

Kansallisen Green ICT-ekosysteemin 1. tapaaminen 17.6.2024

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**Euroopan unionin
osarahoittama**



Elinkeino-, liikenne- ja
ympäristökeskus



Taustaa Oulun yliopiston tutkimuksesta



OULUN YLIOPISTO

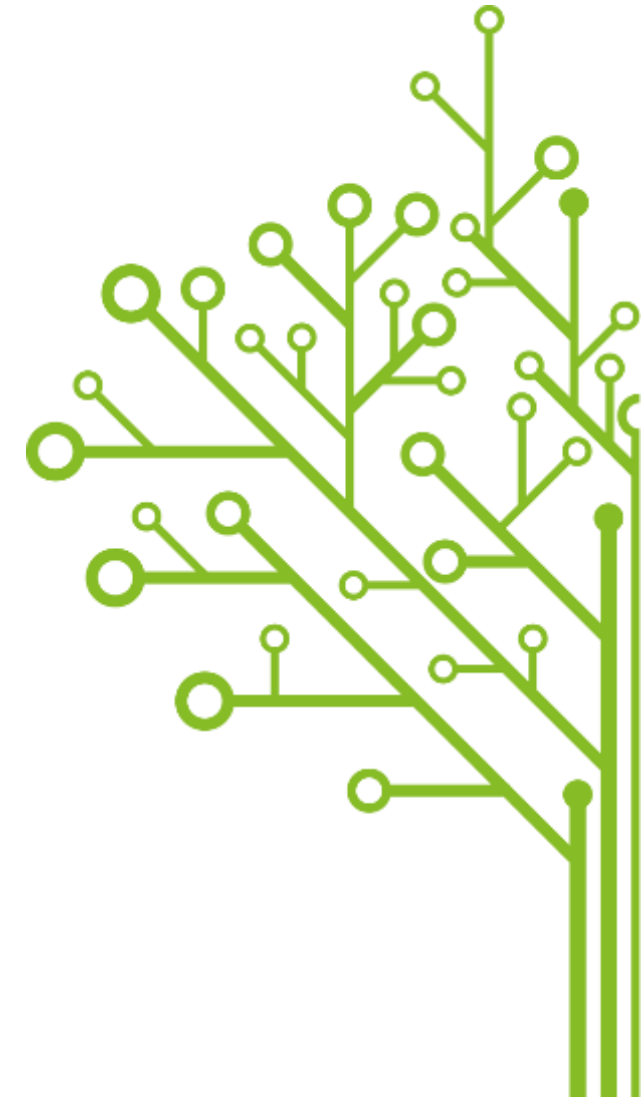
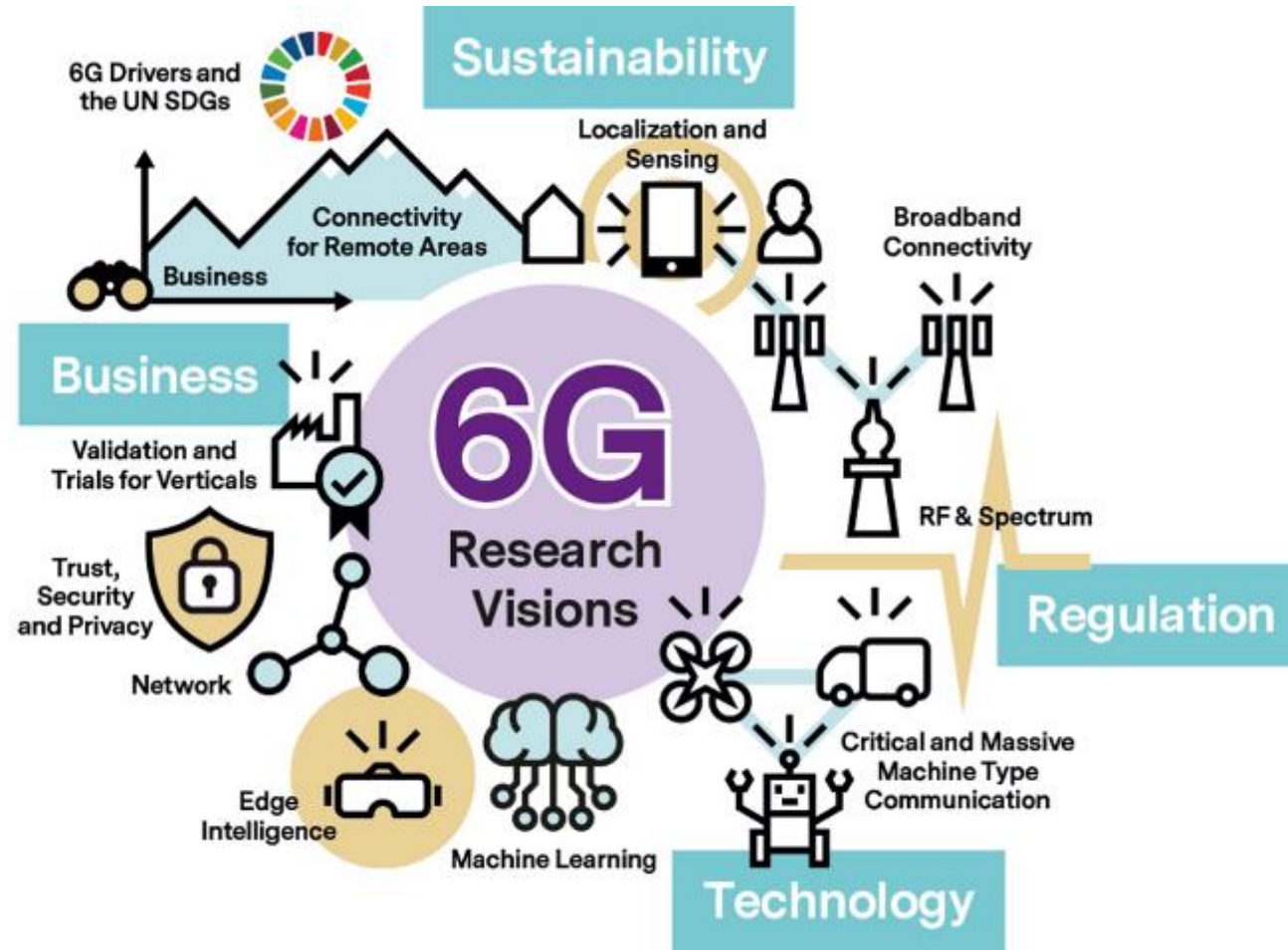
VISIIRI.



