European Commission

DIRECTORATE GENERAL INFORMATICS

DIGIT 2018
Management Plan

### mobile. secure. user-friendly.

Contents

The Directorate-General for Informatics (DIGIT) is the Commission department responsible for providing other Commission departments and European institutions with high quality and innovative digital services in their daily work.

DIGIT's vision is to develop and lead the digital transformation of the Commission so that it can deliver EU policy **better**, **more efficiently** and **more productively**, fully seizing the opportunities offered by new technologies, and facing the challenges arising from digitisation.

In line with the **Commission Work Programme 2018**[1], DIGIT is also involved in the delivery of the "Connected **Digital Single Market**" (DSM) – one of the main CWP policy objectives – by promoting the modernisation of the European public sector and offering interoperability solutions for European public administrations, businesses and citizens (DIGIT's specific objective 2). To support the DSM strategy, DIGIT relies to a large extent on the ISA² programme[2].

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."


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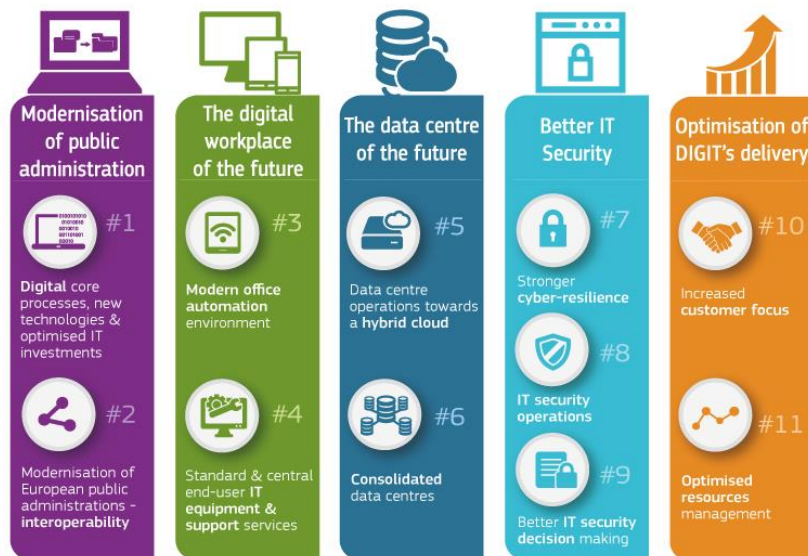
[1] https://ec.europa.eu/info/sites/info/files/cwp_2018_en.pdf - COM(2017) 650 final 24/10/2017
[2] https://ec.europa.eu/isa2/home_en

DIGIT's strategic framework for the period 2016-2020 is well defined in its Strategic Plan[3]. As shown in the previous graphic, eleven specific objectives are grouped around five priorities, aiming at establishing and enhancing the modernisation of public administration, the digital workplace of the future, the data centre of the future, a better IT Security, and a custom-oriented delivery of IT services.

To deliver on these priorities, as outlined in the Communication on "Synergies and Efficiencies in the Commission – New Ways of Working"[4], DIGIT is leading the change process in the ICT (Information and Communications Technology) domain through delivering the following Synergies and Efficiencies Review (SER) ICT agenda by 2019:
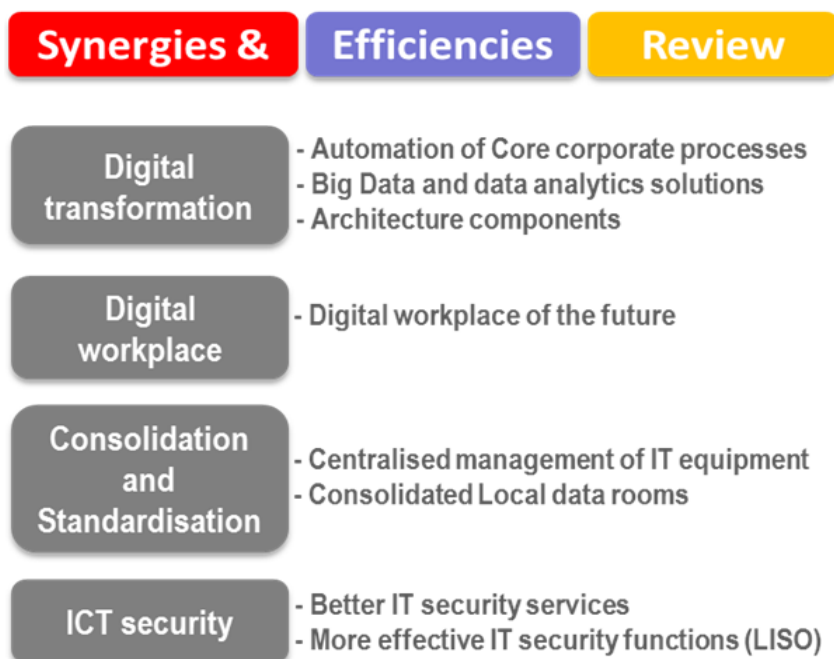
DIGIT continues implementing and improving the SER ICT actions in 2018. The prompt allocation of resources and the smooth collaboration between the concerned internal and external actors remains crucial to achieve the objective.

Following the reorganisation of the DG as from March 2017, in 2018 DIGIT will keep improving and stabilising the new work environment. After the inauguration of the **Black Pearl** in Brussels, the gradual setting-up of a **Digital Pole** will continue in Luxembourg.

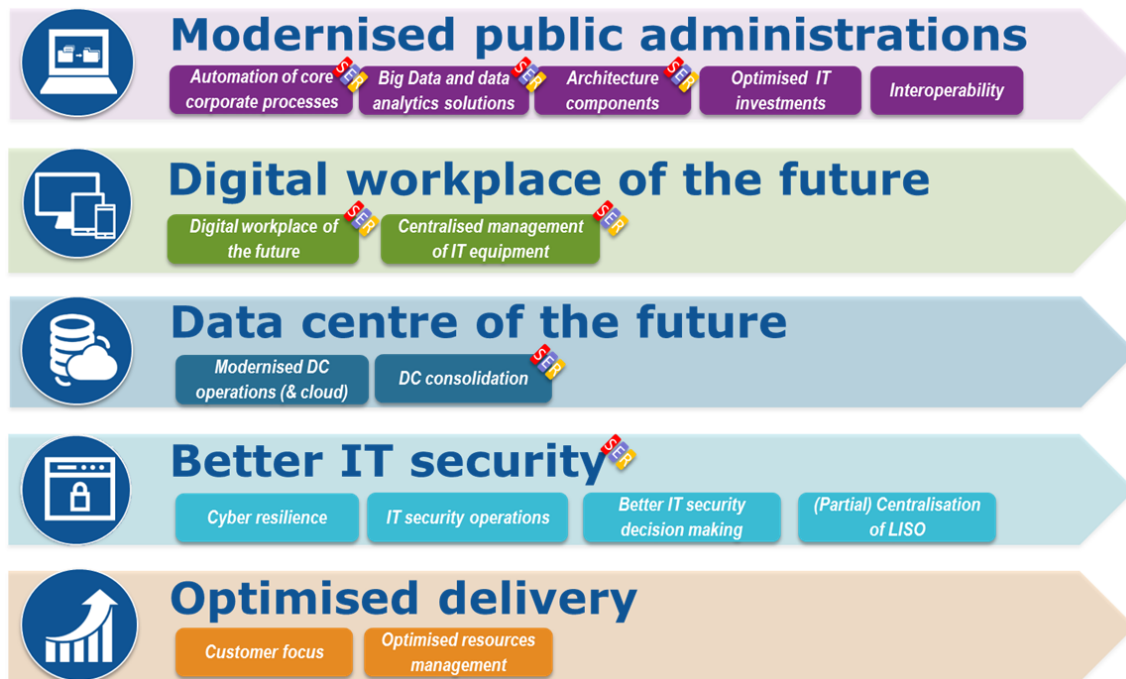[3] http://ec.europa.eu/atwork/synthesis/amp/doc/digit_sp_2016-2020_en.pdf
[4] SEC(2016) 170 final - Adopted by the College on 04/04/2016

The following chapters present DIGIT's main outputs planned for 2018 along the DG's five strategic priorities and related specific objectives.

High visibility and close managerial attention is dedicated to the work on the 2018 milestones of the SER ICT actions, which are well aligned with DIGIT's 2016-2020 performance framework:

Modernised public administrations

- Automation of core corporate processes
- Big Data and data analytics solutions
- Architecture components
- Optimised IT investments
- Interoperability

Digital workplace of the future

- Digital workplace of the future
- Centralised management of IT equipment

Data centre of the future

- Modernised DC operations (& cloud)
- DC consolidation

Better IT security

- Cyber resilience
- IT security operations
- Better IT security decision making
- (Partial) Centralisation of LISO

Optimised delivery

- Customer focus
- Optimised resources management

DIGIT priority 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, exploiting the power of **new technologies and business models** and supporting the **IT Governance** (specific objective 1). Externally, DIGIT promotes the **modernisation of European public administrations** through the provision of **interoperability solutions** and Digital Single Market (DSM) **building blocks** (specific objective 2).

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

As expressed in its vision and mandated by the SER Communication, DIGIT – in partnership with the business domain leaders and the impacted Directorates General – is working on a **digital transformation agenda** that could be structured along three dimensions:

- A) automation of core corporate processes;
- B) data analytics;
- C) architecture components.

In 2018 the following main deliverables are foreseen in the above work areas:

A) **The automation of core corporate processes** will continue in the selected priority areas of convergence such as procurement, direct grant management and interactions with suppliers and grants participants via SEDIA (Single Electronic Data Interchange Area). Further opportunities to drive synergies through rationalisation and digitalisation will be identified through a systematic review of key processes, for example in decision making (including at inter-institutional dimension) or HR processes, as well as to enhance the implementation of Union policies including where needed with Member States.

