workplace Programme (DWP) approach emerged**. In spring 2016, the DWP concept was enriched with the inputs collected from the Commission's IRMs community and with the ideas harvested during the European Union Institutions technological study trip to the USA. These extensive reflections were synthesized in **the Digital Workplace Strategy** which was adopted by the senior management in October. By implementing this strategy DIGIT aims at providing staff with the right IT tools, platforms and services, enabling users to work and collaborate anywhere, anytime with a fit-for-purpose security and optimising their work experience and productivity over the coming years.

- Digital Workplace Strategy approved

- Digital workplace solutions: 84% user satisfaction

As a result of these conceptual changes, the FOAE-related outputs of the 2016 Management Plan have been integrated in the DWP strategy, in some cases by revising their target.

¹² COM(2015) 192 of 6/5/2015

¹³ A uniform way to refer to both 'Inception impact assessments' and 'Evaluation roadmaps'.

- 6697 BYOD and 5272 corporate devices in MDM (Statistics of 26/01/2017)

- Overall availability of the MyIntraComm service is 99.9%

Mobile (devices and apps, including softphone and videoconferencing facilities) **is one of the key pillars** of the DWP Strategy. In 2016 DIGIT maintained and improved the Mobile Device Management (MDM) platform which evolved to keep up with new releases of mobile operating systems, in the context of addressing new security vulnerabilities.

DIGIT progressed well with its projects enabling collaboration and unified communication in the Commission during the year. A major milestone was also reached end of June, for the Wi-Fi evolution, with the launch of the secured but password-less connectivity of commission laptops to the Corporate Wi-Fi.

In May DIGIT launched MyRemote, a new, secure remote access solution, which was greatly appreciated by the end users in the annual "IT Workplace solutions" user satisfaction survey held in the autumn.

By working on the Digital Workplace of the future, DIGIT expects to increase the efficiency of the existing staff and to possibly attract new talents to the Commission (general objective I).

Specific objective 4: Standardized and centralized management of end-user IT equipment and support services

The "Centralisation of IT Equipment" was part of the SER Communication of April 2016. This centralisation is based on three main elements. The first is a new IT equipment allocation policy, based on a revised user profiling, which was adopted by DIGIT Senior Management at the end of 2016. The second is the re-centralisation of the IT equipment Budget, insofar called "Allocation a priori", within DIGIT. This is effective since 1 January 2017. The third element is the adaptation of our organisation to take on board the functions and responsibilities to be re-centralised. This element will be effective with DIGIT's reorganisation in March 2017.

The forward planning of replacement of end-users' IT equipment has been implemented among all DGs in Brussels since July 2016 resulting in quicker stock rotation and better monitored levels of stocks in the central IT warehouse in Brussels. Concerning the IT warehouse in Luxembourg, an interim solution was found until the availability of the new central premises in 2017.

The test phase of the "Move users without moving IT" project proved to be successful in the volunteering DGs in 2016. Thus DIGIT will design and implement this approach as a baseline policy in all DGs in the future.

As shown by the illustration, actions linked to this specific objective point toward the efficient management of the Commission's assets (general objective I).

- **Centralised IT equipment: Level of stocks in the central IT warehouse in Brussels has decreased by 40%**

- **No move policy: 3.200 moves of IT devices were spared resulting in savings of 130k€ in 2016.**

1.3 Create the data centre of the future

DIGIT's third priority is the creation of the data centre of the future by modernising the data centre operations (specific objective 5) and by consolidating local data centres (specific objective 6) as mandated by the ABM and IT Steering Group in 2014 and the SER in 2016.

Specific objective 5: Modernised data centre operations towards a hybrid cloud

In 2016 DIGIT elaborated its strategy for the evolution of the Data Centre infrastructure, which was endorsed by the senior management and welcomed by the Information Resources Managers (IRMs) at the Digital Stakeholder Forum (DSF).

30 high-value cloud experiments launched in 2016

With the availability of the cloud contracts early 2016, the cloud experimentation phase took off, allowing DIGIT to draw the first conclusions in an Intermediate Report relying on the feedback of the participating DGs.

DIGIT advanced well with the delivery of the planned 2016 outputs in relation to data centre operations: the DGs now have access to an extended self-service orchestration platform and the new version of the client portal is also in full production bringing higher degree of control and transparency in the provisioning processes for DIGIT's clients. DIGIT also worked on a new "Infrastructure as a Service (IaaS)" offering targeting the developer community.

DIGIT's intention is to continuously improve the reliability, security, agility, cost-efficiency and transparency of DIGIT's ICT infrastructure service offering through the above-listed actions. These efforts can be seen as examples of managing the Commission's assets effectively and efficiently (general objective I).

Specific objective 6: Consolidated data centres

Following the signature of the first Consolidation Convention with DG ESTAT, the migration of ESTAT's Information Systems started in 2016. This first consolidation experience proves that the approach and methodology are sound.

The next DGs identified for consolidation are DEVCO, NEAR, TRADE, GROW and COMP

The new corporate Data Centre in Luxembourg, Betzdorf, was successfully put in production and officially inaugurated in December 2016 with the presence of the Luxembourgish Prime Minister, Vice Prime Minister and Commissioner Oettinger. The new data centre will enable further progress on consolidation as it solves the lack of space issue in the corporate data centres.

1.4 Better IT Security

To effectively and efficiently safeguard its assets (general objective I), the Commission needs to better address the challenges and risks related to IT security. DIGIT is a key player in this overarching, horizontal domain and defined three specific objectives for 2016-2020.

