

## **EuroISPA Position Paper on Sustainability**

*November 2024*

1. Digital technologies and infrastructures are key to allow the green transition and to achieve greater sustainability.
2. More can be done to address sustainability challenges.
3. Sustainability should be embedded in the whole digital supply chain.
4. Data centres are the cornerstone for untapping the potential of digitalisation to drive decarbonisation.
5. Promoting investments of data centres located in the European Union would underpin the greening of the EU economy.

### ***1. Digital technologies and infrastructures are key to allow the green transition and to achieve greater sustainability***

The positive effects of digitalisation to enable the green transition have been documented extensively<sup>1</sup>. Already today, the telecoms sector is making a major contribution to reducing the environmental impact of facilities with the replacement of legacy technology by modern equipment, which is more energy efficient. For example, 5G transmits the same amount of data with almost 80 percent less energy consumed than 4G and data transmission via fibre optic cables requires around 5 times less energy than copper connections<sup>2</sup>. Therefore, promoting 2g and 3g phase-out is of paramount importance as aging equipment is less energy efficient.

Moreover, the ecological footprint framework, which measures environmental demand relative to ecosystems' regenerative capacity, can be effectively applied to enhance sustainability in the telecommunications sector<sup>3</sup>. By conducting an initial assessment of resource consumption, including energy use and emissions, companies can prioritise high-impact areas for further action<sup>4</sup>. Focusing on low carbon energy (including renewables) integration, advanced energy management (e.g. in 5G networks), and reducing electronic waste will significantly reduce the sector's environmental impact<sup>5</sup>.

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<sup>1</sup> Arthur D. Little, "Digital Transformation for More Sustainability"

<sup>2</sup> Eco's [5 facts on sustainability of data centres](#)

<sup>3</sup> Global Footprint Network - [Ecological Footprint - Global Footprint Network](#)

<sup>4</sup> ITU - [ITU-T, Environment, Climate Change and Circular Economy](#)

<sup>5</sup> GSMA - [Scope 3 Guidance for Telecommunications Operators | GSMA](#)

## ***2. More can be done to address sustainability challenges***

EuroISPA supports proactive actions taken to address sustainability challenges for the digital ecosystem and European economy.

Sustainable and climate-neutral digitalisation can only succeed on the strength of political support for the Internet ecosystem to allow the uptake of green energies, the systematic waste heat recovery from data centres and the promotion of a comprehensive roll-out of gigabit infrastructures and the utilisation of 5G technologies.

Additionally, the electronic communications industry faces the challenge of managing growing data traffic while minimising costs and expanding network capacity. Although video content is currently the dominant data type, Content Application Providers (CAPs) are actively investing in optimisation techniques like data compression, caching, and content distribution networks (CDNs) to improve bandwidth efficiency.

To address this, closer collaboration among the telecommunications, technology, and media sectors is crucial for wider implementation of these technologies. EuroISPA further advocates for the European Commission to encourage best practice sharing on data distribution technologies with relevant industries.

Solutions to achieve sustainable and climate-neutral targets can come in different forms but it should be noted that additional regulation should not come at the expense of security, resilience and operational efficiency of digital infrastructures, as it would be counterproductive to the achievement of the goals of the twin transition.

## ***3. Sustainability should be embedded in the whole digital supply chain***

As the industry moves towards achieving net-zero emissions, it also becomes increasingly important to engage with equipment suppliers, service providers and users to address emissions throughout the supply chain. For many operators, a significant portion of emissions resides upstream in the supply chain, necessitating collaboration with suppliers to adopt more environmentally friendly practices. This includes energy-efficient manufacturing, transport, and storage methods, as well as embracing circular economy principles.

## ***4. Data centres are the cornerstone for untapping the potential of digitalisation to drive decarbonisation***

Digital infrastructures such as data centres and gigabit-capable telecommunications networks form the spine of digitalisation and are therefore a basic prerequisite for leveraging digital sustainability potential. They ensure the smooth operation of digital processes in industry, business, public administration and services and are therefore essential for the functioning, sovereignty, competitiveness and sustainability of the EU.

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The question about data centres' energy consumption should not be anymore an issue, as CO2 emissions for data centres have been trending downwards since 2015<sup>6</sup>, and will continue to do so, enabling greater savings in all sectors of the economy.

Linked to this, we should mention that the scalability of cloud services can help all sectors of the economy to reduce their carbon footprint<sup>7</sup>.

Finally, contradictory regulatory approaches at national level but also at EU level can hinder this potential<sup>8</sup>. In the worst-case scenario, this could lead to an exodus of the data centre industry to other locations.

### ***5. Promoting investments of data centres located in the European Union would underpin the greening of the EU economy***

In order to be efficient, data centres require consistent amount of energy<sup>9</sup> as rising electricity demands pressure the EU's aging power grid. At the same time, and as mentioned above, it is key to keep the EU market competitive as well as be able to respond to the raising needs of qualitative connectivity and resilient infrastructure. In that vein, the European Transmission and Distribution Operators (ERT) estimate that a € 800 billion investment in grid infrastructure is needed before 2030<sup>10</sup> to address these needs. Therefore, the right policies intertwined with boosted investments in clean energy infrastructure could result in data centres sourcing between 30 and 50% of their energy from climate-neutral or net-zero sources<sup>11</sup>. Overall, consistent regulatory approaches fostering investments within the EU, would thus strengthen the greening of the EU economy.

#### **About EuroISPA**

Established in 1997, EuroISPA is the world's largest association of Internet Services Providers Associations, representing over 3,300 Internet Service Providers (ISPs) across the EU and EFTA countries. EuroISPA is recognised as the voice of the EU ISP industry, reflecting the views of ISPs of all sizes from across its member base.

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<sup>6</sup> Eco's [5 facts on sustainability of data centres](#)

<sup>7</sup> In industry, for example, emissions data along the value chain can be recorded, collated and analysed using intelligent services in order to derive measures for a more efficient use of resources.

<sup>8</sup> The German federal government's current energy policy confronts data centre operators with contradictory regulatory approaches. While the industry is currently not taken into account in the German electricity price brake, the new German Energy Efficiency Act classifies data centres as energy-intensive and obliges them to meet requirements that are in part questionable from both a technical and a business perspective.

<sup>9</sup> European Commission – [JRC Publications Repository - Energy Consumption in Data Centres and Broadband Communication Networks in the EU](#)

<sup>10</sup> Euractiv – [Europe's industrialists want deep reform of power market to tackle €800b grid spending gap](#)

<sup>11</sup> Institute for competitiveness – [Protection against fluctuations: EU electricity market reform | I-Com](#)

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