EUROPEAN COMMISSION
DIRECTORATE-GENERAL INFORMATICS

Digital Workplace Strategy

1. THE DIGITAL WORKPLACE IN THE EUROPEAN COMMISSION CONTEXT

The conception and deployment of the workplace is among the key strategic activities for the European Commission in the years to come. It links to the Mission letter from President Juncker to Vice President Georgieva of the 1st November 2014 in delivering the technical means to *overcome organisational silos* and to enable a *more collaborative way of working*. The aim is to provide EC staff with the best combination of tools, physical framework and working methods, to enter in the 2020s as a modern public administration able to effectively support the achievement of the priorities of the European Commission.

The Digital Workplace initiative is also an important part of the ICT chapter of the 2016 **Synergies and Efficiency Review**.

2. VISION

The Digital Workplace initiative 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 type of users, new behaviours and new technologies.

3. OBJECTIVES

Although IT is a key enabler for the Digital Workplace, the benefits of the initiative are not for IT itself but for the Institution as a whole. By implementing the Digital Workplace initiative in the Commission, we aim to realise the following objectives:

– **Increase staff engagement. Engage employees and raise motivation through an effective, efficient digital workplace**. Aspects like improved collaboration and knowledge sharing, speed of communication and accessing the right information at the right moment, working efficiently from the best suitable place, time saved by not commuting, etc. will fundamentally increase staff engagement. As international studies have proven, a modern

and efficient digital workplace improves staff morale. This will allow our organisation to improve its output capacity and reaction time.

– **Increase staff productivity. Allow productivity improvements by providing the most suitable and effective digital workplace to each staff member**. While it is too soon to evaluate the positive impact at this stage, it is important to signal that the overall gains will also depend on the degree to which our organisation is able to shift its work culture in parallel, to exploit the maximum capability of the IT tools. Therefore the progress made on the digital aspects of the workplace should not be dissociated from the HR aspects. Both aspects tackled in synergy will allow reaping the maximum benefits of the technology evolution.

– **Enable a more modern and efficient office space design**. New digital workplace tools support a concept in which the workplace is becoming more and more location independent. The traditional office space design used within the European Commission will therefore shift to a more modern conception which supports new ways of working together, fostering staff collaboration and at the same time allowing cost-savings in building expenditure.

– **Deploy a 'Secure-By-Design'** infrastructure. As cyber threats evolve in sophistication, the current infrastructure underpinning the Digital Workplace is becoming increasingly exposed to attacks. Advance security measures will be embedded within the design of the Digital Workplace components, achieving a quantum leap in our security posture.

These objectives have a corporate dimension and are fully in line with the Synergies & Efficiencies Review.

4. THE DIGITAL WORKPLACE INITIATIVE AS A CONTINUOUS TRANSFORMATION

There are four paradigm shifts happening in the IT world today, which influence the digital workplace.

The first is about *mobility*; it implies that people connect with others and with data *anywhere, anytime,* and *on any device.*

The second is about *data itself*; people access ever larger repositories of *data*, with sophisticated *search and data analytic tools*. The speed and relevance with which data are collected and the way information is enriched through the combination of separated and large datasets are essential elements.

The third is about *Cloud*, which become increasingly present in the Digital Workplace. The bulk of the Digital Workplace tools are still available today either on Data Centres or on the Cloud. However, there is a significant shift toward Cloud in industry, and some suppliers have already abandoned Data-Centre product lines altogether. Our Institution has to be prepared for this shift to continue to benefit from the state-of-the-art services in all categories including IT Security. The evolution to the Cloud should be gradual and integrating Data-Centre and Cloud services in a *Hybrid* model.

Cloud by itself does not reduce IT infrastructure cost. However, cloud computing provides access to a broader service catalogue with a variety of levels of service. And that means we can better optimise the value for money in our Institution with cloud computing. As the demand for IT infrastructure capabilities in the Commission annually grows by 20%, such a continuous optimisation is a prerequisite for budgetary sustainability.

The fourth paradigm shift is about *collaboration*; or methods and tools allowing people to connect in a network manner – and *co-create* the information. Collaboration allows *faster creation and dissemination of knowledge*.

These paradigmatic shifts have to be integrated in our vision of the digital workplace. They also happen in successive waves of new technologies evolving at an increasing rate. In order to keep up and benefit from these fast evolutions, our way to deliver the tools and infrastructure related to the digital workplace will need to be adapted.

