



# Projet Européen SUSTAIN 6G

---

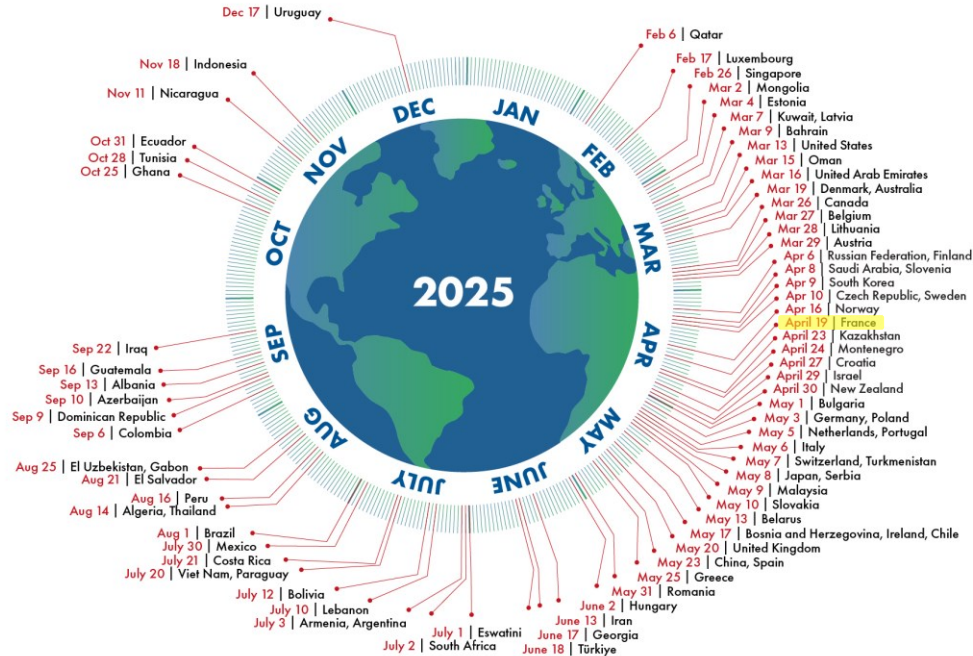
Prochaine Génération réseau mobile  
intégrant le développement durable

**SUST**ainability **A**dvanced and  
Innovative **N**etworking with **6G**

# Overshoot Days 2025

## Country Overshoot Days 2025

When Earth Overshoot Day would land if all the people around the world lived like...



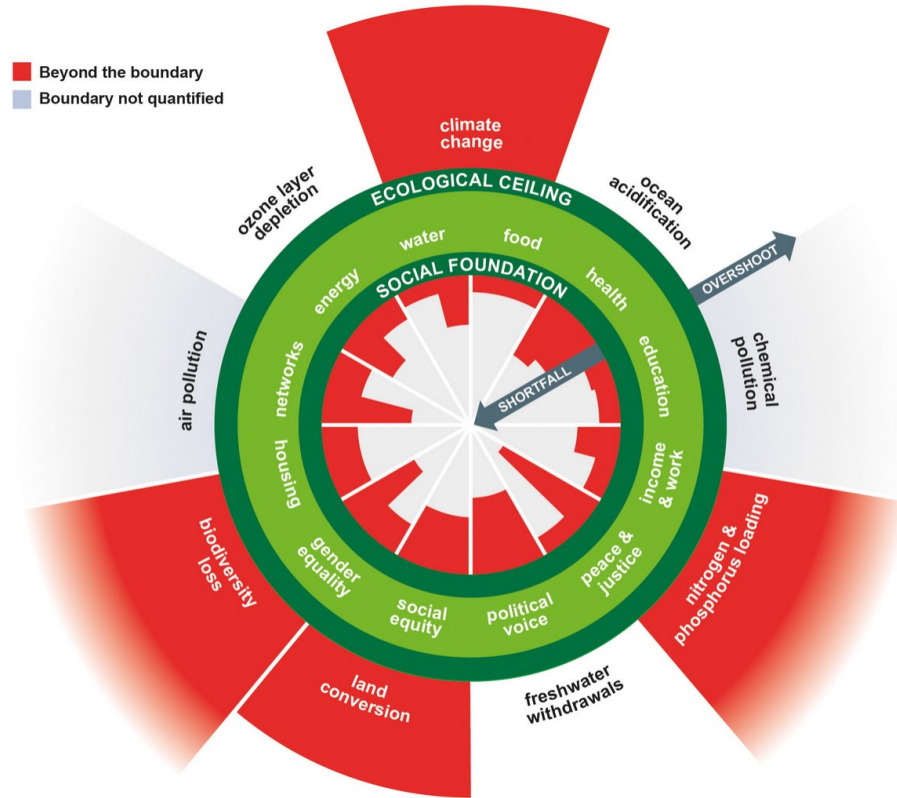
For more information, visit:

