New Commission Priorities



- A European Green Deal
- A Europe fit for the digital age
- An economy that works for people
- Protecting our European way of life
- A stronger Europe in the world
- A new push for European democracy

"..a once-in-a-generation opportunity to ensure Europe leads the way on the twin ecological and digital transitions'.

Background:The nexus of Green Transition & Digital Transformation



Synergies

Digital transformation for climate neutrality. Under certain conditions (design, use, governance) digital can reduce 15-20% of total GHG emissions

Conflicts

- ICT footprint: ~3% of global GhG emissions;
- <u>eWaste</u> fastest growing waste category

Twin transition: The nexus of Green Transition & Digital Transformation



- <u>Today's focus</u> is mostly on the conflicts because measurable.
 Enabling effects are still based on projections
- Aim: maximise benefits / synergies for sustainability and D, define purpose and be aware of system boundaries
- <u>How</u>: Science based methods to measure the net contribution of digital to environment → leading to sustainable finance for green digital (EU Taxonomy, Green Public Procurement, international finance)

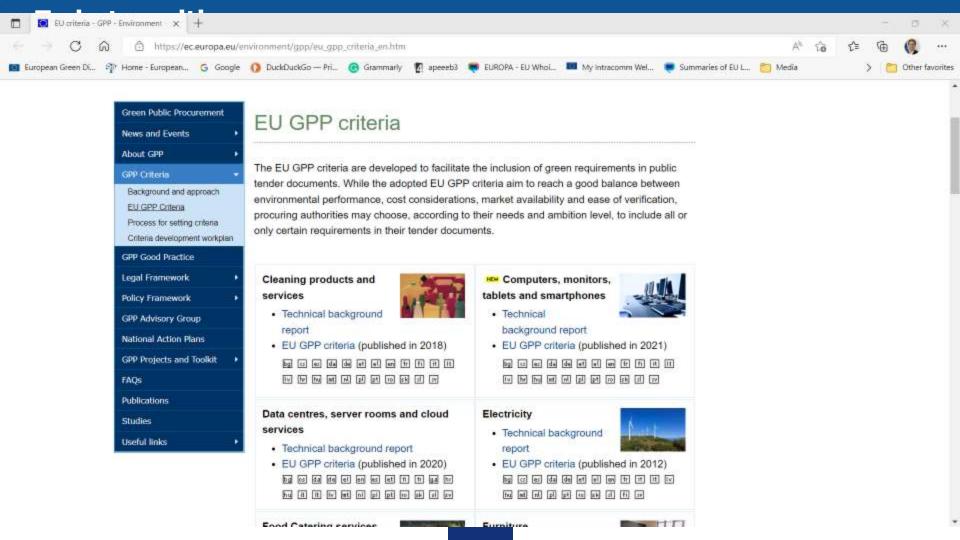
https://www.greendigitalcoalition.eu/





Green Public Procurement (GPP) digital equipment and services – by using EU GPP criteria, in coordination with the central procurement authorities to follow existing

https://ec.europa.eu/environment/gpp/eu_gpp_criteria_en.htm





Use digital tools and services to improve the footprint of your organisation

- Optimise travel of staff and visitors
- Building footprint better use of buildings, heating/cooling
- Green Public Procurement byond ICT furniture to office supplies



Promote use of digital tools and services to improve the sustainability of the sector you are responsible for

- Smart energy grids, build environment, connected mobility, Precision farming, environmental & forest protection and enforcement of regulations, green datacentres, greener telecommunications,

Digital contribution to environment & climate

Digital for Circularity / Digital product passport: Data for circular business models, creating a sustainable, integrated Single Market

Smart mobility: reduction of transport emissions est. up to 37%; **smart buildings** with emissions reduction est. up to 17%; smart energy systems appr. 23 %



Digital contribution: reduction by up to 15%-20% of total emissions with deployment of today's technology.

Destination Earth / digital twins:
High Performance
Computing, AI for better anticipation of extreme events prediction, climate modelling.





Also: precision farming, Blockchain for emissions accounting, smart cities; AI for climate; smart manufacturing/digital twins;



EU Countries commit to leading Green Digital Transformation



Digital Day- March 19, 2021

24 Member States, Norway and Iceland have signed a declaration to accelerate the use of green digital technologies for the benefit of the environment.

Examples of commitments made:

- Making use of Green Public procurement the default option;
- Support the **deployment of green digital solutions** that accelerate the decarbonisation of energy networks, decrease pollution, combat the loss of biodiversity and optimise resource efficiency;

https://digital-strategy.ec.europa.eu/en/news/eu-countries-commit-leading-green-digital-transformation

A Green and Digital Transformation of the EU Smart way of clean digital technologies can serve as a key enabler for climate action. environmental sustainability, and reaching the UN Sustainable Development Goals by improving energy and resource efficiency and facilitating circular economy, reduced ensissions, pollution, biodiversity loss and environmental degradation, and improved resilience to climate change impacts. At the same time, the KT sector should ensure the environmentally sound design and deployment of digital networks and technologies and products. Europe can compete globally in the green tach market, particularly by promoting inspertive technologies, low-power electronics and environmental vustainability of ICT in this context, we welcome the establishment of the European Green Digital Coalition that will accelerate the ICT sector's transition towards a sustainable, climate neutral, circular and pero golfation economy while at the same time contributing to innovative, sustainable, inclusive and resilient society and economy. We stand ready to engage with industry to contribute to the success of the Confition. Our goal is to accelerate and take the global lead on the green digital transformation, faulding on the Council Conclusions of 17 December 2020 on "Digitalisation for the Benefit of the Environment", as well as on the Digital Strategy (CDAV/2020/67 final). We therefore will work together to use the significant potential of the Recovery and Resilience Facility and the earmarking of expenditure on reforms and investments to support the mutually reinforcing green jut least 37% of funding and digital transitions lat

New commitments by Member States in June 2022: https://www.economie.gouv.fr/files/files/2022/Call for Green Digital Transition EU.PDF

Sustainable Digital Technologies (Greening ICT)

Climate Neutral and highly energy efficient datacentres by 2030: review JRC's CoC, the Energy Efficiency Directive and the Taxonomy Regulation



Greener electronic communications by 2030:

- Transparency measures
- Administrative incentives for green deployment



Circular Electronics
Initiative: Better durability, reparability, refurbishment, recycling for consumer and industrial electronics & IoT

"Right to repair" for consumers.



Low power processors, software and AI: investing in new ultra-low-power





ICT & Materials?

Europe produces the most e-waste per capita worldwide

- > 16.2kg per person/year
- > Value lost in **raw materials** ca. €13 billion/year
- > Hazardous materials





ICT devices (smartphones, tablets and laptops) are of particular concern due to quantity, materials and emissions



Extending the lifespan of all smartphones in the EU by 1 year



Removal of 1 million cars from our roads (in emissions)

Opportunity to grow local/EU aftermarkets for electronics

E.g. automotive industry





Thank you





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