B) **Data analytics** will open new horizons for the Commission by allowing early detection of trends and faster feedback in support of Better Regulation and evidence-based decision making. DIGIT will play a leading and coordinating role in this domain. DIGIT will continue reinforcing the activities in this area by further investing in Proof of Concepts, provisioning of further data analytics corporate services as well as coordinating efforts in this domain amongst the different DGs. This will provide an opportunity to Commission services to maximise their efficiencies through knowledge sharing, and reuse. It will also further encourage the use of data analytics in order to facilitate better decision making through the use of relevant evidence.

In order to achieve this, DIGIT together with partner DGs will continue to create and support communities of practices, organise thematic workshops and working groups with interested stakeholders to understand their needs, share experiences and keep running and assessing the ongoing data analytics pilots.

On the basis of the lessons learnt so far and the priorities that have emerged, DIGIT – in close cooperation with the main stakeholders – will propose and start implementing a Data Strategy[5] for the Commission which will guide the preparation of the next priority areas in this domain.

C) **The architecture components** action ensures that information systems in the Commission are built by assembling a set of reusable building blocks, following a once-only principle. The target is an interoperable and consistent business automation environment empowering knowledge workers with immediate access to and efficient handling of all relevant information. To this end, in 2018, the catalogue of reusable components will be extended and the roll-out of these components will continue. In addition, further actions will be implemented to facilitate the reuse of these architectural components and building blocks as well as consolidate the corporate ecosystem of reusable components.

In line with the Commission's Communication on *Data, Information and Knowledge Management at the European Commission*[6] – adopted in 2016 –, DIGIT will keep contributing to the modernisation of the Commission's information management core process in 2018. Among others it will further develop the Enterprise-search capability and enhance collaboration and thus knowledge sharing.

The outputs mentioned so far all contribute to the achievement of DIGIT's first specific objective: by modernising the Commission's core processes (Data, Information and Knowledge management), by digitalising the Commission's core processes (SER action: automation of core processes), by exploiting new technologies (SER action: data analytics solutions but also novel technologies like Blockchain or Artificial Intelligence) or by optimising IT investments (SER action: architecture components). Concerning this last point on **optimised IT investments**, DIGIT will continue to support the corporate IT Governance to take well-informed decisions on IT investments.

A number of the above mentioned activities related to data, digital solutions and infrastructure, and modernisation of public administrations will be conducted in the framework of the Digital Pole, an initiative dedicated to reinforcing the Commission's digital competences in support of the Digital Single Market.

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[5] The data strategy effort was launched in 2017 in order to providing a framing to the multiple initiatives carried out by DIGIT in the context of data management, analytics, Business Intelligence etc. This strategy was foreseen also to ensure the right links and coordination of the different activities related to overarching initiatives within the area of the data, information and knowledge management.
[6] C(2016) 6626 final – 18.10.2016

Relevant general objective: 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.

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

Main outputs in 2018

Output	Indicator	Target
SER – DIGITAL TRANSFORMATION: AUTOMATION OF CORE CORPORATE PROCESSES		
1-1 Compliance track a) This activity focuses on complying with the eProcurement directives and the Financial Regulation through the roll-out of the eSubmission and eInvoicing functionality of eProcurement.	a) Roll out eSubmission and eInvoicing.	In 2018: a.1) Effective support for electronic submission for all procedures above the Directive thresholds by end 2018, in all Commission DGs and services, offices and executive agencies. a.2) Interoperability with national eInvoicing solutions is through Open PEPPOL, by end 2018.
b) This is further complemented by the implementation of SEDIA (once only principle for suppliers and participants).	b) Gradual integration of eProcurement services in the new SEDIA Portal, including in particular the registration of bidders submitting an offer.	b.1) Possibility to request REA Validation Services in procurement context by January 2018. b.2) Introduction of the SEDIA portal by summer 2018.
1-2 Performance track This activity focuses on the roll-out of the full post-award eProcurement chain together with the implementation of direct grant management for	a) Design of the To-Be models targeting a complete business-and-IT solution by which the process for handling procurement information will be fully automated	a) Detailed planning of the implementation of the new eProcurement solution to be rolled out in all SER entities[7] by end 2020

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[7] SER entities refer to the various entities involved in the eProcurement part of the Synergy & Efficiency Review exercise.

eGrants.	and integrated, limiting to the strict minimum the manual input of data, and promoting the alignment and reuse of such data along the different processes. b) Extension of the roll-out of eGrants for direct grants.	(delivery of the planning by 2018). b) Further roll-out to 4 DGs or agencies.
1-3 Integration of eProcurement and eGrants The partial implementation of the Opsys project with involvement of both eProcurement and eGrants.	Pilot the convergence of eProcurement and eGrants.	Production roll-out for beneficiaries of DEVCO/NEAR/FPI Framework Programmes.
1-4 Identification of further core-corporate processes to automate in key areas a) Document Management and Archiving. b) Legislative lifecycle transformation (e.g. Decide, Better Regulation Portal). c) HR processes transformation (from recruitment to payment and retirement and including Inter-institutional roll-out).	Specific deliverables that are being defined with the client DGs.	Agreed deliverables delivered on time and accepted by the client
SER – DIGITAL TRANSFORMATION: DATA ANALYTICS		
1-5 Data Analytics - Strategy	a) In close cooperation with stakeholders, finalisation of the Data Strategy initiated in 2017. b) Coordination with other strategic analytics initiatives (business intelligence, advanced	a) Endorsement and start of the implementation of the Data Strategy. b) Set-up and start of the implementation of the interlinked set of strategy on analytics

	analytics and artificial intelligence), in the context of the Digital Pole.	in broad sense (artificial intelligence, business intelligence, data analytics).
1-6 Develop an internal EC stakeholder engagement plan on data analytics solutions and service provision in the domain of data analytics	a) Establishment of an implementation roadmap based on the Data Strategy for EC drafted in 2017.	a) Implementation roadmap delivered.
	b) Establishment of an active facilitation of the analytics community of practice encompassing amongst others business intelligence and artificial intelligence.	b) Active facilitation of communities of practices established.
1-7 Continue the piloting and develop the analytics infrastructure	a) Executions of new Proof of Concepts, particularly around Artificial Intelligence (AI) and Business Intelligence (BI).	a.1) New AI Proof of Concepts in the area of Data4Policy executed. a.2) New BI Proof of Concepts around internal resource data (HR and financial) and the activities of the Commission (programme implementation) executed.
	b) Manage and govern the analytics federated catalogue of services together with the other DGs.	b) Analytics catalogue of services in place and provision of the identified services started.
	c) Establishment of a Corporate analytics service on web presence (based on PIWIK).	c) PIWIK Corporate Service established.

	d) Setting up the first EC Data Space[8]. e) Establishment of a (big) data infrastructure for the Commission and Member States (under CEF).	d) EC Data Space set up. e) Big data infrastructure launched[9].
SER – DIGITAL TRANSFORMATION: ARCHITECTURE COMPONENTS		
1-8 Catalogue of Reusable Components[10] Identify common IT needs between DGs that may turn into new reusable components and extend the catalogue with this new set.	Extension of the 2017 Catalogue of Reusable Components with additional production-ready, full-serviced components.	Catalogue of Reusable Components extended with at least 3 additional production-ready, full-serviced components.
1-9 Enhance the maturity and further roll-out of the established set of reusable components a) eUI Platform	a) eUI platform: • align with other major initiatives[11] • roll-out in DIGIT.B developed information systems	a.1) End 2018: Align with ECL (Europa Component Library) of DG COMM. a.2) Roll-out in DIGIT.B Q4 2018: 2 additional DIGIT.B Information Systems adopting eUI
b) Corporate Notification Service (CNS)	b) CNS: 5 new reuse cases[12].	b) Implemented by end 2018.

[8] The EC Data Space will be a well-managed storage repository that is capable of holding a vast amount of raw data in its native format allowing to have a single store of all data in the enterprise.

[9] Following a number of discussions between DG DIGIT and DG CNECT, the concept of Big Data Test Environment was included for the first time in the European Cloud Initiative Communication (http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016DC0178&from=EN)
In Dec 2016: The Big Data Test Infrastructure (BDTI) project was launched by DIGIT.B4 under ISA Action 2016.03 – Big Data for Public Administrations. As a follow-up, during 2017, the BDTI was accepted as a building block to be financed by CEF under the 2018 WP.

[10] NB: At the end of 2017, the existing production ready components in the catalogue are the following: eUI Platform; Corporate Notification Service (CNS); Corporate Search; EU Login; ESSI; eTrustEx; CEF eDelivery; CEF eID; CEF eSignature; TESTA.

[11] Europa Component Library (ECL) of DG COMM, European Parliament UI initiative (EP UI mobile toolkit).

