Digitalisation - friend or foe of climate protection and a sustainable future for our societies?

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Can digitalisation be carried out while maintaining a sustainable pathway and mitigating climate change? Deborah Goll and Tim Grothey joined the Climate Talk #3 to discuss the close ties between digitisation and climate protection.

Tim Grothey, researcher at Borderstep Institute, introduced the potential of the data center market - in the last decade, the data center capacity in Germany grew by around 85% and is still expected to grow by another 30% until 2025. These data centers are the backbone of digitalisation in Germany. In 2020 the electrical energy consumption amounted to 3.4% of the overall German power consumption. Despite the enormous energy consumption, its CO2 emissions decreased in the last few years, due to the increasing share of renewable energies in our energy system and the increasing data center energy efficiency. Not only that, the waste heat produced in data centers could be further utilized by introducing them to local heating networks. Theoretically, 10% of heat demand in Frankfurt am Main could be supplied by data centers. Although there are bureaucratic and infrastructural challenges that need to be overcome to achieve heat distribution from data centers, he addressed the importance of tapping into this potential to reduce fossil fuel consumption.

As the biggest network for ICT in Europe representing more than 45,000 SMEs (small and medium-sized enterprises), the European DIGITAL SME Alliance considers building a sustainable digital Europe as one of their priorities, Deborah Goll explained. In achieving ICT sustainability, DIGITAL SME focuses on building a B2B relationship across Europe to foster companies to develop their own solutions, rather than depending on big companies or big product solutions. They also put effort into developing green technologies, such that could be deployed across sectors to save resources, increase efficiency, and allow repairability and re-use of products. Furthermore, they support a holistic approach that would ask EU policymakers to invest in skills, digital skills and the ability to communicate across different systems which is crucial in achieving digitalization. Through their newly-launched ICT focus group, they are working towards drafting deployment guidelines for greener technologies, and to work with various stakeholders to ensure that innovative SMEs are front and center in green and digital projects as well as in legislation that addresses climate issues.

Later in the discussion, touching upon the recent emergence of the home office and its impact on digitalisation, Tim shared data that suggests that the effect of remote work

was rather questionable in terms of climate protection. He addresses the importance of digital transparency, noting that not many of the consumers are aware of how much energy is being used for occasions like streaming a video or having an online conference. Although there have been pacts like the Climate Neutral Data Center Pact in the last couple years, it's unclear as to what specific actions and impact are actually being made.

Deborah introduced the European Green Digital Coalition, now consisting of 35 mostly large companies including the likes of Telekom and Google, which aims to maximize the sustainability benefits of digitalization and to provide a methodology to estimate the net environmental impact of green digital solutions. The coalition has strict timeframes and requirements, obligating the companies when signing the declaration to commit to carbon footprint reduction within a certain period of time. The companies' efforts and roadmaps are checked, and if they do not meet the agreement they are expelled from the coalition.

In times of crises, the important role of digital tools are clear - they are proving to be the key factor, for instance, in connecting refugees to job opportunities and housing, as the current invasion of Ukraine shows. The role of digital tools is becoming more crucial in all sectors.

🌐 Relevant websites:

https://www.digitalsme.eu/

https://www.borderstep.de/

https://www.greendigitalcoalition.eu/

https://www.digitalsme.eu/digital-opportunities-for-refugees/