European Commission

The Digital Pole in Luxembourg

Executive Statement

Prepared jointly by
DG DIGIT and DG CONNECT

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By the European Commission, Directorate-General for Communication Networks, Content and Technology.

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1. Context

The purpose of this paper is to set out the vision for the Digital Pole in Luxembourg. The creation of a Digital Pole is an opportunity for the Commission to develop its own "digital hub" in Luxembourg and develop cooperation with the Luxembourgish authorities capitalizing on the initiatives already taken by the local government.

The digital future will be highly transformative, both disrupting existing and creating new jobs, business models, and ways of living. Many existing boundaries and silos will be overturned. Preparing for a transformative future needs us to join forces and build partnerships. Therefore cooperation must be the DNA of the Digital Pole. Cooperation inside the Commission, with other institutions such as EIB, with economic and social life in Luxembourg, with partners across Europe.

Digital is the future for Europe. Our ambition is that the Digital Pole will

- become a frontrunner in shaping that future for all Europeans;
- focus on policy and solutions to improve people's lives and deliver public services digitally;
- drive forward policy, investment and take-up in big data, high-speed networking and supercomputing; and
- promote synergies in the Commission and with the Luxembourg digital ecosystem.

2. What will the Digital Pole deliver?

With its focus on people the Digital Pole will be dealing with policies and innovative solutions for digitizing health, wellbeing and ageing, public services, education, language and culture. The Digital Pole will be a policy, service and investment facility for the EC data centres, a European Open Data Portal and data analytics; for communications networks for scientists and public administrations;.

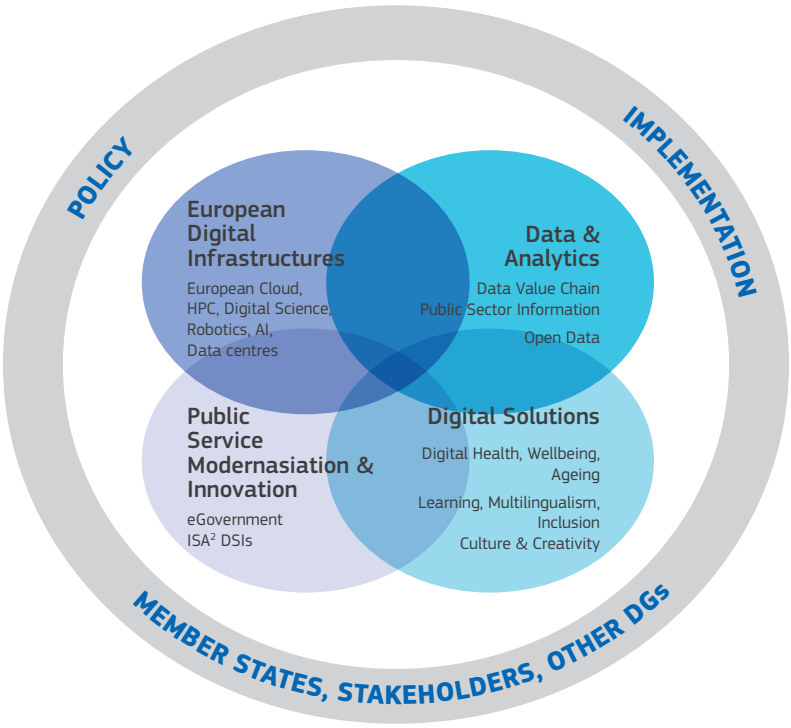
The Digital Pole will have both a leadership role in policy and in implementation and be a service centre for the entire EU. It has the ambition to offer an open meeting place for reflection on EU digital policy shaping in its focus areas. It will showcase 'touch and feel' digital solutions. The Digital Pole will provide operational digital service infrastructure support to Member States and data analytics expertise together with expert DGs such as JRC inside the Commission.

The Digital Pole will also seek to stimulate investment across Europe in the digital future and develop an investment 'guichet' with partners for its focal areas.

3. Priority areas

The Digital Pole will become a European Commission centre of excellence for providing an important contribution to the definition and practical delivery of the Digital Single Market strategy. The priority areas will be:

1. **European digital infrastructures** and technologies incl. super-computing, quantum-computing, high-speed networks, data centres, robotics.
2. Building the **European Data Economy**, including Open Data and Data Analytics.
3. **Public Service innovation and modernisation**, including eGovernment, interoperability, digital trust.
4. **Digital Solutions** for:
    - health, ageing and wellbeing
    - learning, multi-lingualism and inclusion
    - culture and creativity.



In the future, the Digital Pole will act as an incubator of digital innovation both in the Luxembourg environment and across Europe. In the local economy, complementary services (physical and telecommunication facilities, training, access to specialist funding and investment and advisory services) possibly provided by Luxembourg will permit the Digital Pole to attain critical mass. In addition, clients across Europe can use the Digital Pole to access services such as secure cloud and data science infrastructures or public service modernisation capacities.