[12] NB: at the end of 2017 CNS is used in production by Ares (SG), Decide (SG), Better Regulation Portal (SG), Base Contentieux (SJ), SECPAC (JRC), SYSPER (HR), My It Support (DIGIT) and On The Go (DIGIT).

c) Corporate Search	c) Corporate Search Box indexing data from DECIDE, ARES, MyIntracomm and DGT data sources deployed in production and accessible by EC users.	c.1) Q1 2018: • Corporate Search Box in production and accessible from one single URL as Pilot. c.2) Q3 2018: • Access to the Corporate Search Box will be extended to all EC users.
d) EU Login	d) EU Login: Roll-out of an authentication solution for Wifi4EU based on EU Login.	d) Pilot with EU Guest Wi-Fi delivered in Q1 2018.
e) ESSI	e) ESSI: Roll out eSignature (eSeals) infrastructure to support ARES and other major processes.	e) ESSI Infrastructure in place by end 2018. • Support for the creation of visual signatures/seals. • Time-stamp brokerage services. • Support for "documentless" (hash-only) signing/sealing.
f) eTrustEx	f) eTrustEx	f) eTrustEx • Update the Web-Client of eTrustEx to a more secure, interoperable and user-friendly technology as well as making it mobile friendly. • Simplify the architecture of the eTrustEx platform by replacing the current adapter by the eDelivery Access Point of CEF

		(synergies and efficiencies between programmes).
g) CEF eDelivery	g) CEF eDelivery	g.1) Increase the number of solutions that have passed or the conformance testing according to CEF's AS4 profile (i.e. between 3 and 6 new solutions added to the list).
		g.2) Support the deployment of conformant Access Points and Service Metadata Publishers (SMPs) throughout Europe (i.e. between 28 and 50 new deployments).
h) CEF eID	h) CEF eID	h) Support the MS to meet the 29 September 2018 deadline which entails the setting up of eIDAS eID infrastructure: • Final release of reference implementation by Q3; • Support for final specs by Q2.
i) CEF eSignature	i) CEF eSignature	i.1) Open-sourcing of TL-Manager by end 2018.
		i.2) User on boarding process defined for CEF reuse of building block by end 2018.

j) TESTA	j) TESTA: Operational and technical requirements for the future TESTA procurement drafted a design environment set up in order to specify the technical and governance requirements for the future TESTA network.	i.3) Advanced search functionalities in place in Trusted List Browser by mid-2018. j.1) Specifications completed by end 2018. j.2) Draft design document delivered by end 2018.

1-10 Infrastructure and services enabling the reuse of architectural components and building blocks	Application Programming Interface (API)[13] management platform.	• Q1 2018: Availability and criticality of the Platform is defined before the Platform will be in production;
		
		• End 2018: Platform used by at least:
		  o 2 main DIGIT projects (such as OPSYS)
		  o 2 projects from other DGs.

1-11 Building a Corporate Workflow Ecosystem	Create a first major common component between all existing Workflow platforms.	End 2018[14]: A working Proof of Concept (PoC) of a common Task Centre Component used by the following systems: • Compass (RTD), • RDIS (AGRI), • OPSYS (DEVCO) and Wave (REGIO).

[13] API is a platform that enables new architectural paradigms and more modern and agile deployments of new solutions. It enables building APIs as building blocks that are reused in multiple contexts.
[14] NB: The project is to be realised in successive phases over the period 2018-2020.

1-12 Modernisation of COMREF	Gap analysis of the current system and transition plan	By end 2018:
		
		 • Vision clearly defined and approved by system owner including the following:
		    o System purpose and scope
		    o Future architecture
		    o Transition plan
		
		 • Proof of Concept of an example service implemented in the new architecture and deployed in the API Management Platform.

1-13 Provide an Open Source Software (OSS) Strategy for the Commission	Review and update the 2014-2017 OSS strategy and adopt it as a Commission Decision.	• Q2 2018: OSS strategy for 2018-2020 defined. • End 2018: New OSS Strategy adopted as a Commission Decision.
DATA, INFORMATION AND KNOWLEDGE MANAGEMENT		
1-14 Data, Information and Knowledge Management Develop capabilities in Data, Information and Knowledge management in line with the Commission Communication and Staff Working Document in this domain.	Implementation and follow-up of the Work Programme 2018-19 according to the roadmap endorsed by the IMSB.	Implementation to be launched by 2018.
1-15 Collaboration Develop a corporate solution for internal collaboration by combining user-centric and document-centric platforms and management facility,	a) Implementation of the detailed roadmap associated to the Collaboration Solutions strategy.	a) Finalisation of detailed roadmap in Q1 2018.

including the integration of social networking features, as from the lessons learnt from the Yammer pilot.	b) Progress towards the integration of corporate collaboration solutions.	b) End 2018[15]: progress towards the collaboration solutions tool-set via further integration of existing solutions and streamlining of the current corporate offer. Additional pilots on cloudification and seamless internal-external collaboration.
1-16 Web presence	Provision of a modern and digitally transformed web-presence for the European Commission and the European Institutions (Europa domain) that will allow for the rationalisation of contents and resources.	In close cooperation with DG COMM and DGT, further progress in the digital transformation of the web presence of the Commission. In particular, further advancements in the three-layer approach to the organisation of the web sites and support to the development of the revamped dedicated sites.
OPTIMISED IT INVESTMENT		
1-17 Corporate IT Governance Corporate IT Governance implemented through contribution of the DIGIT/SG IT Investments Team (assessments of projects, agenda preparation of and participation in the IT Board) Among others: • Assess the value and risks of IT Investments, identify synergies and best practices and provide advice and	a) In general, bring increased coherence to the Commission's IT landscape among others by increasing re-use scenarios, finding synergies between DGs and involving DIGIT as catalyst when appropriate: % of IT budget spent having been reviewed. b) Implementation status of the action plan addressing the	a) Review the major IT Investments representing a minimum of 15% of the IT budget spent. b) A timely implementation of the potential action plan

[15] NB: The project is to be realised in successive phases over the period 2016-2020, in parallel tracks.

recommendations; • Identify the IT Investments that have the potential to become a standard or corporate system and those that should leverage such existing building blocks (see output 1-8 on reusable components); • Guide DGs on the allocation of the common budget for management and information systems; • Strengthen the knowledge of the IT community through the organisation the Digital Stakeholder Forum.	recommendations of an ongoing IAS audit.	that will address the IAS recommendations.
Work requested by the European Parliament		
1-18 Preparatory action (PA) on the Governance and Quality of Software Code - auditing of Free and Open Source software[16]	Timely delivery.	Agreed 2018 PA actions delivered on time.
1-19 Preparatory action (PA) on Data analytics solutions for policy decision making	Phase 1 implementation and delivery of the action.	Development, implementation and promotion of data analytics solutions for evidence based policy making by Q4 2018.
1-20 Preparatory action (PA) on Linked open data in the European public administration	Phase 1 implementation in close cooperation with the Publication Office and delivery of the action	Develop the potential and enhance the use of open data by linking them. Promote linked open data in the Commission by Q4 2018.

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[16] On the request of the European Parliament, DIGIT will implement this PA through additional code reviews and by extending the inventory and communities evaluation using bug bounties with the aim to set-up a continuous service allowing enhancement of the IT infrastructure security.

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

As previously stated in the introduction, DIGIT keeps pursuing the objective of delivering further interoperable and efficient solutions to the European Public Administrations. ISA² remains the main tool to strengthen the growth of the digital economy and its crucial services.

DIGIT supports the DSM strategy also through other means, such as the interoperability and digital checks in EU legislation detailed below, and the provision of Connecting Europe Facility (CEF) Building Blocks: eID, eSignature, eInvoicing and eDelivery.

In 2018, DIGIT will continue to run the core processes necessary for the Commission and 3 million external users to authenticate via EU Login, and for internal users and institutions to electronically sign documents via ESSI (such as the electronic Official Journal), while reinforcing this ecosystem and furthering uptake of its services. A new project launched will be EU Access, aiming to consolidate over time the different authorisation systems at the Commission.

Another new activity will be the Trans-European Systems (TES) Rationalisation, based on existing work on TES Cartography, to be launched in close cooperation with other DGs, in order to optimise the IT investment in this area, maximise synergies and stimulate the use of CEF and other corporate Building Blocks.

For 2018, the modernisation of Public Administration will be promoted and supported through activities related to the ISA² program (2015- 2020). DIGIT will prepare, negotiate, and liaise with the Member States and Commission services to increase the quality of the European public services delivered digitally to their end-users through interoperability (European Interoperability Framework and its action plan) and new key technologies (blockchain, AI, IoT…). In this way DIGIT continues to contribute to DSM actions such as the Catalogue of ICT Standards, the Single Digital Gateway, the eGovernment Action Plan 2016-2020, and the free flow of data initiative. DIGIT will also contribute to the implementation of the actions requested in the Tallinn Declaration on eGovernment[17]. DIGIT will continue the monitoring of the Public Administrations activities through the National Interoperability Framework Observatory (NIFO).

It is crucial to constantly assess the performance of the programme by measuring the relevance, efficiency, effectiveness, EU added value, coherence and quality and utility of the implemented actions. For this reason, ISA² will undergo an interim evaluation mid-2018, in order to verify the status of the programme before its finalisation in 2020.

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[17]   https://ec.europa.eu/digital-single-market/en/news/ministerial-declaration-egovernment-tallinn-declaration

DIGIT priority 1
Modernisation of public administration

DIGIT also supports the works of the Inter-Service Group on Public Administration Quality & Innovation (IGPA). This will help to prepare for the next Multiannual Financial Framework (MFF), in the context of which an impact assessment is required for the preparation of a successor of the ISA² programme.

In its delivery of interoperability solutions, innovative IT technologies and the promotion of digital public administrations, DIGIT will benefit from the favourable digital innovation ecosystem created in the framework of the Digital Pole.

