DIGITALEUROPE

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Digital contribution to delivering long-term Climate Goals

DIGITALEUROPE response to Climate Law roadmap

DIGITALEUROPE is convinced that digital technologies are key enablers for attaining the sustainability goals of the European Green Deal and contributing to the Paris Agreement and United Nations Sustainable Development Goals (SDGs)[1]. In order to leverage this enabling potential and to facilitate the achievement of the EU's 2050 climate-neutrality objective, we believe that digital and sustainability should work hand in hand.

Industry's digital transformation is offering new prospects to unlock innovation, provide new opportunities to workers, decarbonise and generally do more with less. Digital technologies have the potential to enable a 20% reduction of global CO2 emissions by 2030.[2]

At the same time, it is essential to ensure a sustainable digitalisation. For numerous years, the carbon footprint of ICT products has increasingly improved due to a combination of regulatory initiatives and industry efforts. Typically, the industry has heavily invested to improve the efficiency and increase the use of green fuel alternatives within data centres. That explains partly why the total energy consumption of ICTs remains close to 3% despite the ever-increasing digitalisation of the economy[3].

[1] DIGITALEUROPE outlined key principles and recommendations on green growth and digital transformation in its "Call to action for a Stronger Digital Europe" https://www.digitaleurope.org/policies/strongerdigitaleurope/

[2] See DIGITALEUROPE call to action for digital and sustainability https://www.digitaleurope.org/resources/digitalisation-as-key-for-a-sustainable-europe-our-call-to-action-for-the-eus-strategic-agenda-2019-2020/ . Various studies have been conducted that come to similar conclusions, e.g. https://www.semanticscholar.org/paper/Exploring-the-effect-of-ICT-solutions-on-GHG-in-Malmodin-Bergmark/fc3d1fb8e9eaa461224197bc47e86ee3d2099d0e

[3] GeSI, #SMARTer2030 ICT Solutions for 21st Century Challenges, 2015 http://smarter2030.gesi.org/downloads/Full_report.pdf

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Europe is known for its extensive regulatory framework of product policies, which has expanded significantly over the years. Especially in our sector, we have a significant amount of legislation in place, which is often also adopted (in-part) by jurisdictions outside the EU. This years-long knowledge and experience, together with the EU institutional change, puts us now in an excellent position to reflect and ensure the framework remains fit for purpose and contributes to reaching the long-term climate goals.

Harmonised and incentive-based policy instruments leveraged by digital technologies will send a strong and positive message to the market for companies to do the right thing. We need to find the right balance and make sure the pieces of the puzzle fit better together.

We need to think about innovative ways of regulating and we should focus on the key long-term goals we want to achieve. We should look at the full toolbox available in terms of legislation, non-legislative policies, education & skills, funding, voluntary industry initiatives etc.

When we think about new initiatives and how they can make a difference and create the necessary scale, we should also think about how they are going to be implemented and enforced. As DIGITALEUROPE we support greater harmonisation, avoid fragmentation and work towards a stronger single market. We understand that in the area of environmental legislation, some Member States want to go beyond EU rules. As industry, we would prefer EU rules to be ambitious, harmonised and justified in order to avoid a fragmented market. Fragmentation impacts the ultimate effectiveness of environmental regulation.

The European Green Deal is, rightly so, one of Europe's top priorities. Climate change, and its related adverse economic, societal, and ecological risks, is the biggest challenge of our time and it requires a thorough approach that must be jointly addressed by the EU and industry. It is essential to find sustainable and innovative ways for both society and business to move towards a low carbon circular economy and ensure sustainable growth.

Benefits of digital in achieving climate goals

The biggest role that the digital sector can play is in contributing effective solutions to other energy-intensive sectors, influencing consumer and producer behaviour and leading the transformation of our energy systems. Industry's digital transformation is offering new prospects to unlock innovation, provide new opportunities to workers, decarbonise, and generally do more with less. It is essential to integrate a European industrial strategy into the European Green Deal and make sure digital plays a key role. The sustainability goals from the Green Deal need to align with and further build on the industrial policy strategy objectives to drive industrial leadership.

