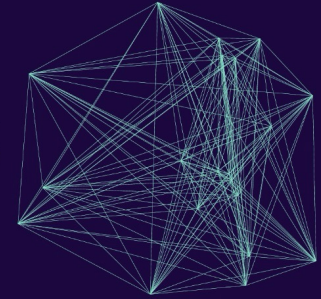




Alliance for IoT
and Edge Computing
Innovation

AIOTI
SIGNATURE EVENT

2023



PLATINUM SPONSOR:

SIEMENS

DIAMOND SPONSOR:



AIOTI Signature Event • 10 October 2023

Computing Continuum: The Next Frontier of the IoT, Edge and Web3

Session 5: Some Key Insights from Session 1 - Climate and Resource Resilience

Georgios Karagiannis (Huawei – AIOTI WG Standardisation and TF
Digital for Climate chair)

Scope of the session and some key insights

- The **green and digital transition should generate new business** in particular in the area of using IoT and edge computing as enablers to reduce the energy and carbon footprint in vertical industries
- AIOTI focused in the context of the **Digital for Climate Task Force**, on **providing guidelines and a methodology to IoT and Edge Computing technologies and services to stakeholders** on making informed choices on (1) how to **assess the carbon footprint of solutions and services they use**, (2) include selection criteria that are needed to help stakeholders to **select the most suitable PCF methodology for each considered scenario**, industry sector, initiatives and standards, existing methodologies of measuring ICT carbon footprint and how they can be applied to IoT and Edge Computing, and (3) **measure how these methodologies support carbon footprint reduction of their use** and (4) **measure the avoided carbon emissions in industrial sectors when IoT and Edge computing are applied**
- **Key Theme:**
- In this session we will show how IoT and Edge Computing business driven scenarios and use cases can support these objectives and challenges, in particular **how to deal with current energy crisis, CO2 reduction, support circular economy and digital product passport, impact on manufacturing and data spaces and measuring climate impact**
- **Key conclusions:**
 - **The definition of an agreed and aligned methodology** to measure the total avoided carbon emissions in industry scenarios, when applying ICT (IoT and Edge computing), is a key requirement for the success of deploying ICT solutions to reduce carbon emissions in industry scenarios:
 - Important is the **willingness of the industry to implement the DPP** (Digital Product Passport) under the ESPR (Eco-design for Sustainable Products)
 - Important to **engage and promote the cooperation globally, between industry, academia and green transition initiatives**
 - **Technology and Digital innovation** can improve energy and resource efficiency, facilitate the circular economy, lead to a better allocation of resources; reduce emissions, pollution, biodiversity loss and environmental degradation, but:
 - the ICT (IoT and Edge computing) sector must **ensure** the environmentally sound design and deployment of digital technologies by minimising the ICT carbon footprint (e.g., PCF - Product Carbon Footprint)
 - **Recycling** is not only **reducing the dependency on primary raw materials**, but it is as well **reducing the carbon emissions of products and systems**

Questions discussed during the session

- How can we ensure that IoT enabled applications and services have positive impact on the environment?
- How to address sustainability in IoT domain and in general with ICT?
- What are the major areas where IoT can contribute to sustainability?
- What is the most important measure to implement the ESPR (Ecodesign for Sustainable Products)?
- How big is the willingness of the industry to implement the DPP (Digital Product Passport) under the ESPR?
- What can leading IT companies do together to lower carbon emissions practically ?
- Are there specific solutions brought by IT companies that you have seen working with significant reduction of carbon emissions?



Thank you for listening

Any questions?

You can email sg@aioti.eu