Relevant general objective: A Connected Digital Single Market

Specific objective 2: Promote modernisation of European public administrations through the provision of interoperability solutions		Related spending programme: ISA^2
Main outputs in 2018		
Important items linked to the ISA^2 programme		
Output	**Indicator**	**Target**
2-1 Support the DSM strategy a) Support the implementation of the revised European Interoperability Framework (EIF), through the ISA^2 programme.	a) Support the implementation of the revised EIF (as the EIF adopted in 2010 has been largely applied by Member States).	a) In 2018, the monitoring mechanism by the National Interoperability Framework Observatory (NIFO) will be adapted to the new EIF. It will tested by doing pilots with 3 member states and 3 DGs to fine-tune the mechanism.
b) Participate and contribute to relevant DSM actions such as the Catalogue of ICT Standards, the Single Digital Gateway, the eGovernment Action Plan 2016-2020, free flow of data initiative, etc.	b) Contribute to relevant DSM initiatives form the interoperability point of view.	b) The expected results for 2018 are: support the Digital Single Gateway and promote the services semantic models and the ICT standards catalogue. Support the monitoring (progress done by Member States) and the implementation of the actions deriving from

		the Tallinn Declaration and from the updated eGovernment Action Plan.
2-2 Perform interoperability and digital checks in EU legislation Ensure that, through participation to the Impact Assessment and Evaluation processes, interoperability and ICT are considered early at the legislation-making and evaluation stage.	Run interoperability and digital checks and maintain an ICT Register of Roadmaps[18].	In 2018: • Digital checks: all new proposals of the Commission are screened for possible ICT impacts. • Interoperability checks: pilot the interoperability checks methodology – currently under development – for at least 10 legal acts. • ICT Register of Roadmaps: maintain the current version of the register and start discussions with SG about possible improvements.
2-3 Implement the ISA[2] annual work programme a) Prepare, negotiate, liaise with the Member States and Commission services; administer the annual work programme in accordance with the legal decision and the extended scope to businesses and citizens targeting different levels of administration; procure in accordance with procurement rules and programme's implementation plan and	a) Adopt and execute the 2018 work programme. Procure and implement actions as planned.	a) The 2018 work programme is adopted and launched on time (Q1 2018); actions are procured within the planned time frame and budget as detailed in the work programme.

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[18] This latter is an Excel-based dataset, which lists the roadmaps and inception impact assessments published by the Commission since 2015 along with DIGIT's evaluation whether these initiatives may or may not have ICT impacts.

budget. b) Prepare next year's work programme.	b.1) Prepare the 2019 work programme.	b.1) The 2019 work programme is prepared as per legal basis; draft version following ISC ready by end of 2018.
	b.2) Start the mid-term evaluation of the ISA² programme.	b.2) Launch the mid-term review of the programme (to be completed in 2019).
2-4 Engage interoperability stakeholders through: a) specific actions, including those contributing to the rolling plan of the Communication on Data, information and knowledge management;	a) Identify and promote standards for corporate data and metadata management for use by the European Commission and facilitate that the Commission's information systems become interoperable.	In 2018: a) Ensure the reuse of interoperability specifications (EIF) by the Commission internal services – aligning DIGIT solutions and services.
b) liaising with internal and external stakeholders on interoperability;	b.1) support the activities of the Inter-service Group for the quality and innovation of Public Administrations (IGPA). b.2) engage with external interoperability stakeholders.	b.1) Contribute to the organisation and the content of the IGPA meetings (internal stakeholders). b.2) Provide support and animate the Chief Information Officer (CIO) network and develop further links with International Organisations like OECD. Invitations from national administrations and participation in events in Member States. Participation of

		stakeholders in ISA[2] working groups and actions in general.
c) communication actions presented under Part 2, section D on 'External communication' but targeting also internal Commission services.	c) Please refer to Part 2 of this Management Plan – Section D – External Communication.	c) Please refer to Part 2 of this Management Plan – Section D – External Communication.

Other important outputs		
Output	**Indicator**	**Target**
2-5 Connecting Europe Facility (CEF) In relation with the "eGovernment Action Plan 2016-2020", roll out CEF Building Blocks in the Member States and within the European Commission and provide test services for the public and private sectors.	The performance in rolling out building blocks.	In 2018: • Increase the reuse of Building Blocks by CEF's Sector Specific Digital Service Infrastructure by 2% from the existing 86%. • Increase the reuse of Building Blocks by Policy Systems projects and Corporate Systems projects by 2% from the existing reuse rate of 19% and 67% respectively.
2-6 Preparatory action (PA) "Encrypted electronic communications of Union institutions" a) EU Secure File Exchange Creation of a managed service for the EU Institutions based on the Access Points of CEF eDelivery, ISA's eTrustEx platform and sFTP.	a) Milestones: • Consolidation of the software elements and infrastructure elements of the managed service. • Creation of operational, governance and funding	a) • Software elements and infrastructure elements of the managed service consolidated by Q2 2018. • Operational, governance and

	model.	funding model defined by Q3/2018.
b) The SECure Address Book and Certificate Exchange project (SECABC) aims at delivering a service that allows to exchange public keys of the European Institutions and other European bodies. This will allow to simplify the information exchange processes.	b) Milestones: • Define and implement a process for the exchange of information with one partner. • Launch a pilot with an interested entity.	b) • Process and procedures defined by end of Q2 2018. • Pilot running with an interested entity by Q4 2018.
c) The EU2F (European Union Two-Factor) project aims at providing identities to resources with a high Level of Assurance[19].	c) Milestones: • Inventory of partners for the different proposed options. • Pilot with one partner.	c) • List of interested partners finalised by end of Q3 2018. • Pilot with one partner running by end 2018.
2-7 Pilot project (PP) on the deployment of the online eIDs and Digital signatures This pilot project aims at providing the European Parliament and the European Commission with an online means of authentication to access online services in a secure manner, as well as digital signatures to electronically sign documents required in the daily work of the EU institutions.	a) Information systems can rely on authentication and signature services integrated with national eID solutions and eIDAS-compliant signature services. b) Alignment of the signature services of the Commission and the Parliament. c) Authentication and signature services provide features allowing	a) Authentication and signature services integrated with national eID solutions and eIDAS-compliant signature services in pilot by end of Q2 2018. b) Progress on services alignment between Commission and Parliament on signature by Q4 2018. c) Authentication and signature services provide features

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[19] In the context of the Preparatory Action launched by the EP, the EU2F project aims at better securing communications and accesses to applications by generalising the 2-factor authentication. The outcome of this project will allow partners to use the EU Login app for 2-factor authentication in their own authentication service. This project is closely followed-up by the CII Security sub-group.

	the use of national eID solutions in a way that is equivalent to local solutions. d) Users have the hardware and software required to use their national eID.	allowing the use of national eID solutions in a way that is equivalent to local solutions Q4 2018. d) Hardware and Software delivered to a pilot population: Q4 2018.
2-8 Trans-European Systems (TES) Rationalisation The objective of this action is, starting from the TES Cartography, to launch a process of rationalisation of the existing Trans-European Systems.	Milestones	• Strategy defined and governance for TES rationalisation set up by Q1 2018. • Roadmap drafted and approved by Senior Management by Q2 2018. • Implementation of road map started.

DIGIT priority 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 **standardising and centralising 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

DIGIT's efforts to build a modern office automation environment point towards creating the workplace of the future foreseen in the SER Communication. Close cooperation is happening between the services involved in this work strand (HR, OIB, OIL and DIGIT) to define together the principles and concepts then test them before starting the actual implementation. Due to its IT expertise, DIGIT is responsible for the **'Digital Workplace (DWP)' SER initiative**, which will provide 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. It will be adaptive and flexible to incorporate different types of users, new behaviours and new technologies. Through the above-listed user-centric actions, DIGIT expects to maintain or even increase the overall satisfaction level of the end users with the DWP solutions over the coming years.

Practically the DWP initiative is organised around the following six complementary components:

1. A balanced mix of **Devices**, including either Corporate or BYOD mobile devices, allowing connection from anywhere and at any time.
2. **Office Automation** comprising supported operating systems, word processors, spreadsheets, presentation editing tools, access to files, etc.
3. **Mail & Calendaring,** including the central role of the e-mail and its tight integration with calendar tools as a natural way to send messages, share information, manage time and meetings.
4. **Unified Communication** encompasses different sources of real and near-real time communications, like Video Conferencing and the future 'Voice over IP' telephony.
5. **Collaboration and social networking** with special attention on their right availability, security and integration in mobile platforms. This component has a very strong link with **Data, information and knowledge management**, because smooth collaboration is indispensable to fast and efficient information sharing. For this reason, the output on collaboration (1-15) is presented under specific objective 1.
6. **Integration and Identity & Access Management.** The future Digital Workplace will be based on **a Hybrid Platform**, which is an infrastructure partially built on premises and partially in a public/private cloud linked by a common User Identity schema to take the maximum benefit of technology development and to allow mobility. It provides the glue between the

different services of the Digital Workplace from a user centric perspective – as shown by the illustration.
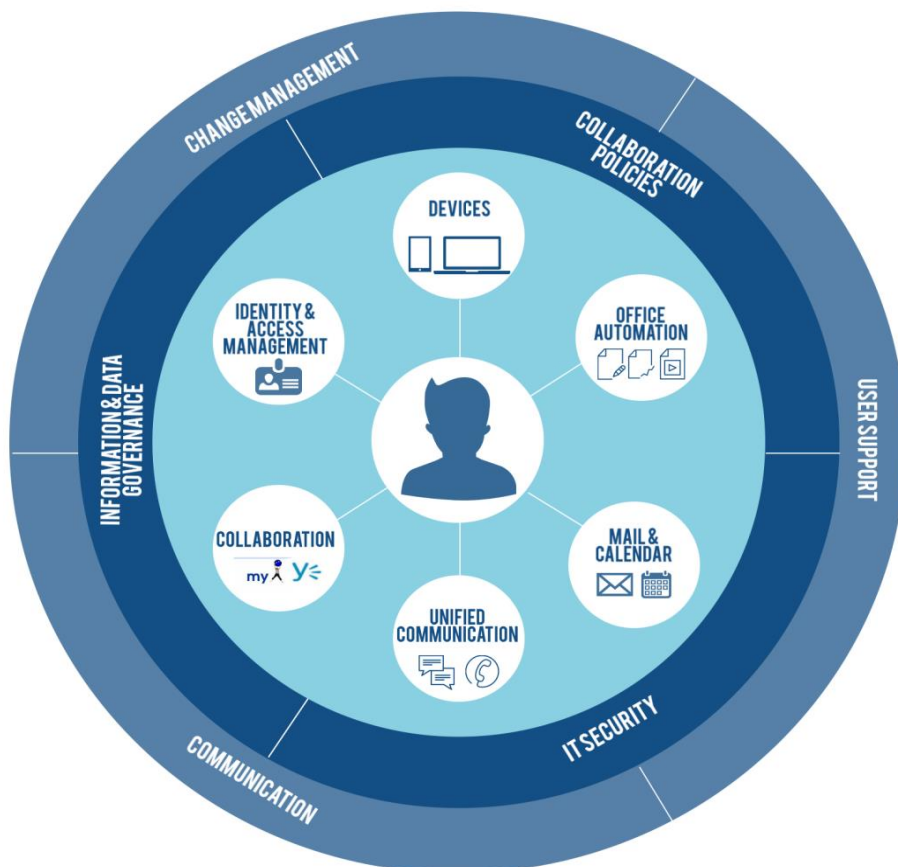
The DWP also integrates with the corporate initiatives in improving IT Security and collaboration, and will be one of the building blocks in information and data management.