Digital technologies are already used in energy end-use sectors, with the deployment of potentially transformative technologies in applications such as energy networks, water plants, and buildings. But it needs to go even further. Typically, the combination of hardware and software technologies in buildings (building management systems & software) could generate up to 50% energy savings in a smart building, with a return on investment between 3 to 5 years[4]. In industrial sectors, digital technologies are offering unprecedented opportunities for increased energy efficiency savings while empowering users to manage and optimise their assets and processes. It is estimated that digital technologies have the potential to save almost 10 times more emissions than they produce by 2030[5].

The potential can be illustrated by several examples how digitalisation can contribute to further reduction of global CO2 emissions:

- Digitising the logistics sector will significantly reduce CO2 emissions through optimisation, by enabling driverless and connected cars, flexible charging services, as well as mobility-as-a service solutions (estimated 3.6GT CO2 reduction in the transport sector).
- Digital manufacturing enables material and energy efficiency in key sectors of the EU economy thereby enabling the European manufacturing sector to reinforce its leadership position (estimated 2.7GT CO2 reduction in the manufacturing sector).
- Advanced monitoring of livestock health and growth enables dedicated administering of fertilizers or food supplements, optimising and conservation of water resources, avoiding spillage and pollution, achieving energy savings (estimated 2.07GT CO2 reduction in the agricultural sector).

[4] American Council for an Energy-Efficient Economy, Smart Buildings: Using Smart Technology to Save Energy in Existing Buildings, 2017
[5] GeSI, #SMARTer2030 ICT Solutions for 21st Century Challenges, 2015

- Digitisation enables “intelligent” electricity networks and leads to more efficient, flexible and resilient grids with sustainable integration of renewable generation, and a more reliable power system with reduced operations, maintenance costs and outages. Such a fully modern electricity smart grid takes advantage of advanced digital control and data analytical models and systems (estimated 1.8GT CO2 reduction in the energy sector).[6]

To align sustainability goals with industrial policy strategy[7] and to drive industrial leadership, we need policymakers to focus on the right framework recognising the full potential that digitalisation and the fourth industrial revolution have in delivering a low carbon circular economy and achieving the long-term climate goals. We therefore recommend that as part of the new Climate Law, and relevant related policies:

- Digital technologies are considered, and digital policies further integrated.
- Environment and climate objectives are considered in all impact assessments for future digital regulation promoting the enabling impact of technologies and vice versa.
- A digital manufacturing strategy is adopted that prioritises sustainability and decarbonisation in industrial sectors of the EU economy.
- European performance indicators are developed to measure the decarbonisation achieved through digital technology use.
- Dedicated Multi-Financial Framework (MFF) funding is ensured for the implementation of digital technologies aimed at decarbonisation and circular economy, including funding for the development of ground-breaking and scalable emerging green tech innovations.

DIGITALEUROPE looks forward to continuing the collaboration with the European Commission and other relevant stakeholders and contribute constructively to further discussions on the Climate Law and related initiatives to reach the climate goals.

[6] GeSI, #SMARTer2030 ICT Solutions for 21st Century Challenges, 2015 http://smarter2030.gesi.org/downloads/Full_report.pdf

[7] DIGITALEUROPE intends to present its industrial policy recommendations in February 2020

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About DIGITALEUROPE

DIGITALEUROPE represents the digital technology industry in Europe. Our members include some of the world's largest IT, telecoms and consumer electronics companies and national associations from every part of Europe. DIGITALEUROPE wants European businesses and citizens to benefit fully from digital technologies and for Europe to grow, attract and sustain the world's best digital technology companies. DIGITALEUROPE ensures industry participation in the development and implementation of EU policies.

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