<https://overshootday.org/newsroom/country-overshoot-days/>

Source: National Footprint and Biocapacity Accounts, preliminary 2025 Edition  
York University, FoDaFo, Global Footprint Network, [data.footprintnetwork.org](http://data.footprintnetwork.org)

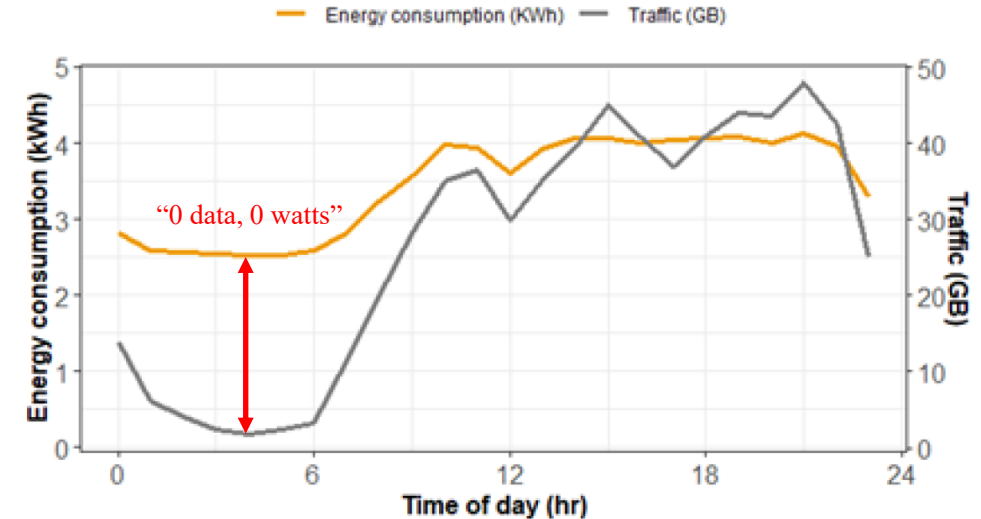
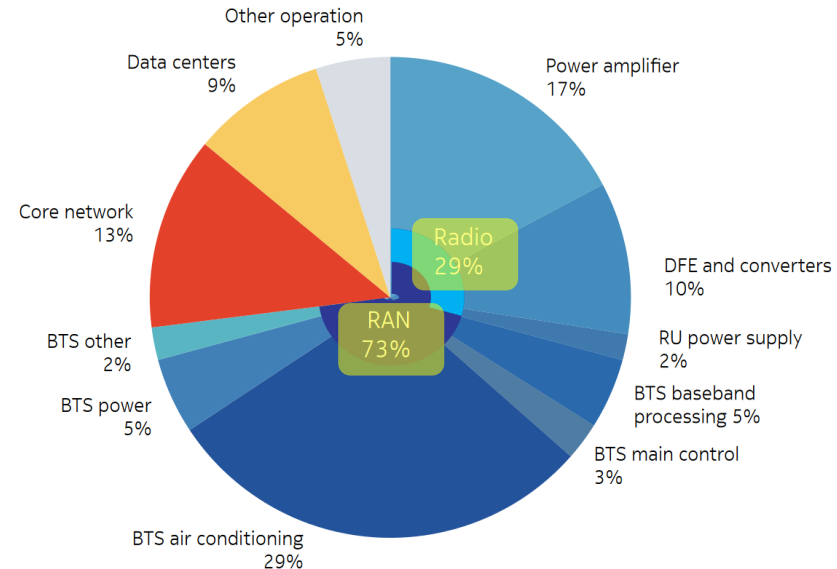


# “Doughnut” of social and planetary boundaries



# Information and Communication Technology (ICT)

2 to 4 % of global Greenhouse Gas emissions (GHG) [1] - Energy consumption example



Energy Consumption Breakdown for a CSP (from: [2])

Traffic and energy consumption from CSP provider (from: [3])

[1] - Rolling Plan for ICT standardisation, ICT Environmental impact (RP2024), Available: <https://interoperable-europe.ec.europa.eu/collection/rolling-plan-ict-standardisation/ict-environmental-impact-rp2024>  
 [2] - H. Viswanathan, S. Wesemann, J. Du and H. Holma, "Energy efficiency in next generation mobile networks," Nokia Bell Labs Whitepaper, 2022.  
 [3] - Esteban Selva, Rony Bou Roupheal, Yuanyuan Huang, Nadia Mouawad, Guillaume Boudry, Xavier Parmentier, Azeddine Gati, "The Impact of Networks in the Greenhouse Gas Emissions of a Major European CSP", HAL Open Science Id: hal-04174678, Aug 2023. Available: <https://hal.science/hal-04174678v1>