The relationship between the end users of IT services and helpdesks will be significantly improved by the use of modern approaches in self-servicing and automation, resulting in an overall reduction of the need for IT support. These changes, together with the improvement of mobility, will require some adaptation of our way to deal with our IT tools. These changes will be accompanied by the appropriate communication and helped by means of Change Management techniques.

The projects linked to these components will be realised in successive phases over the period 2016-2019, as outlined in the Digital Workplace Strategy, which was submitted to the Corporate Management Board in October 2016.

In 2018 DIGIT will complete the migration from Windows 7 to Windows 10 which will bring significant improvements in terms of productivity and user experience

(for instance, the boot time of PCs will be reduced considerably). Windows 10 also introduces technologies that will improve the security of laptops and desktops. At the same time, the Microsoft Office Suite will be upgraded from Office 2010 to Office 2016.

In order to support a more mobile way of working, DIGIT will offer laptops as baseline in 2018, within the budgetary constraints. The Unified Communication solution that was successfully piloted in several DGs, will be rolled-out in the entire Institution.

The Windows backend infrastructure is the core of the engine running behind the Windows user environment. It contains an extensive amount of sensitive data and controls access to a very large number of Commission services, and is therefore a systematic target in Cyber Attacks. In 2017 DIGIT has completed the design of a new foundation or backend infrastructure. Cybersecurity-by-design was the main driver for this action. The transition of all environments to this new back-end infrastructure will start mid-2018 and finish in 2019.

The email infrastructure needs to be migrated to new hardware and software platforms as both are becoming obsolete. After having considered several options, and having assessed operational, security, business continuity and contractual risks, DIGIT has opted for an approach based on an 'on premise' upgrade of the email infrastructure in anticipation of a smooth transition to cloud-based services in the future. The roll-out of the new email solution will be performed in 2018.

Last but not least, from an inter-institutional perspective, DIGIT has started working on two major projects. The first one concerns the integration of Publication Office Digital Workplace within the EC environment, which will start on 1st January 2018. The second one concerns the improved collaboration of the DWP domain with other EU institutions, which has been launched in October 2017 and will result in the creation of dedicated task forces sharing resources and activity. The task forces will cover three areas: a) Common Public Cloud Procurement; b) Integration and Identity and Access Management, as the most fundamental component allowing a deeper and secure collaboration between EU Institutions and c) the establishment of a full inventory of tools and business needs that will identify the respective strengths and maturity levels of EU Institutions per domain to avoid redundant developments or investments and ensure future interoperability. These three task forces are placed under the supervision of the *Comité Informatique Interinstitutionnel* (CII), composed of the Heads of IT Services of the EU Institutions. These two projects open the perspective of sharing Digital Workplace platform services and solutions across all EU institutions.

DIGIT priority 2
Create the digital workplace of the future

Relevant general objective: 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.

Specific objective 3: Provision of a modern office automation environment

Main outputs in 2018

Output	Indicator	Target
SER – DIGITAL WORKPLACE (DWP): ROLL-OUT OF THE DWP		
3-1 Devices a) Transition from desktop to laptop by default.	a) Proportion of laptops vs desktops in the European Commission.	a) Completed by 31/12/2020 – 30% expected by 31/12/2018.
b) Improvement of the mobile services.	b) Degree of seamless integration of smartphones and tablets in the DWP environment.	b) Deployed by 31/12/2019 – 30% expected by 31/12/2018.
3-2 Office automation a) Roll-out of Windows 10.	a) Proportion of end user workstations migrated to W10.	a) All workstations migrated to W10, by 31/12/2018.
b) Migration of Digital Workplace back office infrastructure.	b) Proportion of end user workstations migrated to the DWP infrastructure ("Hello" or "Netx").	b) Completed by 31/12/2019 – by 31/12/2018, 50% of workstations migrated.
3-3 Email & Calendaring New email infrastructure	Migration of Exchange 2010 to Exchange 2016 platform.	By 31/12/2018.
3-4 Unified Communication (UC) a) Corporate wide roll-out of UC solution.	a) Number of DGs on Unified Communication.	a) By 31/12/2019 Depending on financial means dedicated to UC, 40% of the DGs could be on UC by 31/12/2018.
b) Continue phase-out of legacy telephony.	b) Proportion of number of fixed telephone sets removed.	b) By 31/12/2019 Depending on financial means dedicated to UC, 20% of fixed telephone sets removed by 31/12/2018.
3-5 Integration and	Number of pilots integrating	By 31/12/2019.

Identity & Access Management Seamless and secured access to cloud services, using strong Identity Management (EU login).	cloud and on premise services within the hybrid platform (as part of the Digital Workplace).	3 pilots will be achieved by 31/12/2018: Integration with Digital Right Management (DRM) services in the cloud; Integration of 2016 Exchange and the Cloud; Integration with SharePoint online (SP Hybrid Platform).

Specific objective 4: Standardised and centralised management of end-user IT equipment and support services

DIGIT, as leader of the **'Centralised management of IT equipment' SER action** and in cooperation with all DGs, is working on the centralisation and standardisation of end-user IT equipment and related support services across the Commission.

In 2018 the action for centralising the management of the IT equipment will continue, finalising a simplified model that will allow further optimisation.

The logistics of IT equipment will be further optimised in the context of the Digital Workplace, taking into account the increased proportion of laptops. Finally the allocation policies defined in SER / DWP/ Devices will be implemented and continuously improved by better matching the exact user's needs.

Perception of an increasing quality of IT support is strictly linked to homogeneous, optimised and fit to purpose IT equipment assigned to each user. As part of the same objective of increasing IT support and user satisfaction, new paradigms and channels will be explored on a continuous basis.

Relevant general objective: 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.

Specific objective 4: Standardised and centralised management of end-user IT equipment and support services		
Main outputs in 2018		
Output	**Indicator**	**Target**
SER – CONSOLIDATION AND STANDARDISATION: CENTRALISED MANAGEMENT OF IT EQUIPMENT		
4-1 Centralise IT equipment management – Adaptation and optimisation of internal	Number of centralised processes for IT equipment management designed and fully implemented, that will	Finalised by 31/12/2019 Architecture of the processes defined and

processes.	replace the legacy decentralised processes heavily relying on IRMs.	50% of processes implemented by 31/12/2018.
4-2 Optimise IT logistics processes	Deployment status of new processes in the context of the Digital Workplace.	By 31/12/2019 Architecture of logistics processes fully defined and 50% of these processes will be implemented by 31/12/2018.
4-3 Explore new paradigms and channels for user support (full automatisation of support tasks, self-service functionalities, live chat for interaction with users, end user knowledge base, service desk video conferencing, etc.).	Availability of a strategy on the future user support paradigm.	Overall strategy defined by 31/12/2018.

DIGIT priority 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).

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

DIGIT intends to make optimal use of cloud computing and complement its internal data centre offering with external sourcing from the public cloud computing market for those services that can be done better and cheaper outside, in particular for systems in which the data confidentiality is low.

In this context, DIGIT will extend its role as "cloud broker", providing Cloud resources and managing cloud contracts for the European Commission and other EU entities. DIGIT will also further extend its offering for the hosting of Information Systems to include sourcing from public cloud providers.

At the same time, DIGIT intends to modernise the operations of its on premise data centres towards a private cloud model. DIGIT wants to provide its clients with a higher degree of control and transparency in the infrastructure provisioning processes by increasing automation and providing new services for the developer community.

However, this can only be done successfully by transforming the traditional datacentre operations into a genuine "private cloud on premise". In 2018 DIGIT will set up such a private cloud, covering the entire infrastructure stack from self-service request, middleware platforms and the underlying virtualised infrastructure (compute, storage, network).

This new setup will be the basis for the transformation of the data centre's delivery model into a hybrid cloud, combining the best of the public cloud market with a secure private cloud on premise.

Relevant general objective: 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.

