Call for a “European Data-Gateway Platforms Strategy” as part of “Shaping Europe's Digital Future”

by

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January 2021

This non-paper puts focus on what we see as the missing pillar in Shaping Europe’s Digital Future. It completes the vision in and contributes to achieving the key goals of the several strategies launched by the European Commission on the digital economy, most notably the European Strategy for Data, the communication Shaping Europe’s Digital Future, and the White Paper on Artificial Intelligence.

All Member States with digital initiatives committed with the European Digital Strategy will also benefit from the proposed approach herein, which ultimately contributes to the goal of making Europe a competitive and autonomous player in the global digital economy.

The EU is missing out on critical opportunities

Europe’s digital sovereignty and global competitiveness depend on strong internal and external connectivity. Leveraging both dimensions is a prerequisite for the EU to become "the most attractive, most secure and most dynamic data-agile economy in the world”.

It is of critical importance that European security and prosperity is not undermined by high-risk owners or suppliers. Recalling the European Council Conclusions from October 2, 2020: “To be digitally sovereign, the EU must build a truly digital single market, reinforce its ability to define its own rules, to make autonomous technological choices, and to develop and deploy strategic digital capacities and infrastructure. At the international level, the EU will leverage its tools and regulatory powers to help shape global rules and standards. The EU will remain open to all companies complying with European rules and standards. Digital development must safeguard our values, fundamental rights and security, and be socially balanced.”

The EU has the potential to become a World-class data hub since it has one of the best legislative frameworks and a solid infrastructure. However, the EU Shaping Europe’s Digital Future strategy largely overlooks the external dimension and does not place the appropriate emphasis on the infrastructure required to ensure that the services provided by such a hub can also be rendered elsewhere. Under these circumstances, Europe's
potential to become a global data manager and digital services provider to the rest of the World risks remaining largely untapped.

Our call to action aims to address the following challenges:

- **Taking a stand in an expanding market**: currently, four market players alone account for 95% of the World market of data storage and processing/management services. None of these operators have their headquarters in the EU. Enhancing international connectivity is a pre-condition for the EU and EU-based companies to become more competitive in this market.

- **Increasing EU connectivity with the rest of the world**: cables will feed digital data hubs, but they also provide wide benefits to local sectors, including jobs and innovative and high-value products and services.

- **Strengthening the EU Global influence**: global submarine cables infrastructures have so far been heavily concentrated in the Northern Hemisphere. To attain European Digital Leadership, it will be decisive to ensure new, secure, and resilient submarine cable routes linking the EU to the Southern Hemisphere, as well as Africa and Asia. In this perspective, turning the outermost regions and the EU overseas countries and territories into strategic relays must be considered. As a result, we would be able to offer EU digital services on a global scale and generate mutually beneficial developments in our digital ecosystems, in line with the initiatives in the Europe’s 2030 Agenda for sustainable development (e.g. EU-Brazil digital economy dialogue, EU-Africa cooperation, EU-ASEAN digital economy and connectivity cooperation).

- **Strengthening the European space and satellite industry**: Satellites provide an important international link between the EU and the rest of the world, especially for island nations and land-locked countries. Today, satellite networks carry zettabytes of data across continents. Europe is fortunate to be home to world-leading satellite operators and manufacturers. To ensure a leading role in next generation of the global Internet and avoid US or non-EU domination of related emerging sectors such as IoT, automation and digitalisation as well as reinforce their existing near-monopolies in internet/cloud-related activities such as e-commerce, Europe could, by leveraging the strength of its satellite operators to create a global satellite broadband network, engineer the opportunity to reshape the landscape concerning who owns the data generated by 600 million European consumers and beyond.

**International connectivity is an indispensable pillar of the EU’s digital leadership**
In the medium to long term, the EU production and demand of data will be far from sufficient to achieve the desired leading role in the global data-driven digital economy and to guarantee EU digital sovereignty. Promoting and building the EU’s international connectivity capabilities will bring in more data to develop strategic technologies, allow us to export digital services, and secure the private and public data of EU citizens. It will furthermore contribute to promoting our regulatory models worldwide.

- **International connectivity** supports and accelerates the competitive digitalisation of the EU economy. It increases productivity, provides unique business opportunities, ensures equal access to fast internet connection throughout Europe’s regions, and ultimately benefits consumers. It completes internal connectivity, which is crucial to ensure that data exchanged through international means, such as satellite and cables, can then travel cross-border corridors within the EU: no Member State should be left behind when deploying the EU digital strategy.

- Expanding direct connectivity links with other continents/markets is paramount to ensure the competitiveness and resilience of a **European Federated Cloud**. Indeed, increasing the capacity to access diverse data sources sustains the EU's position as a global data manager and provider of high-quality digital services and capabilities (e.g. in Artificial Intelligence, HPC, QCI, management of high-value datasets). This is our understanding of what should be the EU’s envisaged digital sovereignty and self-determination.

- Developing the EU’s **capacity to store and process data** requires open digital ecosystems\(^1\) of users and providers where data can be made available, securely collated and shared, and based on the European approach to data privacy. The development of such an ecosystem requires appropriate infrastructure framework conditions, operated under the EU regulatory framework or others ensuring equivalent data integrity standards.

**Enhancing data economy through international connectivity**

As we see it, international cable gateways can be clustered into three platforms:

- the EU-Atlantic Data Gateway Platform;
- the EU-Mediterranean Data Gateway Platform;
- and the EU-North Sea Data Gateway Platform

Under its Presidency of the Council of the EU, during the first half of 2021, Portugal intends to give its contribution to the EU-Atlantic Data Gateway Platform, with the

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\(^1\) Open Access to CLSs (Cable Landing Stations)
inauguration of the new Ellalink cable\(^2\), which shall connect Europe (through Sines, Portugal) to Latin America (through Fortaleza, in Brazil). More initiatives of this kind would be most welcome to ensure that international cables linking the EU to other parts of the world have the speed and the capacity to keep up with increasing requirements in terms of data flows and expectations in terms of international trade volumes in digital services.