First, since the staff should be able to work anywhere and anytime, the digital workplace tools must become *location-independent*. The physical workplace will progressively become a virtual workplace. This implies investments in the network and in the security infrastructure, with a shift to mobile devices to replace the desktop equipment.

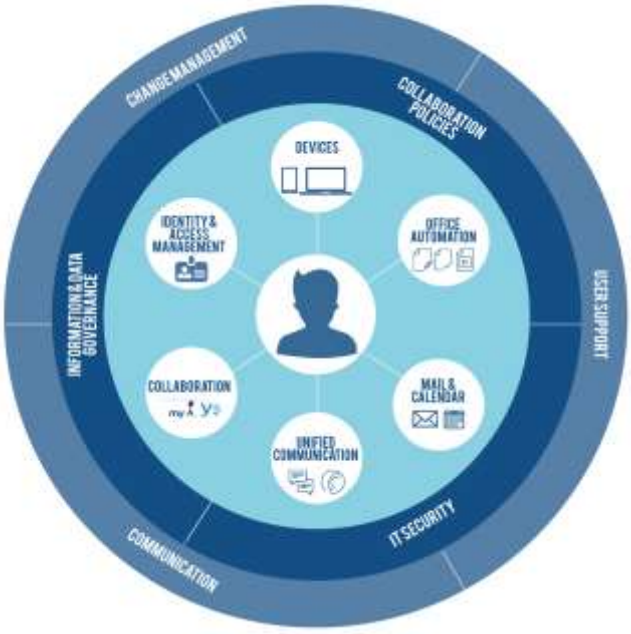
Second, leveraging on big data requires access to data repositories, which are by far exceeding the size and computing power of our current data centre resources. Also, there is a trend on the market as technology leaders are increasingly enriching their offerings on Cloud as a service delivery model. The Digital Workplace initiative will systematically optimise the migration of services and resources on the Cloud to enrich the services to end-users, while seeking potential cost reductions.

Third, the shift towards the *collaboration* paradigm implies enriching DIGIT's catalogue with an array of new services. Indeed, the current digital workplace is mostly based on tools for the edition of documents and emails; the collaboration paradigm ranges from instant messaging and social network to video conferencing and tools allowing the co-authorship and edition of content.

The digital workplace is something that exists today, that evolves as technology and user behaviours do and that will keep transforming along the years. For this reason, the digital workplace initiative is to be seen as a *continuous transformation.*

5. THE DIGITAL WORKPLACE FRAMEWORK

The following illustration depicts the conceptual framework underpinning the Digital Workplace initiative in the Commission. Staff is at the centre, with a particular focus on the excellence of user experience. A staff member should be able to connect anywhere and at any time, through simple and secure authentication mechanism, on a variety of mobile devices to a number of corporate services. The data will be stored on a Hybrid Cloud model, ranging from on premise (European Commission Datacentres) to public Clouds depending on the classification of the data.



The 6 strands of the Digital Workplace initiative are:

1. A balanced mix of **Mobile Devices**, either Corporate or BYOD, allowing connection from anywhere and at any time. There are constraints about using corporate tools on private devices and vice-versa, but they may be resolved with a good compromise between usability and security;

2. **Office Automation** comprising supported operating systems, word processors, spreadsheets, presentation authoring tools, access to files, etc. An architecture enabling hybrid services become progressively more important especially when the mobile dimension perspective is incorporated;

3. **Mail & Calendaring,** including the central role of e-mail and its tight integration with calendar tools as a way to send messages, share information, manage time and meetings;

4. **Unified Communication** encompasses different sources of real and near-real time communication, which include Video Conferencing and the future of telephony (telephony becomes an App, the classical telephone is replaced by the single mobile device);

5. **Collaboration and social networking,** covering the main aspects of collaboration (from document to tasks), communities, social networking, with special attention on their right availability, security and integration in mobile platforms. Fast access to the relevant information is an essential in the Digital Workplace. Therefore **Information Management & Corporate Search,** as very strong integration elements, will be part of this component;

6. **Integration and Identity & Access Management.** The future Digital Workplace will be based on **a Hybrid Platform** with a combination of on premise and cloud-based solutions to take the maximum benefit of technology development and to allow mobility. A Hybrid Platform is an infrastructure partially built on-premises and partially in a public/private cloud linked by a common User Identity schema. Its main purpose is to provide users with a transparent services consumption, regardless of the origin of such services. It provides the glue

between the different services of the Digital Workplace from a user centric perspective.