Specific objective 5: Modernised data centre operations towards a hybrid cloud		
Main outputs in 2018		
Output	**Indicator**	**Target**
5-1 Cloud brokering by providing Cloud resources and managing the contract.	a) Provision of Cloud Broker Services (i.e. delivery of cloud services to European Commission and other institutions).	a.1) Cloud broker service defined and implemented in a uniform and structured fashion;

		a.2) Cloud broker service achieving greater coverage, in terms of: • **number of institutions** using the brokering service, • **number of DGs** using the service, • **budget provided** by customers to the brokering service.
	b) Delivering and organising publication of the next **Cloud call for tender**, in tight collaboration with the other institutions.	b) Next Cloud call for tender agreed and delivered in **Q4 2018**.
	c) Contributing to the establishment of the **Cloud governance** for European Commission, on the basis of lessons learnt.	c) European Commission Cloud governance draft agreed in **Q2 2018**.
5-2 Creation of a private cloud on premise	a.1) A high level design document of the cloud On-premises. a.2) A validated Proof of Concept with one information system deployed using the new service delivery model.	a.1) High level document completed by Q1 2018. a.2) Proof of Concept with one information system running by mid-2018 on this new platform.
5-3 DevOps New services for the developer community: - developer workstation; - continuous integration; - end-to-end monitoring.	Service catalogue extension with new services for the developer community.	New services for developers available in service catalogue.
5-4 Delivery of Cloud-based hosting services Extending the DIGIT offering for the hosting of	Inclusion of a set of Cloud based services as an integral part of the Service Catalogue for DIGIT Hosting	Provision of Cloud based services for the main hosting technologies (WebLogic application

Information Systems to include sourcing from public cloud providers.	Services, including all underpinning services (e.g. networking, storage).	servers and Oracle databases).

Specific objective 6: Consolidated data centres

In line with the timeline covering the 2016-2020 period under the **"Consolidation of Local Data Rooms" SER action**, DIGIT will pursue its efforts to consolidate the local data centres in 2018 into just two professionally graded sites in Luxembourg. The local data centre consolidation will produce considerable savings in manpower, rental cost and connectivity costs, contributing to the overall operational excellence of the Commission's infrastructure services. Through the consolidation in professional corporate data centres, DGs can benefit from DIGIT's increased service levels and 24/7 business continuity support which would not be possible to set up at local level.

Relevant general objective: 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.

Specific objective 6: Consolidated data centres		
Main outputs in 2018		
Output	**Indicator**	**Target**
SER – CONSOLIDATION AND STANDARDISATION: CONSOLIDATED LOCAL DATA ROOMS		
6-1 Data centre consolidation[20]	a) Number of local DCs consolidated.	a) By end of 2018: Consolidation finalised for ESTAT, NEAR and DEVCO. Consolidation advanced for TRADE, GROW and COMP. Due diligence study for the consolidation of 3 new local DCs finalised (RTD, CNECT, SANTE) and the subsequent migration of services started.
	b) Status of consolidation of corporate DCs.	b) First extension of Betzdorf Data Centre delivered.

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[20] NB: The programme runs beyond 2020.

6-2 On boarding of the Publication's Office IT Infrastructure	a) Deployment of a new Windows domain and Office 365 solution to replace the current OP Windows domain and mail infrastructure.	a) OP's email running in Office 365 by end of Q2/2018.
	b) Migration of some dissemination applications to the Cloud and establishment of a service in DIGIT to support operations in the Cloud.	b) CELLAR and EUR-Lex applications fully running in Amazon Web Services and supported by DIGIT as a standard service by end of Q2/2018.
	c) Convergence of network and telecommunication services and technical components to DIGIT standards.	c) Services such as videoconference, SMS gateway, DNS, firewalls and some other telecommunication services migrated to DIGIT services by end of 2018.

DIGIT priority 4
Better IT Security

In our digitalised world characterised by the growing number and sophistication of cyber threats, IT security is high on the agenda. This applies for the European Commission as well, where at the end of 2015 the role of IT security was reinforced by revising its internal governance and by creating DIGIT's IT Security directorate.

The Commission's IT Security Strategy, which was adopted by the IT Security Steering Board (ISSB) in November 2016, is built around four long-term objectives, which are in line with the specific objectives defined in DIGIT's 2016-2020 Strategic Plan. It is accompanied by a two-year rolling plan, which provides a comprehensive list of the most urgent actions based on past security reviews, audits and lessons learnt from IT security incidents, and which is aligned with the new Commission decision on the security of IT Systems[21].

In 2016 IT security was given an important part in the SER ICT agenda too. The related SER actions appear among DIGIT's 2018 IT security outputs – presented below.

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 through two main line of actions: On the one hand by ensuring that key IT security processes are implemented consistently across the Commission for main corporate IT systems. On the other hand by improving the global IT infrastructure security level through network and endpoint securisation and security oversight of key corporate systems. Through implementing these actions, DIGIT intends to increase the Commission's IT security capability and maturity leading to strengthened cyber resilience.

Relevant general objective: 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.

Specific objective 7: Strengthened cyber-resilience		
Main outputs in 2018		
Output	**Indicator**	**Target**
SER – ICT Security: Better IT security services		
7-1 IT Security processes a) Review of the privileged user Access Rights on limited parameter of corporate data centre (HeRiC project).	a) Progress in process definition, solution approval and solution evaluation.	By end 2018 a) Solution set up and validated on limited perimeter of corporate data centre.

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[21] Revision of Decision C (2006) 3602 adopted on 10th January 2017 (2017/46).
http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32017D0046

b) Implementation central asset repository for Vulnerability Management.	b) Progress in strategy and process definition, and, solution approval.	b) Strategy and process approved, and, solution validated on limited parameter of corporate data centre.
c) Extension of vulnerability scanning services for corporate infrastructure.	c) Percentage of DIGIT infrastructure covered by vulnerability scans.	c) 20% of DIGIT infrastructure covered by vulnerability scans.
d) Enabling IS Risk Management processes at corporate level.	d) Number of IS Risk Management processes reviewed.	d) 20 IS Risk Management processes reviewed.
e) IT Security processes integration in the System Life-Cycle (S²LC).	e) Number of IS following S^{2}LC global framework (including IT security processes).	e) 40 IS following S^{2}LC global framework.
7-2 Infrastructure security Provide a secure infrastructure, reducing risks for the IT systems and different users across the board, through: a) Network segregation, Network security, Network encryption and endpoint security;	a.1) Adequate network segmentation/ segregation and network access control. a.2) Adequate Endpoint security.	a.1) Execute the segmentation/ segregation plan as defined in the Workplace solutions (See Digit Priority 2, specific objective 3) and data Centre of the future (Digit priority 3, specific objective 5-2) programs. a.2) Execute the endpoint security workplan as defined in the Workplace solutions (See Digit Priority 2,

		specific objective 3) program.
	a.3) HTTPS everywhere policy available.	a.3) HTTPS everywhere policy defined and Information System owners are aware about the policy and first steps towards compliance have been taken.
b) Secure software development environment;	b) Service catalogue extension with new services: developer workstation; continuous integration; end-to-end monitoring.	b) New services for developers available in service catalogue (See Digit Priority 3, specific objective 5-3).
c) Security by consolidation.	c) SHS: Number of SHS environment.	c) 4 new systems are on boarded onto SHS.

DIGIT priority 4
Better IT Security

Specific objective 8: Provision of IT security operations

In order to secure and protect the Commission's IT assets and resources, DIGIT builds, maintains and extends the activities of Security monitoring (SOC), Information Security Incident Management (CSIRC) and Security Operations Engineering (SOE). In 2018 the DG will also pay specific attention to raising awareness of the Commission's IT professionals about the existing IT security monitoring and response services which are available in DIGIT's service catalogue, and, ensure implementation of recent IAS audit recommendations based on agreed action plan.

> **Relevant general objective: 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.**

Specific objective 8: Provision of IT security operations		
Main outputs in 2018		
Output	**Indicator**	**Target**
SER – ICT SECURITY: BETTER IT SECURITY SERVICES		
8-1 Monitoring and response Maintain and develop the operational cyber-defence capabilities, improve their maturity through the following main activities:		By end 2018
8-1.1 – Security Monitoring: a) Security Monitoring capabilities improvement (SOC); b) Extension of Security Monitoring services provisioning.	8-1.1 a) Percentage of new Windows 10 systems monitored. b) Completion of strategy definition and approval for providing extended security monitoring services.	8-1.1 a) All new Windows 10 systems monitored. b) Strategy defined and approved.
8-1.2 – Security Incident Response: Maintain and develop Security Incident Response capabilities, improve their maturity: a) Improve remote	8-1.2 a) Completion of local	8-1.2 a) EnCase solution

forensics capabilities;	deployment of EnCase solution in Brussels.	deployed and operational in Brussels.
b) Security hunting service[22] development.	b) Completion of Security hunting service setup.	b) Security hunting service defined and operational for corporate infrastructure.
8-1.3 – 2017 IAS audit recommendation – Phase 1: a) Improve change management process for DIGIT.S infrastructure;	**8-1.3** a) Completion of solution identification for change management process in DIGIT.S infrastructure.	**8-1.3** a) Solutions identified and documented.
b) Improve baseline monitoring of DIGIT data centre based on SHS experience.	b) Completion of baseline security monitoring for most used technologies in DIGIT data centre.	b) Most important SHS monitoring scenarios for baseline security monitoring identified and documented.
8-2 Security assurance services: a) Improve IT vulnerability services: false positive and exception procedure	a.1) Completion of procedure development for Vulnerability Assessment "false positive reduction".	a.1) Procedure proposed and agreed
	a.2) Test of exception management procedure on a limited scope of corporate data centre.	a.2) Procedure tested.
b) Improve Test Centre capabilities	b) Identification of code review mandatory criteria.	b) Criteria identified and validated.

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[22] This service aims at performing proactive and iterative search through networks to detect and isolate advanced threats that evade existing security solutions.

DIGIT priority 4
Better IT Security

Specific objective 9: Better IT security decision making

Complementary to specific objectives 7 and 8, this specific objective aims at ensuring efficient IT security governance and keeping senior management, IT experts and end-users informed about global IT security posture (risks and threats). Therefore the related outputs focus on providing efficient support to the decision process, sharing of information and raising awareness on IT security matters. It is expected that these efforts will lead to increased corporate level compliance with IT security rules.