Specific objective 7: Strengthened cyber resilience

This specific objective emphasises prevention and focuses on improving the base line IT Security of corporate infrastructures, services and solutions. To a certain degree each of the associated five work strands (see output 7-1), forming part of the Work Programmes of various DIGIT Directorates, were affected by human resource and budget constraints in 2016. Consequently the targets have only been partially met for 'secure system administration', 'network security and zoning' and 'secure development'. As mitigating measures the scope of these projects has been further defined and they have been re-programmed to the 2017-18 timescale under the IT security strategy.

Recommendations and conclusions shared with EU institutions on electronic encrypted communication

On the positive side, a major milestone has been reached with the integration of two production systems in the new Secure Hosting Service (SHS): the Tobacco Portal of DG SANTE and the Procurement Working Group Portal of the European External Action Service (EEAS).

Specific objective 8: Provision of IT security operations

In order to secure and protect the IT assets and resources provided by DIGIT for the entire Commission, this specific objective includes two main action lines: vulnerability and asset management on the one side and detection, monitoring and incident response on the other side. Regarding the former, DIGIT defined, tested and validated the corporate vulnerability management process in 2016. As to the latter, cyber-security incidents were regularly brought to the attention of the senior management and the IRMs at the DSF. Moreover DIGIT improved the maturity of its 'security monitoring' and 'information security incident management' services.

Future vulnerability management tool pre-selected

Specific objective 9: Better IT security decision making

This specific objective consists of making sure that the Information Security Governance structure delivers tangible and measurable improvements in IT security measured by corporate level compliance with the IT security rules. In this context DIGIT coordinated the revision of the decision on the security of the Commission's information and communication systems¹⁴, which led to the adoption of the new decision⁸ in January 2017. In 2016 the 2-year IT security strategy for the Commission was also defined and adopted, similarly to the structured programme on cyber security awareness raising called 'Cyber Aware'.

Cyber Aware actions 2016:

- cyber-security portal
- 6 end-user sessions
- 5 lunch talks
- phishing exercise, etc.

¹⁴ C(2006) 3602 of 16/08/2006

1.5 Optimisation of DIGIT's delivery

To be a trusted partner and a credible change agent in the digital transformation described so far, DIGIT committed itself, as a fifth priority, to optimise its own delivery through increasing its customer focus (specific objective 10) and managing better its resources (specific objective 11).

Specific objective 10: Increased customer focus

In order to increase its customer focus, DIGIT set up a Customer Orientation Strategy and Roadmap in 2015 to be implemented and refined over the next 2 years. The strategy paper identified five priorities to transform DIGIT in a trusted business partner: Strategy & Priorities, Listening & Building Relationship, Service Offering, Process & Organisation and Communication. The related Customer Orientation Roadmap (COR) defined 15 tracks linked to these priorities with key deliverables like the optimisation of processes to deliver end-to-end services and to continuously update DIGIT's service offer, the improvement of the communication to DIGIT's customers or the development of adequate tools to support DIGIT's customer management activities.

The implementation of this roadmap had several tangible results in 2016. Most importantly, DIGIT's senior management has validated the suggestion to create a central CRM team. This organisational change will be part of DIGIT re-organisation in 2017 and will allow DIGIT to present a consistent and homogeneous face to IT professionals.

Furthermore DIGIT replaced SMT-ES with My IT Support to allow the staff to manage more intuitively their IT requests and incidents. The DG reached out to the IT Community as well, by organising the first Ops4Dev event.

23.500 IT requests submitted in My IT Support in the first 6 months after its launch

Specific objective 11: Optimised resources management

Building on the initiatives that have been launched over the last years, DIGIT pursued its efforts to ensure that it works efficiently, focusing on the right priorities with an optimised allocation of resources in 2016. The actions foreseen under this objective – like the sustainable organisation of the procurement services provided by DIGIT to the other EU institutions; streamlined financial processes; prioritisation of activities to assess and improve the adequacy of resources allocation or the identification of optimisation opportunities through the implementation of business process reengineering activities – met their target or are on track.

ORGANISATIONAL MANAGEMENT AND INTERNAL CONTROL

This section answers to the question how the achievements described in the previous section were delivered by the DG. This section is divided in two subsections.

The first subsection reports the control results and all other relevant information that support management's assurance on the achievement of the financial management and internal control objectives. It includes any additional information necessary to establish that the available evidence is reliable, complete and comprehensive; appropriately covering all activities, programmes and management modes relevant for the DG.

The second subsection deals with the other components of organisational management: human resources, better regulation principles, information management and external communication.

2.1 Financial 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 by AOSDs;
- ✓ the reports from Authorising Officers in other DGs managing budget appropriations in cross-delegation;
- ✓ the contribution of the Internal Control Coordinator, including the results of internal control monitoring at the DG level and risk assessment exercise;
- ✓ the reports of the ex-post supervision or audit;
- ✓ the opinion of the internal auditor on the state of control as well as the observations and recommendations reported by the Internal Audit Service (IAS);
- ✓ the observations and the recommendations reported by the European Court of Auditors (ECA).

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 DIGIT.

This section reports the control results and other relevant elements that support management's assurance. It is structured into (2.1.1) Control results, (2.1.2) Audit observations and recommendations, (2.1.3) Effectiveness of the internal control system, and resulting in (2.1.4) Conclusions as regards assurance.

