



Ministry of Infrastructure

CWG-Internet: Online Open Consultation (October-December 2021)

Contribution submitted by the Government Offices of Sweden.

Short summary

Governments and policy-makers need to find urgent answers to protect populations already affected by climate change and its effects on everyone's lives. Using digital technology and data is necessary to develop competitiveness and create climate benefits - both in the short and long term.

It's urgent to act swiftly in order to reduce the carbon footprint of the digital economy as well as the need for accelerated digitalization in order to grasp the full potential in reduced CO₂ emissions.

What effects does the Internet have on the environment and vice-versa?

Internet and digital technology increasingly generate positive impacts on the resource efficiency of our daily lives. Be it in the energy infrastructure domain where a shift towards decentralized energy production is only possible through smart networks; or in our public transportation networks, which become increasingly powerful through second by second information exchange of multi-modal transport systems. Another example is increased resource efficiency in smart industry or the increased use of digital communication, as it significantly reduces, in many cases, the need to travel altogether.

Using internet and digitalisation, or specifically AI, for environmental applications has the potential to boost global GDP by several per cent (up to 5%) while also reducing global greenhouse gas emissions by the same (– 4,9%). Beyond the benefits of higher productivity and GDP, the real power of AI tools lies in their potential to tackle some of the growing pressures on our planet by accelerating a low-carbon transition.

Public awareness about digital infrastructure's energy footprint is growing and the media is raising the level of information on what needs to be done. For the end-user of digital services, it still is unclear how they can contribute to reducing their digital energy footprint, since few providers disclose their energy consumption. Like in other industries, the pressure for transparent supply chains, of which energy is an integral part, is increasing for providers of digital services.

How can we improve the impact the Internet has on the environment and take advantage of its potential to help address climate-related issues?

Digital solutions facilitates the green transition by lowering energy consumption, optimise the usage of resources, lower material consumption, lead to new ways of doing business as well as improve tracking possibilities. Focus need to be on both developing the latest technologies as well as ensuring that solutions are spread along the production chains for greatest impact.

The transition to a circular economy has great potential to reduce resource use, and thereby limiting climate and environmental impacts. Enterprise and innovation, based on circular material flows and business models, can strengthen the development of a resource-efficient, non-toxic, circular and bio-based economy.

Cooperation on concrete digital use cases to increase cross-border coordination and multi-country projects to provide value for citizens. 26 Member States and Norway and Iceland have signed [a declaration](#) to accelerate the use of green digital technologies for the benefit of the environment. Here are some of the actions applicable to international cooperation and as use cases:

- Support the deployment of green digital solutions that accelerate the decarbonisation of energy networks, enable precision farming, decrease pollution, combat the loss of biodiversity and optimise resource efficiency;
- Lead on energy efficient artificial intelligence solutions;
- Help cities become more green and digital;
- Use technologies to make buildings more energy efficient;
- Support smart and sustainable mobility systems;
- Use digital product passports to track and trace products to improve circularity and sustainability;
- Promote eco-designed products and accessible digital public services;

What role should stakeholders play in shaping the environmental impacts and benefits of the Internet?

Ambitious climate plans are important and the internet and digital technology should be included.

A key factor is to create favourable conditions that attract investments and reward industries for investing in research and innovation, and that help universities create and disseminate excellent research. International cooperation in research and innovation is a powerful tool.

What are the policy, regulatory and other relevant matters associated with the environmental impacts and benefits of the Internet?

Both public and private investments are important for the development of sustainable technologies. In addition, free, fair and sustainable international trade policy including on data flows that supports global growth are important and underpins our climate and environmental goals.

Emissions Trading System must be strengthened to enhance the business case for the green transition. Benchmark systems needs to be revised to better take into account new zero-emission techniques. Standardization is important to facilitate the transition to a circular economy as the demand for products in terms of recyclability, durability and repair are increasing. It's important that the work on standards is coordinated on the global level and the work of ISO and IEC is respected to avoid duplication.

We need to make sure that regulations provide sufficient space for all types of companies and other actors to choose and develop forms of business and products. Therefore it is important that regulations are technology-neutral and leaves room for actors to adapt to societal changes that are not yet predictable, and that rules can be continuously revised.