Relevant general objective: 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.

Specific objective 9: Better IT security decision making		
Main outputs in 2018		
Output	**Indicator**	**Target**
SER – ICT SECURITY: BETTER IT SECURITY SERVICES AND PARTIAL CENTRALISATION OF THE LISO ROLE		
9-1 IT Security governance and policy: a) Specification, documentation, review, approval and dissemination of the IT security standards with focus on VM and AM in line with the IAS audit report recommendations;	 a) Progress in the documentation, review, approval and dissemination of the IT security standards.	By end 2018 (unless stated otherwise) a) By Q2 2018.
b) Annual revision and update of corporate IT security strategy and monitoring its implementation;	b.1)Status updates to ISSB and DISB b.2)Preparation and adoption of the revised strategy.	b.1)Updates available at ISSB and DISB meetings b.2)Annual review of the strategy completed and updated version submitted to ISSB for adoption.
c) Support, inform, coordinate and report to the IT security governance bodies.	c) Effectiveness of information, support, reporting and coordination of IT Security governance	c) IT Security governance bodies effectively coordinated and informed.

	bodies (ISSB, CRMG, DISB…).	
9-2 Support of the implementation of the IT security policy on corporate level, through: a) Building a central LISO support function;	a) Progress in deployment and assessment of pilot service run by central team of IT Security Advisory Officers.	a) Assessment of pilot service completed.
b) Foster an information and knowledge sharing infosec community in line with the IAS audit report recommendation;	b) Progress in InfoSec community setup.	b) Information sessions organised to share IT security best practices.
c) Provision of assistance and coaching**.**	c) Performance of assistance and coaching for IT security policy, technical and regulatory aspects service.	c) Reduced response: 80% of answers to be provided within 5 working days.
9-3 IT security awareness raising Continuity of structured programme for cyber-security awareness raising.	Assessment of customer experience of Cyber Aware information sessions.	Participant feedback rating on Cyber Aware sessions of at least 75%.

DIGIT priority 5
Optimise DIGIT's delivery

As a fifth priority, DIGIT is committed to optimise its own delivery **through increasing its customer focus** (specific objective 10) and **better managing its resources** (specific objective 11).

Specific objective 10: Increased customer focus

In order to better meet the needs of its customers, DIGIT created, in the context of its reorganisation in 2017, a centralised CRM (Customer Relationship Management) function. The objective of this new function is to increase the customers' satisfaction by ensuring internal coordination within DIGIT for specific customers request, facilitate the right solution for the customers pursuant to their needs, managing escalation requests and last but not least by building a good relationship with customers, guide them and enable community discussions. In delivering value to the customers, the CRM function obviously also relies on an optimal set up and functioning of the service managers and service architects who will be put in place in DIGIT.

Relevant general objective: 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.

Specific objective 10: Increased customer focus		
Main outputs in 2018		
Output	**Indicator**	**Target**
10-1 Set up a centralised CRM function within DIGIT	Number of DGs covered by the central CRM.	Minimum service for all DGs by end of 2018, no overlap with other DIGIT units.
10-2 Create a customer knowledge base for DIGIT	High level understanding of our customers.	Very good understanding of the DGs we most commonly deal with by end 2018.

DIGIT priority 5
Optimise DIGIT's delivery

Specific objective 11: Optimised resources management

Building on the initiatives that have been launched over the last years, DIGIT will further set incremental steps to ensure it works efficiently, improving the scrutiny of its prioritisation of projects and achievements through the Priority Management Board, in order to focus on the right priorities with an optimised allocation of resources. The introduction of a consolidated cost model covering all services will further enhance transparency and efficiency in the charge back process.

In line with its reorganisation, DIGIT is also pursuing the establishment of a **new project delivery model** that will contribute to **optimise the re-use and sharing of technical skills and innovation**. In particular, DIGIT is further strengthening its new delivery model by **embedding competence centres** which will be the basis for project delivery across the European Commission. Each competence centre will focus on one of the various disciplines involved in software development (e.g. architecture, user interface development, testing etc.) and ensure common practices in that particular discipline. This will result in coherence between projects which will be staffed by resources coming from these centres. This process will also ensure the allocation of proper resources to new projects, underpinned by a capacity management function. The performance and quality of the various projects will be measured through KPIs and improved by a Quality Management process.

Relevant general objective: 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.

Specific objective 11: Optimised resources management		
Main outputs in 2018		
Output	**Indicator**	**Target**
11-1 Finalisation and implementation of a consolidated cost model as a basis for charge-back of services	a) Methodology and analytical data from the consolidated DIGIT cost model is agreed amongst all parties in DIGIT and DG BUDG; ready to be used for budget programming and charge-back.	a) Final version of consolidated cost model. Version agreed to become master data for the future and presented to the stakeholders. Timely communication for the yearly budget exercise.
	b) Cost model results enable valuing all WP services and are ready to be used for Service catalogue and charge-back services latest for	b) Alignment of WP services with the cost model and the Service catalogue. Documentation of chargeable services in

	the financial year 2019.	the Service catalogue. Endorsed pricing strategy.
11-2 Strengthen the new Digit Delivery Model: a) Create and document aligned competency pool processes and practices;	a) Number of processes documented (% of total number of actual processes – e.g. recruitment, training).	a) By mid-2018: 50%; By end 2018: 100%.
b) Staff new projects from the competency pools;	b) Number of new DIGIT.B projects staffed from pool instead of on ad-hoc basis.	b) 80% of new projects starting in 2018.
c) Establish supporting functions to ensure capacity to deliver with new delivery model: Project Management Office, Pool Capacity Management;	c.1) % of projects running under the new delivery model participating in consolidated reporting. c.2) Capacity management: time to have resources in project, from the moment the budget for a project is available to DIGIT.	c.1) 100%. c.2) For 80% of new projects the required resources are available within 2 weeks after the availability of budget for the project (95%: within 1 month).
d) Establish reporting of development-related KPIs;	d.1) Number of KPIs upon which reporting is done. d.2) Number of projects under reporting.	d.1) Q1: setup of instrumentation to measure at least 10 KPIs. d.2) Q2: pilot for 2 projects. End 2018: operational for 50% of ongoing projects in new delivery model.
e) Identify support efficiencies by consolidating service operations across domains, e.g. service desks, application	e) Indicator will be defined before submission of final MP.	e) Consolidate the service operations of eProcurement and eGrants as according to the gradual convergence of the

maintenance, start pilot implementations.		two platforms, focusing first in 2018 on SEDIA Organisation Registry and SEDIA Portal.

PART 2.
Organisational Management

This part presents the main outputs for 2018 linked to the relevant organisational objectives of the Strategic Plan covering the domains of human resource management; financial management: Internal control and Risk Management; information management[23] and external communication activities.

A. Human Resource Management

Although the new HR delivery model implemented in the Commission in 2017 is about to undergo a major revamping in 2018 that might also entail some changes in the operational and organisational responsibilities of the BC team, the AMC and the Corporate, DIGIT BC Team intends to step up from a typical administrative to a more strategic role in support of DIGIT Senior and Middle management.

Following the stabilisation of DIGIT's structure after the reorganisation of March 2017, in 2018 the BC Team will consolidate - via its presence in the HR Board - its role of strategic partner for human resources policy of the DG. Coupled with the activities of the Priority Management Board set-up in 2017, the HR board will be instrumental in optimising the DG's efforts toward efficiency gains in terms of HR allocation. The steering role of the HR Board will ensure that priorities are established and resources are either reallocated (monthly) to the main DIGIT actions and projects (SER, Digital Pole…) or set aside for cater for other obligations (taxation for redeployment, reimbursement of surcharges…).

Further, the BC Team will strengthen its advisory role to the Director-General and the Director for Strategy and Resources by drafting and supervising the implementation of a number of strategic HR papers (Digital Pole, L&D, Gender balance, etc.), while the current tasks of monitoring and supporting major HR actions at local and corporate level will be maintained (recruitment, appraisal, promotion, internal mobility, learning & development…).

``Particular focus will be devoted to the implementation of the **Synergies and Efficiencies Review in ICT** and more particularly in the domains that, in 2018, will undergo profound developments in terms of HR, like the Local Data Centre Consolidation and eProcurement.

Similarly, the gradual setting up of **Digital Pole in Luxembourg will require extensive HR work to build the critical mass of staff** and to consolidate the resources around the new Director for Digital Services.

In line with the Commission's initiative to ensure a better representation of women in management positions and overall talent management of staff, the BC team will **monitor the implementation of the Talent scouting scheme for women**, designed to this effect. Working in close cooperation with AMC, the pilot project will be launched from January 2018 onwards to allow a structured, early detection of women with high potential for management, to initiate guided discussions on career aspirations and to support applications of women to middle management positions.

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[23] "Information management" refers to a broader scope encompassing data, document/information and knowledge management.

Also, the BC team will **ensure coordination in the allocation of office space**. While in Brussels, following the launch of SER for logistics, responsibilities are gradually being taken over by OIB and the SPOC function, some coordination is still necessary to ensure consistency and monitoring. In Luxembourg, on the other hand, the allocation of office space is still under the GBI function and operates according to different rules and workflows. Considering the increasing office space needs (LDCC, Digital Pole, IT-SEC, on-boarding…) and limited available space, supervision is key to ensure effective cooperation with OIL.

Finally, more attention will be devoted to **optimising DIGIT as a workplace and promoting career development**. In coordination with local and corporate stakeholders and in line with initiatives already going on the technical (workplace of the future) and organisational level (well-being, fit@work) efforts will be made to ensure staff buy-in, engagement and well-being. A systematic approach to talent management will be implemented to ensure sound career development opportunities for DIGIT staff. In this context, special attention will be paid to the support and development of potential female managers.