2.1.1 Control results

This section reports and assesses the elements identified by management that support the assurance on the achievement of the internal control objectives¹⁵. 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.

DG DIGIT's administrative and operational credits as well as the administrative and operational credits transferred to DG DIGIT by other Commission DGs and Services and other EU institutions¹⁶ are implemented under direct management, nearly all through procurements¹⁷. Payments made by DIGIT in 2016 amounted to 264.3 M€, of which 152.1 M€ on delegated credits and 112.2 on credits transferred from other DGs.

The table below provides a summary of credits managed¹⁸:

Row Labels	Delegated appropriations	Received Codelegation	Received Cross-delegation	Assigned Revenues	Grand Total
XX-Infrastructure	132.448.000	31.714.268		20.465.879	184.628.146
Global Envelope	7.305.681	14.371.141		6.521.189	28.198.012
ISA	25.520.846			2.296.624	27.817.471
Pilot	1.000.000				1.000.000
Others		32.728.523	4.763.779		37.492.302
Grand Total	166.274.528	78.813.932	4.763.779	29.283.692	279.135.931

Row Labels	Executed by DIGIT	Given Codelegation	Given Cross-delegation	Grand Total
XX-Infrastructure	183.482.014		1.146.132	184.628.146
Global Envelope	24.093.145	4.104.867		28.198.012
ISA	19.873.978	50.000	7.893.493	27.817.471
Pilot	1.000.000			1.000.000
Others	37.492.302			37.492.302
Grand Total	265.941.439	4.154.867	9.039.625	279.135.931

¹⁵ 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 (FR Art 32).

¹⁶ In addition to the IT baseline services funded from its own delegated budget appropriations, DG DIGIT provides Commission DGs/Services and other EC-bodies with IT services of various natures. These services are funded using different mechanisms (recovery orders, sub-cross and co-delegations).

¹⁷ With the exception of some credits of the global envelope (e.g. missions, etc.)

¹⁸ The table provides information on credits used (committed) and not credits paid.

Coverage of the Internal Control Objectives and their related main indicators

Control effectiveness as regards legality and regularity

DG DIGIT 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.

a) Procurement activities

The control objective is to ensure that the DG has reasonable assurance that the total amount of any financial operation authorised during the reporting year which would not be in conformity with the applicable contractual or regulatory provisions, does not exceed 2% of the budget of the ABB activity for the DG.

In order to reach this conclusion, DG DIGIT makes a qualitative analysis and review the register of exceptions, the internal control weaknesses as well as the results of the supervisory activities and ex post controls.

Register of exceptions and internal control weaknesses: During the reporting year there were 137¹⁹ recorded instances of control failure or deviation, of which 132 had an impact on the legality and regularity of the transactions. Apart from technical or procedural errors, these mostly concerned "*saisine a posteriori*". Most of them were 2016 budgeted expenditures and corrected during the same financial year, as a formal compliance issue which does not have a negative impact on the budget. All non-compliance events concern expenditures that were foreseen and budgeted. All invoices covered work done and therefore due.

Following the finding²⁰ of the Court of Auditors on annuality within the DAS 2015, an evaluation of the end of the years 2014 and 2015 transactions took place. The increase in the number of non-compliance events is mainly due to a strengthened follow up of the identification and registration of the exception/non-compliance events by the financial unit and the Internal Control Coordinator (ICC). These exception and non-compliance reports are yearly analysed and reassessed by the ICC resulting in the identification, reporting and further follow-up of the possible mitigating measures to be implemented. In addition, following the conduct, in 2016, of a BPR report on financial management in DG DIGIT, it has been decided to decentralise the function of authorising officer by sub-delegation to the Head of Units for part of the transactions, with a view to better align responsibilities with (information on) operations. This should be put in place as from 1st April 2017, in line with the ongoing reorganisation. Moreover, as a result of this BPR report, it has also been decided to set up "Centres of Expertise" in each Directorate to improve the quality of the contract management. Building on the re-organisation in place since 16th March 2017, this proposal will be put in place in 2017 - 2018. These actions will contribute to a better follow up of contract renewal, which is underlying most of the non-compliance events identified.

¹⁹ Where 20 originated from other DGs

²⁰ Legality & Regularity "other" - Non quantifiable - 0% error rate

As a result, in view of the mitigating actions put in place, and given that the identified exceptions and non-compliance events are of minor importance. They are mostly procedural and corrected during the year. The few non-compliance events concerning the previous year identified and corrected in 2016 no undue payment took place. The services were rendered and it concerned foreseen and budgeted expenditures (0.15% of the total 2016 payments). Therefore they do not impact the management assurance statement.

Ex-ante controls: All commitments are subject to an ex-ante control. For transactions above 50.000€, this control is performed by the Financial Verification Agent before being authorised by the Authorising Officer by sub delegation. For transactions below 50.000€, the control is performed by the Authorising Officer by sub delegation located in the central financial unit. All payments are centralised and as such verified by the Authorising Officer located in the central financial unit. None of these controls unveiled material errors with impact on compliance.

Cases of control overrides: In DG DIGIT no such cases did occurred in 2016 neither on Procurement (GAMA advisory body) neither on financial transactions.

Legal complaints and crosscutting issues: All pending legal challenges are closely monitored and potential subsequent risks are deemed to be under control.