These six complementary strands dovetail and are necessary to fulfil the goal of the Digital Workplace. The Hybrid Platform is the glue which will allow users to securely access and consume services anywhere, at any time, regardless of their origin (on premise or cloud). These services, accessed and consumed on mobile devices, cover collaboration, file sharing, social networking, mail, calendaring, and office automation.

However, these six strands for which DIGIT takes the ownership are not sufficient by themselves in order to bring real benefits. They must be underpinned by corporate-wide policies defining the "rule book" for the digital workplace. These policies concern information & data governance, collaboration policies and IT security.

In order to facilitate adoption, the Digital Workplace Strategy initiative must be supported by communication, change management and user support processes.

6. A BALANCED APPROACH FOR OPPOSING FORCES

Implementing the Digial Workplace will also require finding a proper balance between opposing forces.

- **Freedom versus security**. Constraining users in what they can do reduces IT security risks, but at the same time too many constraints reduce productivity.

- **Simplicity versus choice.** One size does not fit all in a large administration such as the Commission, even if from an IT operations point of view simplicity facilitates the management of a corporate IT environment, reducing costs.

- **Corporate versus BYOx.** The boundaries between work and private life are fading. This does not only apply to staff's working time, but also to devices and applications staff are using. Telework is to a large extent done from private devices at home. Few staff members have a corporate smartphone but virtually everyone has one or more private devices with private apps on which they would like to access corporate data and information more easily. The Commission has had for several years a "Bring Your Own Device" policy, but it remains a challenge to define which corporate tools the institution should offer its own employees and which private tools it should tolerate or even actively support in the corporate workplace.

- **Bundle versus fragmented.** The market trends for Digital Workplace tools also show opposing forces. On the one hand, a limited number of big players are focusing on bundles of very well integrated products covering virtually all aspects of the Digital Workplace. On the other hand, many innovative apps from smaller players are challengers in the market for specific aspects of the Digital Workplace. This strategy aims at offering a balanced approach to fully benefit from the advantages for end-users of both views, to maximise integration and user-experience but limit any over-dependency on a single supplier.

7. PRINCIPLES

The implementation of the Digital Workplace initiative is underpinned by the following principles. These principles also help to find the proper balance for the above mentioned opposing forces.

- **User centricity**. In the future digital workplace, the user is at the centre. The most important asset of any organisation is its people, so any system must be designed with this purpose in mind. Even IT security can benefit from a user centric approach, as imposing too many constraints leads people to circumventing them, which in the end has a counterproductive effect on security.

- **Integration**. Integration is key. The digital workplace is a collection of tools, systems, platforms, interfaces, programs, etc. that must be seamlessly integrated to allow for a smooth and efficient user experience. Designed and non-designed components must be selected always taking into account this perspective.

- **Openness**. It fosters the participation of third parties and invigorates the development of new products and services in the digital workplace. On top of that it helps to meet specific requirements of designed digital workplaces.

- **Standardisation**. It allows the possibility of integrating different building blocks from different sources and a fair competition between vendors. Standards drive cost reductions, low maintenance costs, fast learning by users etc.

- **Flexibility**. It must be flexible enough to allow the construction of different "views" of the digital workplace for different type of users, from the simplest to the most complex ones, with the same building blocks, and with the possibility of replacing or adding new ones easily.

- **Transparency**. In the way components are designed, selected and sourced.

- **Speed**. In the future digital workplace, there will be no time anymore for long and heavy product management cycles. The life cycle of new products will be much shorter, because that is the way users expect it to be. The process for introducing new elements in the organisations must be fast enough to cope with user expectations.

8. SYNERGIES & EFFICIENCIES

The Digital Workplace initiative aims ultimately at productivity gains. These productivity gains will come from different sources:

- **Staff engagement and productivity**. The delivery of a state-of-the-art workplace IT environment allowing staff to access data and work anywhere and at any time will increase their engagement and productivity. Mobility will support the balance between professional and private life inter alia by increasing teleworking and allowing for more working time flexibility.