# Projet Européen SUSTAIN 6G

## Call

- [EU HORIZON-JU-SNS-2024-STREAM-B-01-07 Sustainability Lighthouse](#)
- R&I TRL levels 2-5 (Technology concept – Technology validated)

## Project Management

- Project Coordinator: Christoph Schmelz, Nokia, DE
- Technical Manager: Olivier Bouchet, Orange, FR
- Innovation Manager: Anastasius Gavras, Eurescom, DE

## Timeline

- January 2025 – June 2027 (2.5 years)

## Budget & Effort

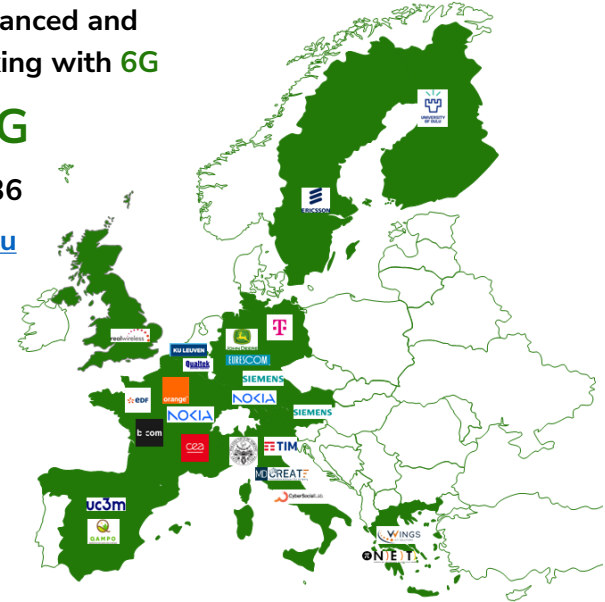
- Total effort: 1210 person months  
(= 40 full-time employees over 2.5 years)
- Total funding: 13 M€