Ex-post controls: The Internal Control Coordination team (ICC) controls an overall sample of commitments and payments orders. 23 financial operations (0.18% of a total representing 5.22% in value) were subject to a supervisory desk review after the signature of the contract. As ex ante financial control is very performant, none of these controls unveiled errors with impact on compliance, and exception or non-compliance event are registered when needed.

In conclusion, the analysis of the available control results, the assessment of the weaknesses identified and that of their relative impact on legality and regularity has not unveiled any significant weakness which could have a material impact as regards the legality and regularity of the financial operations and it is possible to conclude that the control objective as regards legality and regularity has been achieved.

b) Revenues (transferred to DIGIT by other Commission DGs and Services and other EU institutions)

Controls are in place (see annex 5) to ensure proper charge-back of services to other DGs, Services and EU institutions based on a regularly updated cost model, use of Service Level Agreements and Memorandum of Understanding, information on services and reporting, limiting the risk of error. The total revenue for Charge-back is 113 M€. This amount corresponds to 4.7 M€ cross-sub delegations received, 79 M€ of co-delegations and 29 M€ of assigned revenue of which 5 M€ carried-over from 2015. Assigned revenue actually cashed in 2016 was 26.6 M€.

The revenues of DG DIGIT which are coming from Charge-back towards the Commission and other European Institutions do not relate to recoveries of undue payments.

In conclusion, as a result of the above, it is possible to conclude that the control objective as regards legality and regularity has been achieved.

c) Budget implementation tasks entrusted to other DGs and entities

DG DIGIT grants cross-delegations for actions managed by other Commission services in the framework of the ISA program. In their report, the relevant AODs did not communicate any events, control results or issues which could have a material impact on assurance (Annex 11).

General conclusion on control effectiveness as regards legality and regularity

In conclusion, the analysis of the available control results, the assessment of the weaknesses identified and that of their relative impact on legality and regularity has not unveiled any significant weakness which could have a material impact as regards the legality and regularity of the financial operations and it is possible to conclude that the control objective as regards legality and regularity has been achieved.

Risk-types/ Activities	Procurement (e.g. <u>minor or major values</u>)	<u>Cross-delegations to other DGs (other AO-XDs)</u>	NEI, e.g. Revenues (from charge-back and implemented through procurement), Assets, OBS ((in)tangible or <u>financial assets & liabilities</u>)	Independent info from auditors (IAS, ECA) on assurance or on new/overdue critical recommendations available?	Any reservation?
Totals (coverage)	264.3 M€ ²¹	3.4 M€	34.5 M€ ²²	Y	No
ICO-related indicators available	RER est. 0% CEC = yes AFS = OK	RER est. 0% CEC = yes AFS = OK	Clean Mngt Decl. SAI = OK TFV = yes	No critical issue	

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.

For DG DIGIT, the estimated overall amount at risk at payment²³ for the 2016 payments made is nil (0€). This is the AOD's best, conservative estimation of the amount of *relevant expenditure* during the year (264.30 M€) not in conformity with the applicable contractual and regulatory provisions at the time the payment is made.

²¹ This amount represents the total of payments including cross-delegations, co-delegations and recoveries related to the charge back of services to other entities.

²² This figure results from 27.2 M€ recognised revenue as per Table 7 Annex 3 + 7.3 M€ Intangible Assets from Table 4 Annex 3.

²³ In order to calculate the weighted average error rate (AER) for the total *relevant expenditure* in the reporting year, the *detected*, estimated or other equivalent error rates have been used.

The conservatively estimated future corrections for those 2016 payments made are 0 €. This is the amount of errors that the DG conservatively estimates to identify and correct from controls that it will implement in successive years.

The difference between those two amounts leads to the estimated overall amount at risk at closure of 0 €.

Estimated overall amount at risk at closure

DG DIGIT	"pay-ments made" (FY; m€)	<i>minus new^a prefinancing [plus reten-tions made^b] (in FY; m€)</i>	<i>plus cleared^c prefinancing [minus reten-tions (partial-ly) re-leased^b and deduc-tions of ex-pendi-ture made by MS] (in FY; m€)</i>	= "rele-vant expendi-ture"^d (for the FY; m€)	Average Error Rate (<i>weighte d AER</i> ; %)	estim-at-ed over-all amount at risk at <i>payment</i> (FY; €)	Average Recover-ies and Correc-tions (<i>adjust-ed ARC</i> ; %)	estim-at-ed future correc-tions [and deduc-tions] (for FY; €)	esti-mated overall amount at risk at clo-sure^e (€)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Pro-gramme, Budget Line(s), or other relevant level	as per AAR annex 3, table 2	as per ABAC DWH BO report on prefinancing ^f	as per ABAC DWH BO report on prefinancing ^f	= (2) - (3) + (4)	Detected error rates, or equivalent ^g estimates	= (5) x (6)	<i>based on 7Y-avg historic ARC (as per ABAC DWH BO report on correc-tive ca-pacity)^f: (X,X%), but [to be] ad-justed^h to be the best but con-servative estimate for the current MFF</i>	= (5) x (8)	= (7) - (9)
Over-all, to-tal	264,3 M€	0	0	0	0	0	0	0	0

Cost-effectiveness and efficiency

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

The principle of efficiency concerns the best relationship between resources employed and results achieved. The principle of economy requires that the resources used by the institution in the pursuit of its activities shall be made available in due time, in appropriate quantity and quality and at the best price. This section outlines the indicators used to monitor the efficiency of the control systems, including an overall assessment of the costs and benefits of controls.