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Oulun yliopiston 6G-lippulaiva ja kestävä 6G-kehitys (2018-2026)



Kestävä 6G-matkaviestinjärjestelmien kehitys

6G White Paper 2019



M. Latva-aho & K. Leppänen (eds.) (2019). Key drivers and research challenges for 6G ubiquitous wireless intelligence. (6G Research Visions, No. 1). University of Oulu, Finland.
<http://urn.fi/urn:isbn:9789526223544>

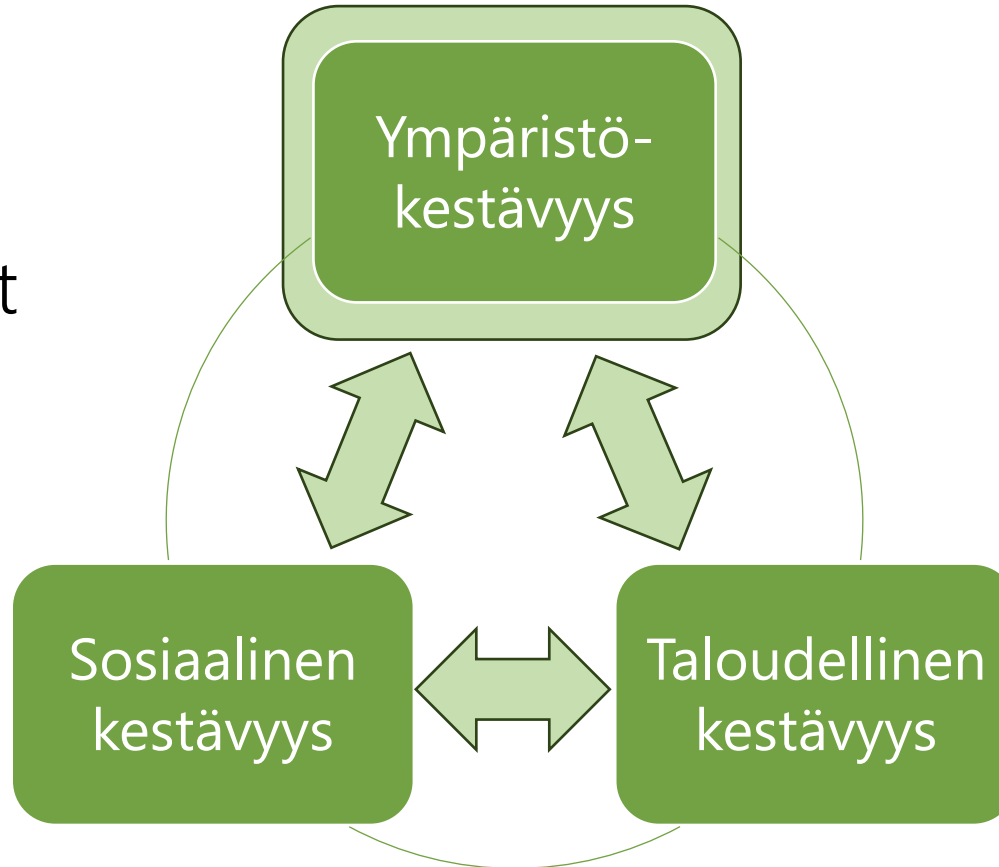
6G White Paper 2020



M. Matinmikko-Blue, et al. (eds.) (2020). White Paper on 6G Drivers and the UN SDGs. (6G Research Visions, No. 2). University of Oulu.
<http://urn.fi/urn:isbn:9789526226699>

Kestävyyden ulottuvuudet

- VISIIRI keskittyy ympäristökestävyyteen huomioiden myös muut kestävyyden dimensiot.



Esimerkki Euroopan 6G tutkimuksesta: Hexa-X-II

ENVIRONMENTAL SUSTAINABILITY

- Ecological footprint, land use, water use
- Carbon footprint, greenhouse gas emissions, carbon neutrality, decarbonization, net zero
- Use of natural resources, resource efficiency, energy efficiency, energy consumption, use of renewable energy
- Materials, waste management, circularity, recycling, durability
- Assessment of environmental impacts (carbon footprint, resource and water, land, waste, biodiversity footprints)

SOCIAL SUSTAINABILITY

- Availability of resources for good living (food, health, education, income, work, equality, human rights, trust, security, affordability, fairness)
- Digital inclusion – affordable access to digital services for all (including technologies, infrastructure, equipment, services, skills)
- Trustworthiness, security, privacy.

ECONOMIC SUSTAINABILITY

- Corporate level, ecosystem level, societal level for ICT and other sectors
- Sustainable growth, endeavour to net zero
- Sustainable business models, new business opportunities from footprint reduction and handprint effect, circular economy



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