**SUST**ainability **A**dvanced and  
**I**nnovative **N**etworking with **6G**

**SUSTAIN-6G**

Project # 101191936

<https://sustain-6g.eu>

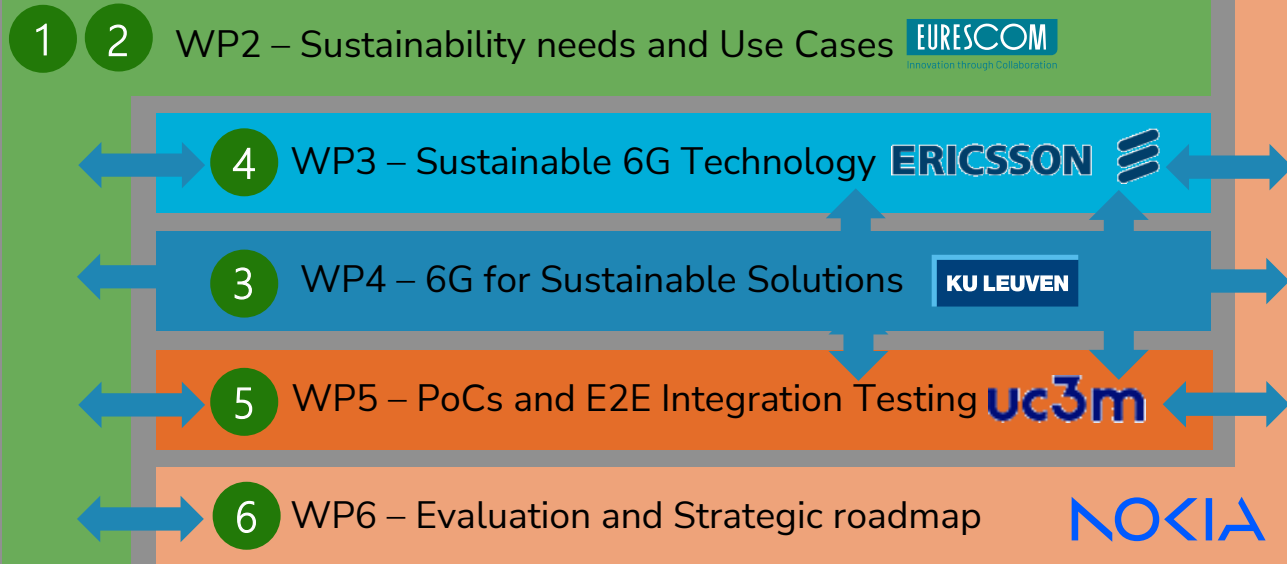


- SUSTAIN-6G will develop a holistic sustainability framework in the context of 6G, addressing all **three sustainability areas (environmental, societal, economic)**, and factors impacting sustainable 6G technology and 6G technology for improving verticals' sustainability.
- The project will develop **innovative concepts and solutions (24 Proof of Concepts)**, and address gaps and trade-offs in technology, **processes and methodologies**.
- The concepts and solutions will be **evaluated and validated (8 evaluation platforms)** on their **sustainability impact and performance (including 78 European SNS PoCs projects and national projects)**.
- The insights from these PoCs, and the proven processes and methodologies will be consolidated into **guidelines, best practices and roadmaps for use across the EU and beyond**.
- The **outputs** and impact of SUSTAIN-6G will provide the foundation for industry-wide **standardisation** that will enhance existing ecosystems, while **respecting EU values and rules**.

# Implementation

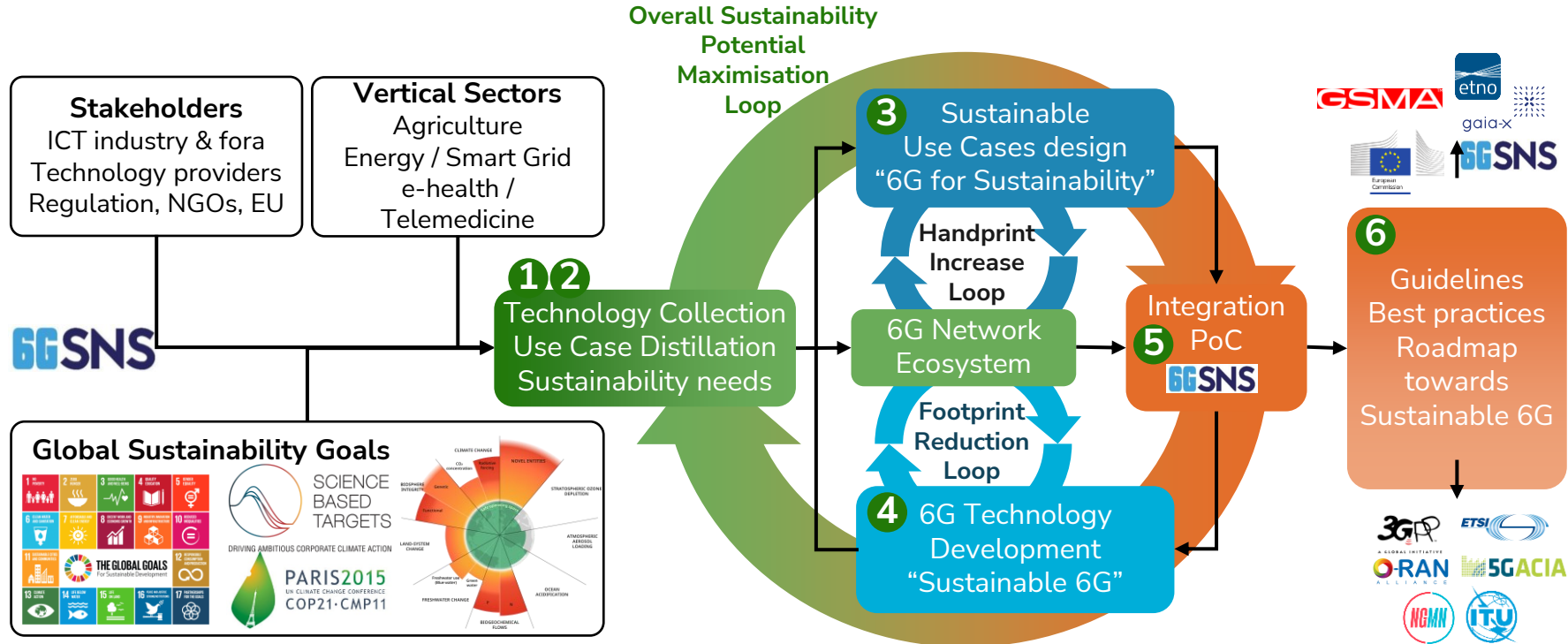
WP1 – Project & innovation management

NOKIA



WP7 – Impact creation and maximisation, Standardisation and Exploitation TIM

# Methodology





Disclaimer: This work is Co-funded by the European Union under Grant Agreement 101191936. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of all SUSTAIN-6G consortium parties nor those of the European Union or the SNS JU (granting authority). Neither the European Union nor the granting authority can be held responsible for them.