DIGIT has produced an estimation of the costs of the main control processes compared to the funds managed (see below). However, since a quantitative estimation of the volume of errors prevented and detected is not available, it is not possible to quantify the related benefits other than the amounts recovered as a result of these controls. In consequence, it is not possible to determine the cost-effectiveness of controls by comparing costs with benefits; it is necessary to consider the efficiency indicators retained. To do so, DIGIT has defined efficiency measures for the controls associated with the main core processes:

a) Procurement activities

For procurements²⁴, an estimated 1,888,460 € were invested in controlling 12 procurement procedures²⁵ for contracts with a total value of 770,287,070 €²⁶ for 2016. Thus 0.25 % of the total contract value was dedicated to control and each procurement procedure has an estimated cost of control of 157,372 €.

Compared to last year, this represents a small decrease (0.3% in 2015) of the proportion of total contract value dedicated to control coupled with an increase of the estimated cost of control per transaction (134,100 € in 2015).

Compared to the previous year, cost-efficiency indicators for procurement procedures follow a positive trend.

The total value of the procurements and the number of procedures are higher. The difficulties linked to the type and complexities of the contracts have to be taken into account. The procurement procedures are to a large extent a regulatory requirement which cannot be curtailed. DIGIT's procurements are serving all Commission DGs and Services and all EU Institutions and Bodies (regulatory agencies, joint undertakings). Considering the complexity of the procurement activities and the wide range of participants, the controls implemented are necessary and cannot be reduced as a significant proportion of the appropriations would be at risk in case they would not be in place (as outlined in Annex 5).

²⁴ Please note that these figures are not yet in line with annex 3 as there is a technical problem

²⁵ Including 1 procedure fully done by DG DIGIT but where DG HR is the Authorising Officer

²⁶ DG DIGIT 755,135,570€ + DG HR 15,151,500€

For financial circuits an estimated 3,566,800€ were invested in controlling 13,092 financial transactions²⁷ worth 568,585,900€. Thus 0.63% of the total amount of financial transactions executed was dedicated to control, compared to 0.88% in 2015. The estimated cost of control of each financial transaction is 272€, compared to 355€ in 2015.

Therefore, compared to the previous year, cost-efficiency indicators still follow a positive trend. The cost decreased while the number and amount of transactions covered increased.

For supervisory measures an estimated 3,300€ were invested in controlling 23 financial transactions (including the review of specific year-end transactions) worth 29,701,693€. The controlled transactions represent 0.18% of the total number of the transactions and 5.22% of the total values of all transactions.

The average cost compared to the value of transactions controlled represents 0.01% as in 2015. Each transaction or procedure checked ex post has an estimated cost of control of 143€ compared to 122€ in 2015.

Therefore we can conclude that, compared to the previous year, cost-efficiency indicators has slightly decreased. It is intended to analyse the related procedure in 2017.

b) Revenues (transferred to DIGIT by other Commission DGs and Services and other EU institutions)

An estimated 528,000€ were invested in controls related to the charge-back of services to other DGs, Services and EU institutions with a total value of 112,990,248€. Thus 0.5% of the total charged-back value was dedicated to control, compared to 0,4% in 2015.

Therefore we can conclude that, compared to the previous year, cost-efficiency indicators still follow a positive trend.

General conclusion on cost-effectiveness and efficiency

The benefits of control in non-financial terms cover: better value for money, deterrent effects, efficiency gains, system improvements and, as mentioned above, compliance with regulatory provisions.

To reach a conclusion as of the relative efficiency of the controls, it is necessary to analyse the evolution of the efficiency indicators over time and/or to compare them with relevant benchmarks.

The individual cost-efficiency indicators follow a positive trend, except for supervisory controls, which will be further analysed, but the total cost of controls compared to funds managed shows a positive trend.

²⁷ All commitments, payments and recovery orders of DG DIGIT

In addition, it is worth noting that the total costs of controls compared to the overall amounts of transactions controlled also follows a positive trend. This indicator is meaningful in the case of DG DIGIT as an important part of the cost of controls concerns procurement of framework contracts for all DGs and European Bodies, far above the funds directly managed by DG DIGIT.

2015						2016					
Total control cost (€)	Value (€)	Total value/cost of CTRL (€)	Total cost/funds controlled	Funds managed €	Total cost/Funds managed €	Total control cost (€)	Value (€)	Total value/cost of CTRL (€)	Total cost/funds controlled	Funds managed €	Total cost/Funds managed €
5,952,000	1,107,097,587	186	0.54%	171,097,376	3.48%	5,986,560	1,481,564,913	247	0.40%	264,327,550	2.26%

In addition, other efficiency indicators disclosed in annex 3 of the present report not only remain stable but still improve (the time to pay indicator is at 13.21 days in 2016, compared to 17,11 in 2015, while the percentage of payments made on time amounts to 98.5% against 97% in 2015). As a result, DIGIT positively concludes on the cost/efficiency of its related control procedures.

In line with the possibility foreseen in art 66.2 FR to differentiate the frequency and/or the intensity of the DG's controls by re-directing the control resources towards more stringent controls where needed while having leaner and less burdensome controls where appropriate, DIGIT has launched in 2016 the review of its control strategy with a view to improve its efficiency and effectiveness. Although initially foreseen for 2016, the finalisation of the revision was postponed to 2017 to take into account, on the one hand, the reorganisation of DIGIT to be implemented in 2017 and, on the other hand, the decentralisation of the authorising officer by sub delegation function in line with the results of DIGIT's BPR on financial management conducted in 2016.