- **Office Space**. The concept of the workplace is shifting to become *location independent*. In modern office spaces, there is no assigned desk and staff is 'hot-desking'. Such a modern office concept can only work in practice if the digital tools provided to staff enable location independence for working: at home, on mission, in a meeting room, in the office. The Digital Workplace initiative allows therefore our institution to roll-out optimised office space policies and to reduce costs.

- **Rapid access to relevant information**. The Digital Workplace together with the development of Information and Data Management and Search will deliver a faster and more relevant access to the information needed.

- **Helping to break silos**. The use of collaboration tools & social networking will allow the fast creation of focussed groups across the natural boundaries within the institution and help the faster and more relevant response of our organisation to situations and crises

- **Better use of shadow time**. The possibility to work anytime and from anywhere will allow staff to use shadow time (such as spent in transportation) and increase output.

- **Prepare for the younger generation of staff**. Younger staff are digital natives. They are much more connected and react in real-time. The Digital Workplace initiative will meet their expectations and will allow them to contribute to the work of our institution with the tools of their culture.

These aspects altogether are expected to produce an increase in the productivity of our organisation. Studies show that a modern Digital Workplace may enable an increase of productivity of up to 10%. However, maximising the benefits of the Digital Workplace is not only a question of technology. The optimal use of tools is also dependent upon work culture and HR policies (such as teleworking, use of office space and so on). Leveraging the Digital Workplace initiative potential will therefore require a tight collaboration between many Commission services.

The business case for the Digital Workplace is to realise important benefits in staff productivity together with the reduction of costs in office space combined with a significant increase in IT Security.

The six components of the Digital Workplace[1] are necessary to provide the maximum benefits. However, from the perspective of their financing, they should be approached differently, and they fall in three categories:

1. **The components which need to be considered as mandatory, for product obsolescence, IT Security reasons or both**. This is the case for **Office Automation, Mail and Unified Communication**. Indeed, upgrading the current office automation platform is unavoidable for imperative security reasons. Additionally, the current platform will soon reach its end of support. The same also applies for Mail. Email is by far the most important access point with the Internet and therefore the penetration vector for most security threats.

[1] 1) Devices; 2) Office Automation; 3) Mail; 4) Unified Communication; 5) Collaboration; 6) Integration and Identity & Access Management

Part of the Mail component is also to reinforce Security by Advanced Security Threat Detection. The Unified Communication component will replace our ageing telephony by modern technology. It will help generalise the use of new professional services such as instant messaging and video-conferencing. In addition to being mandatory, these three components are also expected to bring about significant improvement in User Experience and hence in productivity.

2. **The components for which the investment can be modulated.** This is the case for **Devices** and **Collaboration**. Only part of the staff really benefits from mobile devices today. The replacement of classical desktops by mobile devices should happen in synchronisation with the evolution of HR and workplace policies. Collaboration is still a new but promising domain. Benefits in collaboration depend on the evolution of the work culture. For these two components, it is proposed to start deployment on a limited scale with services that will clearly benefit from them, and under the supervision of the governance bodies in place

3. The **Integration & IAM** component belongs partly to the first and second categories, as it is strongly linked to IT Security, but also depends to which extent we want to integrate external cloud components in our catalogue**.** However, as the market is shifting increasingly from on premise towards cloud-based solutions this component will gradually become unavoidable.

9. EVALUATION

The progress and impact of the deployment of the Digital Workplace should be evaluated on a yearly basis. Aspect such as Staff Engagement, Productivity, and Collaboration will be assessed by DIGIT. This information will allow the relevant governance bodies to steer the initiative.

10. GOVERNANCE

While DIGIT will lead the *digital* workplace initiative, it requires a strong cooperation between Commission services (HR, OIB, OIL, DIGIT, BUDG and SG) as there is a close interdependency between digital tools, the future physical office space design and the Commission's HR policy and working methods. In June 2016 DIGIT created a steering committee with HR, OIB and OIL, BUDG and SG in order to ensure the overall coherence of the Workplace Strategy and implementation and in order to achieve the expected outcomes.

11. CONCLUSION

The evolution towards the future Digital Workplace is ***required*** for improving our IT security posture and avoiding product obsolescence. It is also ***necessary*** to help our Institution overcome the boundaries of its own internal silos and make it faster, more responsive and more relevant in our modern political context. Finally it is also an ***opportunity*** for our institution to become an example of a modern public, connected and efficient Public Administration.