Over time with the transfer of posts to Luxembourg the Digital Pole will be part of an innovation-driven digital ecosystem to

- embrace a wider range of communities (beyond research and public administration) and sectors (finance, pharma, transport, energy, etc.) and thus stimulate multi-disciplinary and cross-sector fertilisation;
- promote and leverage new development paradigms (co-design / co-creation) and partnerships between EU institutions and Member States (MS) on complex/demanding societal challenges (migration crisis, managing demographic trends, continuous life training, digital4development, multicultural/multi-ethnical integration, etc.);
- nurture new business models to attract and stimulate innovative entrepreneurs (from both the private and public sector), in particular SMEs, coupled with efforts to move from "start-up" to "scale-up"[1];
- promote sharing of experience and experiments between public sector bodies and private sectors on innovative, agile and flexible public procurement models; and
- profile itself and cooperate globally, thus taking the Digital Single Market as the boost to foster and enable EU economic, social and scientific growth.

i. European Digital Infrastructures

1. Science Cloud / High Performance Computing

Building on the Commission's expertise and capabilities, the Digital Pole will act as a research and innovation explorer and promoter to identify, develop and translate technological progress in workable solutions for European science, public administrations and industry and citizens around high performance computing, data storage, and high speed networking for connecting these. The Commission is cooperating with Luxembourg on an Important Project of Common European Interest on HPC and Big Data Enabled Applications (IPCEI-HPC-BDA).

2. Big Data Infrastructures

The transfer of activities in Digital Science and HPC will support digital innovation in HPC-enabled big data applications.

3. Consolidation of the Commission's infrastructure capacity in Luxembourg

As part of the Digital Pole, the Commission will consolidate its data and telecom centre capabilities in Luxembourg.

ii. Big data, Data Analytics and Business Intelligence

1. Data Value Chain

The Commission aims to promote the development of the data ecosystem, foster the key framework conditions needed for a data economy and improve the attractiveness of and confidence in digital products and services in Europe. This includes support for open data policies through the Public Sector Information Directive and the Public Open Data Portal DSI as well as support to research and innovation in data analytics, data applications and skills.

Big data and data analytics are also enabling technologies for the digital solutions. Therefore the close proximity between the teams in charge of big data and data analytics, and digital solutions within the Digital Pole will create a cross synergy effect.

1 http://scaleupeuropemanifesto.eu

2. Business Intelligence

The Digital Pole will act as a Luxembourg based centre of competence for supporting business intelligence, which is becoming more and more a key element in digital organisations to support a wide range of decisions ranging from operational to strategic.

iii. Public Service Innovation and Modernisation

1. eGovernment, eIDAS, ISA, CEF DSIs

The Commission will provide policy leadership in eGovernment. In this thematic priority for the Digital Pole, different Commission services will co-operate to provide solutions, components and platforms and innovation support of the public service aspects of the Digital Union. These services will benefit from the infrastructure (network, datacentres, hybrid cloud) and big data (as enabling technologies) components of the Digital Pole.

iv. Digital Solutions

This thematic priority addresses human-centric digital support for a triple win: advancement of individual living and participation, economic opportunities, and sound public finances.

1. eHealth, Active Ageing and Wellbeing

Building on the capabilities of different Commission services, this thematic priority will provide digital policy and research and innovation leadership, focusing on the following lines:

1. Large-scale innovation in e-health and e-care/independent living systems, including interoperability
2. Promoting integration and validation of emerging technologies (HPC, simulation and modelling, IoT, 5G, blockchain) in innovative solutions and developing related policy
3. Exploring new approaches and promoting new business models related to digital innovation in health and ageing such as mobile health, smart living
4. Stimulating and guiding digital policy (e.g. privacy, liability) and technology development driven by the needs of the health, ageing and wellbeing fields
5. Cybersecurity and health, supporting policy implementation as well as further development and innovation.

2. Learning, Multi-lingualism, and Inclusion

The objective of this thematic area is to empower every European, irrespective of her/his age, language, health conditions and education level, to benefit from the Digital Single Market. Activities cover

1. web accessibility to ensure that all public sector websites in the EU become easier to perceive, understand, navigate, and interact with by all European citizens, and in particular by those with disabilities;
2. a better internet for kids policy to allow children to safely access the internet;
3. customising education and training through ICT; and
4. supporting research and innovation in language technologies as well as the Automated Translation platform (CEF.AT) which will offer multilingual capacities for public services.

3. Culture & Creativity

Solutions in this area contribute to promoting creativity and cultural heritage as essential assets for the economy and society.

4. Identity and Outreach

The Digital Pole should have a clear identity and should provide a clear added value to its host situation in Luxembourg. In return practical support from the Luxembourg authorities will be sought in respect of facilities, sites and the development the IT specific labour market in Luxembourg.

The involvement of other potential partners based in Luxembourg such as the University and the EIB should be sought in order to give more reach than a purely internal Commission exercise. The method of establishing such partnerships should be carefully assessed so as to provide a lean and efficient cooperation mechanism.

The creation of the Commission Digital Pole in Luxembourg should be seen by stakeholders and Member States as a political message that the Commission wants to increase the impact of its policies in the Member States and – at the same time – lead by example as a public sector administration in Europe.