As a result, DIGIT considers that the controls in place are cost-effective and have not identified results or issues that could have a material impact on assurance.

Fraud prevention and detection

DG DIGIT has developed and implemented its own anti-fraud strategy since end 2013, elaborated on the basis of the methodology provided by OLAF. It has been updated regularly and the last review was done end 2016.

This strategy will be revised in 2017 to take into account the impact of the new organisation if any.

As every year, a survey was launched in 2016 to evaluate the general awareness of fraud-related issues within the DG. An in-depth analysis of the replies received show the need for additional actions that were communicated (yearly as usual) to Senior Management, in particular the provision of more information and additional training on fraud issues within DIGIT.

Each year DG DIGIT assesses the risk of fraud in the context of its risk management exercise. The fraud risks are mitigated by the specific controls implemented (see for details Annex 5). Activities and operations that are at a higher risk of fraud are subject to more in-depth monitoring and control. During the reporting year, OLAF has not initiated any

case which concerns the activities of DIGIT.

DG DIGIT considers that its fraud prevention and detection strategy is working well. It will however define actions to continuously improve it. As for example, another workshop on "Ethics", as the one organised end 2015, is foreseen in 2017 so an "awareness raising" action for the staff.

Other control objectives: safeguarding of assets and information, reliability of reporting

- ✓ DIGIT is the management centre of the IT items installed in the premises of the Commission in Brussels, Luxembourg, Strasbourg and Dublin. In this capacity, DIGIT carries out several controls aiming at safeguarding the assets it purchases and manages on behalf of all the DGs and services of the Commission. Those controls include the physical check of all assets and non-assets at least every two years, itemised checks when writing off obsolete, lost or damaged goods, as well as on-going registration in ABAC Assets of all logistical movements (deliveries, moves, swaps, withdrawals, etc.) during the life cycle of the items. For information, DG DIGIT's assets amount 45,020,686€²⁸ as per end of 2016.
- ✓ DG BUDG closed all recommendations done during the verification of the DG DIGIT local system.
- ✓ In addition, controls are in place to ensure the safeguarding of information, such as for example procedures for granting and managing access rights, yearly control by ICC on financial systems access rights and requests of security clearance of contractors in some cases.

As a result of the above and of the work conducted by DIGIT to enhance a better IT security as documented in part 1 of the present document, under specific objectives 7, 8 and 9 and reflected under main KPI-4 "*Level of IT Security capability*" allow to conclude that the control objective as regards safeguarding of assets and information, reliability of reporting has been achieved.

2.1.2 Audit observations and recommendations

This section reports and assesses the observations, opinions and conclusions reported by auditors in their reports as well as the limited conclusion 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.

The DG is audited by both internal and external independent auditors: the Commission internal audit service (IAS) and the European Court of Auditors (ECA).

²⁸ As per Annex 3 Table 4

IAS

2016

During the period of reference, the IAS finalised two follow up audits, one on "Management of European Commission Authentication Service – ECAS" and the other on "External Staff Management in DG DIGIT". The multi-DG audit on "Management of intra-muros contractors" has also been finalised. IAS also launched end 2016 an audit on "Management of IT security" and the 2d follow up audit on "Management of the security of EU ETS IT System" in DG CLIMA and DG DIGIT.

The follow up **audit on the Management of European Commission Authentication Service – ECAS** closed nearly all recommendations. The two recommendations still open (one important and one very important) are on-going and should be finalised early 2017.

The follow up **audit on External Staff Management in DG DIGIT** also took place. Five recommendations have been closed including two of the 3 very important ones. The third one has been downgraded by the auditors. In total four recommendations are still open and all are classified as important. The remaining actions should be implemented during the first half of 2017.

In its final report on the multi-DG **audit on the Management of Intra-muros Contractors**, IAS issued 2 recommendations. The first one, rated very important includes 2 parts; one of corporate level (led by HR) requires the definition of a corporate framework for the use of intra muros contractors. The second part is addressed to DG DIGIT and requests to analyse the consequences of using intra muros and outline its future strategy. The second recommendation, also addressed to DG DIGIT is rated very important. It is focused on means to control the value for money in "Time and means" contracts.

IAS undertook the 2nd follow up **audit on Management of the security of EU ETS IT System** in DG CLIMA and DG DIGIT. All recommendations directly addressed to DG DIGIT were closed. Nevertheless DG DIGIT will continue to cooperate actively with DG CLIMA for the implementation of their recommendations.

Previous years

As regards the implementation of recommendations issued in previous years by the IAS, DG DIGIT successfully completed the implementation of a relatively large number of audit recommendations.

All recommendations related to the **audit on the Management and supervision of Contracts for the Outsourced IT Services** are implemented and will be subject to a follow-up audit in the beginning of 2017.

The final action plan for the 2015 **audit on Information Security Governance in the Commission** has been validated beginning 2016. The four very important recommendations were addressed to the Secretariat General in cooperation with DG HR/DS and DIGIT. One is already implemented and the others are progressing quite well. They should be implemented on schedule. IAS asked for particular attention to the need to ensure that the Information Security Steering Board has to function efficiently and effectively in its role as Chief Information Security Officer (CISO). This was taken into account as DG DIGIT is a member of the Informatics System Security Board that represents the CISO and is not chairing it.