Objective: The DG deploys effectively its resources in support of the delivery of the Commission's priorities and core business, has a competent and engaged workforce, which is driven by an effective and gender-balanced management and which can deploy its full potential within supportive and healthy working conditions.		
Main outputs in 2018:		
Output	**Indicator**	**Target**
HR-1 Ensuring a smooth delivery HR processes through continued consolidation of procedures within the new HR Delivery Model (in collaboration with AMCs and DG HR)	Regular bilateral meetings and exchanges with AMC Teams and DG HR clarifying roles and responsibilities in HR procedures. More regular contacts with Corporate services for the implementation of DIGIT HR specifics (Digital Pole, ICT…).	Full consolidation and repartition of HR procedures by Mid-2018.

HR-2 Increase of overall staff satisfaction & productivity	a) Staff Engagement: Continued implementation of the DIGIT Staff Survey 2016 Action Plan aimed at improving overall Staff Engagement Index (Staff Survey 2016: 63%).	a) 2018: 68% (+5%).
	b) Wellbeing: Support of DG HR in putting into practice the Fit@Work Strategy and Action Plan as well as continued wellbeing related actions specified in the DIGIT Staff Survey Action Plan 2016 with the aim of increasing the wellbeing index score (Staff Survey 2016: 56%).	b) 2018: 60% (+5%).
	c) Telework: Adapting and communicating DIGIT's teleworking guidelines to promote a liberal teleworking policy improving working condition satisfaction & productivity in the open space environment This included providing every member of staff with state of the art IT (laptop PC, Unified Communication System, etc.) that simplifies telework. This will be part of the broader DIGIT strategy of leading "Digital transformation" and being a role model for the "Workplace of the Future".	c) Guidelines to be published early 2018. Additional support/input may be needed from HR corporate to factor in the specific situation in Brussels (open space) and Luxembourg (lack of office space).

HR-3 Planning and execution of a comprehensive Learning & Development Plan	a) External Training Budget Optimal planning and execution of DIGIT's training needs.	a) Full coverage of identified learning needs of DIGIT staff by external training budget of DG HR in 2018.
	b) In close cooperation with the AMC, encourage and support career development opportunities of staff through career guidance, targeted coaching, workshops, mobility, etc. (Staff Survey 2016 "Current Job": 64% / "Professional Future": 33%).	b) 2018: 67% (+3%) 36% (+3%)
HR-4 Launching and implementation of a DIGIT HR Strategy aimed to sustain the delivery of DIGIT's priorities in the coming years	a) Digital Pole Luxembourg Implementation of strategic paper on planned execution of targets set out for DIGIT in setting up Digital Pole and execution of involved resource reallocations and promotive measures, in cooperation with DG HR.	a) Strategy to be implemented in the course of 2018.
	b) Female Representation in Middle Management Implementation of strategic paper outlining the measures promoting the identification of potential female talents and career development to middle management positions (2017: 3/5 female MM appointments).	b) Strategy implemented in the course of 2018. 2018: 5/5 female MM appointments.

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B. Financial Management: Internal control and Risk management

Objective 1: Effective and reliable internal control system giving the necessary guarantees concerning <u>the legality and the regularity</u> of the underlying transactions		
Main outputs in 2018:		
Output	**Indicator**	**Target**
Detection of error rate in terms of legality and regularity of underlying transactions	% of error rate detected.	Error rate below 2% threshold.

Objective 2: Effective and reliable internal control system in line with <u>sound financial management.</u>		
Main outputs in 2018:		
Output	**Indicator**	**Target**
Overall Costs of Controls	Overall costs of controls in %.	Maintain the average level as in Annual Activity Report 2017.
IC-1 Simplify financial circuits (see also 11-2 b)	a) Number of financial circuits reviewed. b) Availability of documentation.	a) Main financial circuits reviewed and related simplification proposals identified. b) Up-to-date documentation and an action plan with measures and their implementation.
IC-2 Revision and implementation of DIGIT's control strategy to adapt it to different levels of risk	Revised control strategy delivered and implemented.	Planned activities implemented.
IC-3 Ensure dynamic risk management in DIGIT: Ensure the coordination of risk management activities within the DG and ensure that risks are updated and documented in DIGIT's risk register.	Risk register up to date.	Major risks identified are timely reflected in the risk register. Risk register updated at least annually. Cost of controls remain stable or decrease, except is duly justified based on risk assessment and revised control strategy.

Objective 3: Minimisation of the risk of fraud through application of effective anti-fraud measures, integrated in all activities of the DG, based on the DG's anti-fraud strategy (AFS) aimed at the prevention, detection and reparation of fraud.		
Main outputs in 2018:		
Output	**Indicator**	**Target**
Implementation of an up-to-date anti-fraud strategy	% of implementation of actions planned for 2018 in the Anti-fraud strategy.	100%
Update of the AFS	Updated AFS.	Anti-fraud strategy updated and actions foreseen in the strategy timely implemented by 31/12/2018.

C. Information management aspects

Following the adoption of the new Commission corporate strategy for data, knowledge and information management in October 2016, and the creation of a new Information Management Steering Board, in 2017 DIGIT committed, together with 17 other DGs, to make Ares files visible ('Commission file reader'), as a way to apply and further improve the principle of information and knowledge sharing within the DG.

The document management function is very well established in DIGIT and the DG scores quite well when compared to other DGs, also taking into account the turn-over of relevant staff. In 2018 DIGIT will stay committed to deliver an optimal performance in this domain.

Objective: Information and knowledge in your DG is shared and reusable by other DGs. Important documents are registered, filed and retrievable		
Main outputs in 2018:		
Output	**Indicator**	**Target**
IM-1 Maintain effective document management system (mature procedure in DIGIT). If/where appropriate, review procedures in place with a view to optimise the process.	Overall compliance with the composite indicator published annually by the Secretariat General.	Compliance maintained.
IM-2 Implementation of 'Commission file reader' principle	Comply with "Commission File Reader" principle by ensuring visibility of DIGIT Ares files, in order to further improve information and knowledge sharing.	Guarantee visibility of DIGIT Ares files.

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D. External communication activities

A network for external communication activities has been established in 2017 in order to coordinate such projects in DIGIT, and in order to implement/enlarge DIGIT's contribution in this domain.

Objective: Citizens perceive that the EU is working to improve their lives and engage with the EU. They feel that their concerns are taken into consideration in European decision making and they know about their rights in the EU.		
Main outputs in 2018:		
Output	**Indicator**	**Target**
EC-1 Promotion of the ISA² programme: Constantly promoting the use of the programme's outcomes through conferences, workshops, meetings, presentations, the ISA² website, Twitter and LinkedIn account, electronic and paper publications, direct mailings to stakeholders using the ISA² communication strategy guiding instrument.	a) Number of events attended with an active contribution (i.e. presentation, speech, moderation or ISA² stand) such as high level conferences, interoperability related events and events that are of relevance to the individual policy areas and topics addressed by the programme.	a.1) At least 40 events attended with an active participation. a.2) ISA² events organised: • at least two major events organised p.a. • at least 5 web conferences organised.
EC–2 Connecting Europe Facilities - Provide interoperable solutions to Member States: a) Publication of news and relevant event around the CEF building blocks on the CEF Digital portal[24]; b) High-level event promoting the building blocks, with the objective of showcasing the use of CEF Building Blocks in different domains and application areas.	a) Number of Publications. b) Number of registered participants.	a) Minimum 3 publications per month. b) 200-300 registered participants.

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[24] The CEF Digital portal is the one-stop-shop for stakeholders to discover all they need to reuse the CEF building blocks. Ensuring relevant publications on the building blocks and related issues is fundamental to making the portal relevant.

EC–3 DIGITEC Conference: DIGIT and the IT departments of the European Parliament and the Council of EU are jointly organising the conference for the IT communities in the European institutions in 2018	• Number of speakers • Number of registered and actual participants • Number of web streaming viewers • Number of stands and demo sessions • Number of tweets and internal social media interactions • Number of participants taking the feedback survey	• 30 speakers • 1400 registered participants, 1200 actual participants • 1000 webstream viewers • 20 stands • 3000 tweets and social media interactions during the day • 10% of participants filling the feedback survey
EC–4 PM² Open Conference: a joint event sponsored by 5 major EU Institutions (European Commission, Council of the European Union, Committee of the Regions, European Central Bank, European External Action Service).	• n° of Conference participants • n° of web streaming views of the Conference/Trainings presentations • increase n° of new registration on the JoinUp platform	• 300 participants • 200 web stream viewers • 100 new registrations
EC–5 EU FOSSA – Free and Open Source Software Auditing: DIGIT is implementing this programme and will launch several communication campaigns and one big event.	a.1) Coverage of the programme in specialist journals a.2) Event organised a.3) Sufficient advertising of the bug bounties	a.1) Coverage in at least 5 major online publications per quarter of activity a.2) An event, targeting one of the open source communities organised with participation of the community's key contributors a.3) Active participation of researchers in the bug bounties.

For external communication overall spending:

Annual communication spending (in €):		
	Baseline (2017)	**Estimated commitments (2018)**
EC-1: ISA² Programme	630.000	1Mio
EC−2: Connecting Europe Facilities	Covered by CNECT Operational Budget for CEF Appropriations	Covered by CNECT Operational Budget for CEF Appropriations
EC−3: DIGITEC Conference	0	60.000
EC−4: PM² Open Conference	80k (+ 85k contribution from other EU Institutions)	50.000
EC−5: EU FOSSA	0	750.000
Total:	795.000	1.860.000

E. Example(s) of initiatives to improve economy and efficiency of financial and non-financial activities of the DG

For details please refer to part A. Human Resource Management