In the short- to medium term, leading European satellite operators such as SES and Hispasat are active in Latin America and could extend the reach and benefits of such a cable yet further by providing access into remote areas where cable will not be able to reach and where terrestrial radio-based infrastructure may not be economically viable. Satellite technology is also key to enhancing the reliability and resilience of terrestrial/submarine networks in case of service interruption.

**Complementarity with ongoing initiatives by the Commission**

An increased focus on international connectivity through submarine cables, satellite communications and potentially other solutions fits the vision and the key goals of several strategies launched by the European Commission on the digital economy, most notably:

- the *Shaping Europe’s Digital Future* Communication, in its call for a strong digital presence in the EU’s enlargement, neighborhood and development policies;
- the *European Strategy for Data*, in its intention to develop common European data spaces and interconnecting cloud infrastructures;
- The *Space Strategy for Europe*, in its call to encouraging the uptake of space services and data including satellite communications and in turn support the competitiveness of the European space industry;
- the *White Paper on Artificial Intelligence*, in its aim to identify the many benefits of AI for citizens, companies, and society as a whole, while ensuring AI is human-centric, ethical, trustworthy, sustainable and respects fundamental rights and values;
- the *EU Security Union Strategy* Communication, in its acknowledgement of the need to be prepared for possible future crises threatening the security, stability and resilience of the internet, and in turn calling for a legislative framework to address the increased interconnectedness and interdependency, with robust critical infrastructure protection and resilience measures;
- the EuroQCI cooperation framework for exploring the development of a certified secure end-to-end Quantum Communication Infrastructure that will be essential for Europe’s long-term prosperity and security.

\(^2\) Integrated in the BELLA Program with the integration of the GEANT network
This proposal contributes to the EU’s Global Digital Cooperation Strategy and it aims to enhance the EU’s role as a global digital player through cooperation with new regions and markets.

This proposal also contributes to the goals set by Europe’s commitment to the 2030 Agenda for Sustainable Development, where telecommunications/ICTs enable and accelerate social, economic and environmentally sustainable growth and development for everyone, including the uptake of green ICT in partner countries and regions.

All Member States with digital initiatives embodying the goals and approach of the European Digital Strategy must benefit from the focus on this missing pillar; in turn, it must assist the digital sectors of those Member States in their contribution to the overall goal of making Europe a competitive player in the global digital economy.

**Conclusion**

The elements detailed above show that the overall European Digital Strategy can only be successful in a context of isolation. If the Strategy is to be effective and European digital goods and services (namely data storage and processing) are to be rendered around the World, the international connectivity pillar of the European Digital Strategy needs to be duly valued.

The starting point is to recognise that the current overall picture we have of the status of submarine cables connecting the EU to third countries and continents (and also among and within the Member States) is still a patchy one. Indeed, the elements present provide only a glimpse of the current situation and do not replace a much-needed thorough analysis of today’s international cable infrastructure (e.g. in terms of their capacity, speed, and lifespan) as well as of current and future needs in terms of data exchange.

Furthermore, accomplishing the objectives of the European Digital Strategy, such as:

i. promoting the competitiveness and openness of EU data services to third countries;
ii. ensuring appropriate levels of resilience, data protection and integrity;
iii. and consolidating the internal market for data and digital services;

requires that:

i. risks such as having international connectivity collapse (namely due to several current cables reaching their lifespan or to eventual interruptions in the provision of the services cables currently provide) be minimized;
ii. resilience and reliability and extended service penetration are ensured thanks to satellite technology;
iii. that challenges regarding their redevelopment or replacement are duly addressed
at EU level whenever appropriate;
iv. challenges regarding the development of new international connectivity infrastructures, including cloud, are duly addressed at EU level;
v. and that eventual competition issues (namely an imbalanced reliance on a specific type of service provider and/or the vertical bundling of data exchange services with other digital services) be avoided.

Call to Action

Against this background, the subscribing Member States call on the Commission to:

- Undertake a full assessment of the current submarine cable systems in the EU;
- Identify, list and rank (according to their expiry) the international connectivity systems that will reach the end of their lifetime in the coming 5 to 10 years;
- Identify new international connectivity infrastructures that may assure sufficient capacity and resilience and furthermore provide competitive advantage to the EU;
- Identify and list potential needs for new connectivity infrastructures through the exploitation of key infrastructure projects in energy and space;
- Forecast the incoming/outgoing data flow volumes to/from the different parts of the World, and benchmark those against the EU’s current international connectivity availability and capacity;
- Based on the aforementioned five inputs, propose a European Data Gateway Platforms Strategy which places international connectivity also as a key element in the European Digital Strategy;
- Such a strategy should inter-alia assess the appropriate policy action (including the eventual need for targeted support to investments in submarine cables system and satellite networks) required to ensure the right availability and capacity.
- Develop a toolbox to share best practices among Member States, regarding licensing, authorization and registration of submarine cables
- Develop a toolbox to share best practices among Member States in cybersecurity (technical and non-technical) in submarine cables
- Publish guidelines for third countries on how to license satellite systems which are critical for connectivity leveraging harmonized best practices across the EU
- Ensure interoperability of formats between the existing and registered submarine cable systems and the ones that are being promoted
- Publish guidelines for sharing and collocation of terrestrial network connectivity to submarine landing stations.