The two important open recommendations concerning the Charge-Back Process in the Commission are progressing and the last actions should be implemented in 2017.

The 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.

The follow up of the recommendations is carefully done but specific attention is given to actions to be taken to improve IT and information security.

ECA

The Court of Auditors did not audit DIGIT in 2016.

Within the DAS 2015, DG DIGIT was concerned by one Preliminary Finding (PF 7644) pointing out an incompliance with the budgetary principle of annuality. It concerned a transaction that covered the maintenance of software. As a result DG DIGIT undertook a specific ex post evaluation of 2014/2015 for transactions of the same type (hard/software and their maintenance). This evaluation led to the drafting of an action plan being currently implemented.

As a result of the assessment of the risks underlying the auditors' observations together with the management measures taken in response the management of DG DIGIT believes that the recommendations issued do not raise any assurance implications and are being implemented as part of the on-going continuous efforts in terms of further improvements.

2.1.3 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 DIGIT 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 DIGIT has assessed the internal control systems during the reporting year and has concluded that the internal control standards are implemented and functioning as intended. The assessment relies on a number of monitoring measures and sources of information including a survey-based management self-assessment; reported instances of exceptions, non-compliance events and internal control weaknesses; relevant audit findings; and the risk assessment process.



In conclusion, the internal control standards are effectively implemented and functioning. In addition, DG DIGIT has taken measures to further improve the effectiveness of its internal control system in the area of IT security (ICS 12-Information and Communication) as:

- ✔ The new top management level Information Security Governance structure established at the end of 2015 provides a foundation for a prioritised and business driven development of an IT security capability.
- ✔ DIGIT's IT Security Directorate with two units (policy and operations) is a priority for (resource) investments to bring it to a stable and operational level. DIGIT supports this aim in order to increase the Commission's capability for detection, preventive and responsive measures. Improved prevention and detection infrastructures and tools have been acquired and further investments are on-going.
- ✔ IT security has been identified as a priority action area in DIGIT's Strategic and Management Plan to improve IT security of corporate systems and services.
- ✔ A review and update of the IT security rules took place²⁹; the priority will be to improve implementation of IT security controls in a way which meets critical risks and business priorities.
- ✔ A programme to raise cyber-awareness has been developed.

²⁹ Commission Decision (EU, Euratom) 2017/46 of 10 January 2017 on the security of communication and information systems in the European Commission

2.1.4 Conclusions as regards assurance

This section reviews the assessment of the elements reported above (in Sections 2.1.1, 2.1.2 and 2.1.3) and draws conclusions supporting the declaration of assurance and whether it should be qualified with reservations.

The information reported in Section 2.1 stems from the results of management and auditor monitoring contained in the reports listed. 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 comprehensive coverage of the budget delegated to the Director-General of DG DIGIT.

Reasonable assurance is the personal judgment of the AOD based on all information at his/her disposal. This information is structured around different pillars, composed of (1) the DG's assessment of its own activities for the management of its resources; (2) the assessment of the activities carried out by other entities to which the DG has entrusted budget implementation tasks; and (3) the assessment of the results of internal and external audits, including the implementation of audit recommendations.

No reservation is made by the AOD in this AAR.

In view of the control results and all other relevant information available, the AOD's best estimation of the risks relating to the legality and regularity for the expenditure authorised during the reporting year is 0%, which implies an amount at risk of below 0 €.

Taking into account the conclusions of the review of the elements supporting, it is possible to conclude that the internal controls systems implemented by DG DIGIT provide sufficient assurance to adequately manage the risks relating to the legality and regularity of the underlying transactions. Furthermore, it is also possible to conclude that the internal control systems provide sufficient assurance with regards to the achievement of the other internal control objectives.

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.

2.1.5 Declaration of Assurance

DECLARATION OF ASSURANCE

I, the undersigned,

Director-General of DG DIGIT

In my capacity as authorising officer by delegation

Declare that the information contained in this report gives a true and fair view³⁰.

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 conclusion of the Internal Auditor on the state of control.

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

Brussels, 31 March 2017

e-signed

Gertrud INGESTAD

³⁰ True and fair in this context means a reliable, complete and correct view on the state of affairs in the DG/Executive Agency.

2.2 Other organisational management dimensions

As already highlighted in section 1 of this report, DIGIT is committed to optimise the management of its resources (see specific objective 11). Business Process Reengineering is one of the various activities of the DG, which aims at the more efficient use of the available resources by improving the design and effectiveness of the existing operations (see the example in the box below and output 11-1 in Annex 12).

EXAMPLE OF ECONOMY AND EFFICIENCY

Business Process Reengineering

As a step towards improved performance of its operations, DIGIT launched in 2014 a new Business Process Reengineering (BPR) activity aiming at identifying ways **to improve the efficiency of DIGIT's processes and the value of the services provided**, as well as to support the optimisation of the allocation of resources. A strategic planning framing the BPR activities for the next two years guides the work and is regularly updated. Up to now, three BPR projects were finalised and documented in two final reports in 2015 (commitment and payment, governance and management of software development and contract management in Directorate B) and one in 2016 (DIGIT contractual and financial management). They allowed identifying ways to **optimise the reviewed processes in terms of efficiency and added value, as well as the allocation of resources**. The implementation of the approved action plans is ongoing and closely monitored leading to tangible results such as the improvement of the software development in DIGIT or the re-organisation of Directorate B. At the end 2016 a new BPR engagement covering DIGIT's service management was launched.

DIGIT also makes continues efforts to better manage its human resources, information assets and communications activities, as explained in the chapters to follow.

2.2.1 Human resource management

In the course of 2016, Human Resource Management (Unit R2) at DIGIT has undergone significant restructuring. In the context of the Synergies and Efficiencies Review, DIGIT was among the first 10 pilot DGs to take part in the pilot of the HR modernisation project. As from 15 July, the majority of HR staff were seconded to DG HR to join the Account Management Centres to deal with the bulk of administrative HR issues, while simultaneously a small HR Business Correspondent Team of 3-4 people remained in DIGIT attached to the Resources Director to mostly deal with strategic HR matters, along with a strongly reduced Unit R2 dealing with logistical and administrative issues (e.g.: move to the new "Black Pearl" Building (MO15) in early 2017). Apart from business-as-usual administrative HR files, some main projects throughout the year were:

- Talent Management & Staff Engagement
 - Implementation of action catalogue by "Talent Management Steering Committee" to increase staff engagement (until 15 July – New HR delivery model)
 - EC Staff Survey (analysis and action plan)
 - Head of Unit Mobility Exercise

- DIGIT Reorganisation in March 2017
 - HR related preparation
 - Staff consultation
 - Call for expression of interest in mobility
- Preparation of the HR part of the Digital Pole in Luxembourg
- Implementation of the HR part of the Synergies and Efficiencies Review in the ICT domain

2.2.2 Information management aspects

The document management function is well established in DIGIT, as shown in Annex 2.

Concerning information and knowledge management, the Commission adopted a Communication⁶ concerning this domain in October 2016, accompanied by a staff working document³¹ that sets out (1) a general orientation for a Commission policy in this area; (2) concrete immediate actions in four main areas; (3) a governance framework that fits into existing structures. DIGIT actively participates in the strategic guidance of this work, through the membership to the Information Management Steering Board (IMSB) and to the Information Management Team (IMT). In particular, DIGIT worked in close cooperation with the Secretariat General to identify, assess and promote the set of initiatives for the implementation of the Communication and to ensure the monitoring of the progress towards the identified targets. DIGIT took a prominent role in particular in the Data4policy initiative, collaboration, knowledge and information sharing, data modelling and management. In this context DIGIT either led or contributed to launch a large set of actions, as shown below:

Action in the Data, Information and Knowledge Management Communication Rolling Plan	DIGIT's role
Action 1.1: Develop capability to search easily across different systems and languages	Contributor
Action 1.2: Make information more easily accessible, reinforce restrictions on sensitive and classified information, improve security	Contributor
Action 1.3: Development of data, information and knowledge management principles	Owner
Action 1.4: Information systems made interoperable	Owner
Action 1.5: Apply standards for corporate data and metadata management – Budget Focused on Results (BFOR) App	Co-Owner
Action 1.7: Adapt rules and guidelines developed for the INSPIRE Directive	Contributor
Action 2.A1: Provision of Connected to interested DGs and cross-Commission business processes	Contributor
Action 2.A2: Evaluate and develop existing collaborative tools at the Commission	Owner

³¹ SWD(2016) 333 of 18/10/2016

Action in the Data, Information and Knowledge Management Communication Rolling Plan **DIGIT's role**

Action 2.A3: Develop a Talent search functionality.	Contributor
Action 2.A5: Business intelligence: analysis of needs	Contributor
Action 2.A6: Business intelligence tools	Owner
Action 2.A7: Evaluate other collaborative tools (also in view of working with external stakeholders)	Contributor
Action 2.B1: Develop knowledge centres and competence centres for priority policy areas	Contributor
Action 3.2: Develop big data capability at the service of the Commission's political priorities	Co-Owner
Action 3.3: All new Commission information systems will be compatible with the EU Open Data Portal	Contributor

See also output 1-13 in Annex 12.

2.2.3 External communication activities

DIGIT, as an internal service provider within the Commission, essentially carries out internal communication activities. Nonetheless, in 2016 it successfully organised two inter-institutional events, largely covered on social media.

InterHack, the first hackathon, jointly organised with the European Parliament (DG ITEC) and the Council of the EU, took place on 15 October in Brussels. Five teams presented innovative ideas to improve the way of working with the help of new technologies. The event brought together IT professionals from the EU institutions to solve challenges that are common to the three institutions, helping answer user requests, making work more efficient and improving inter-institutional collaboration and innovation. It was also the first real test for the cloud infrastructure available for the EU institutions.

On 29 November DIGIT organised – together with the IT Department of the European Parliament – DIGITEC 2016: Digital Future conference. The first inter-institutional IT forum brought together the IT communities of the EU institutions to share best practices to transform public administration through IT.

885 attendees came on site and 960 watched the live web-stream broadcast to the external public. 36 speakers debated on the workplace of the future, digital democracy and technologies of the future. 15 stands presented IT projects and initiatives of the European Commission and the European Parliament. DIGITEC was extensively covered on Twitter with 3100 tweets posted with #digitec16.

While the above two events reach out to a rather narrow target audience specialised in IT, they still aim to show to citizens the added value of the underlying activities – like promoting interoperability or user-friendly IT solutions in DIGIT's case. These efforts are in line with the Commission's overarching communication objective to strengthen the citizens' perception that the EU is working to improve their lives.

For an extensive reporting on all the above components, please refer to Annex 2.