



FLAGSHIP
UNIVERSITY
OF OULU

CWC, WE3 RU, 6G FS energy vertical, University of Oulu

Dr Sanna Tuomela, Prof. Mehdi Rasti, Dr Farid Hamzeh Aghdam

<https://www.6gflagship.com/>



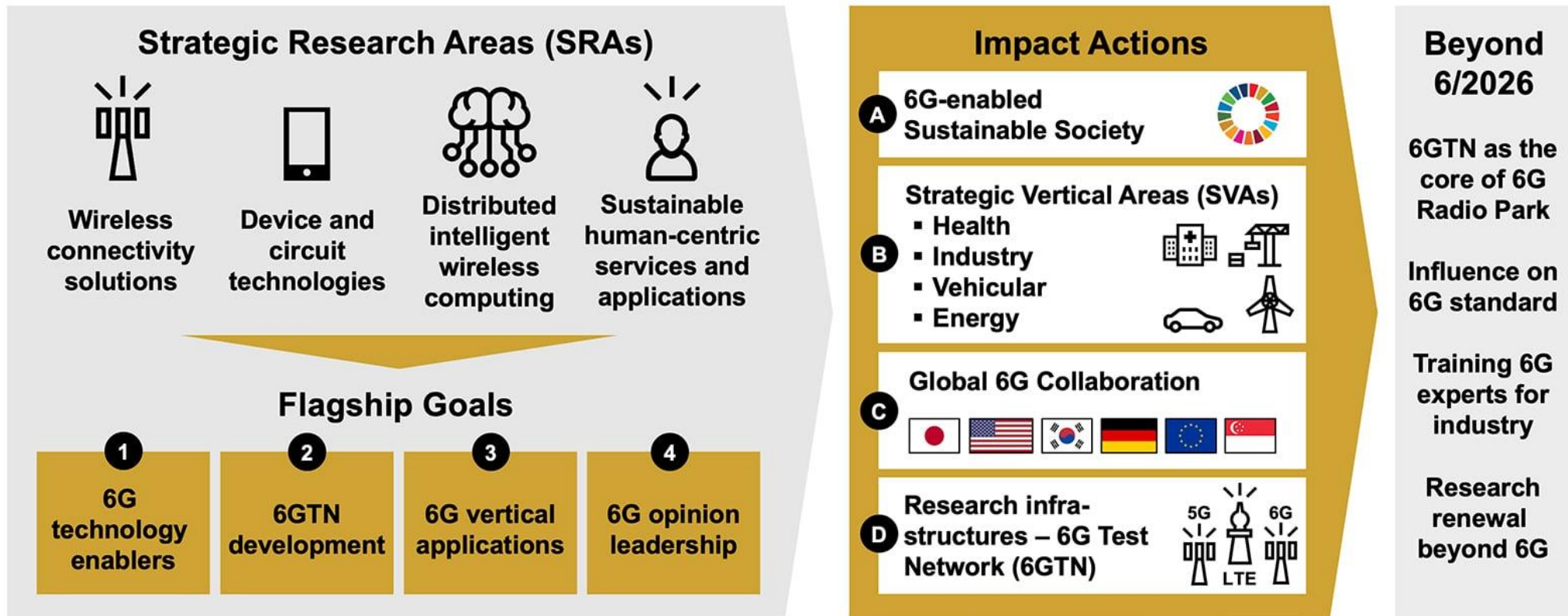
Who are we?



- 6G Flagship is the world's first 6G research programme, a global leader in 5G adoption, and a preferred research partner in 6G development. We do high-quality 6G research to create future know-how and sustainable solutions for society's needs in the 2030s. We operate under the University of Oulu, which also funds us together with the Research Council of Finland.

6G Flagship Vision for 2030

Data-driven sustainable future society enabled by near-instant, unlimited wireless connectivity

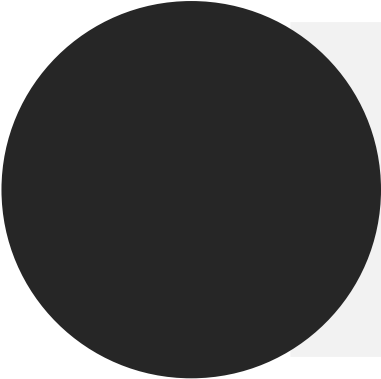


Who are we?

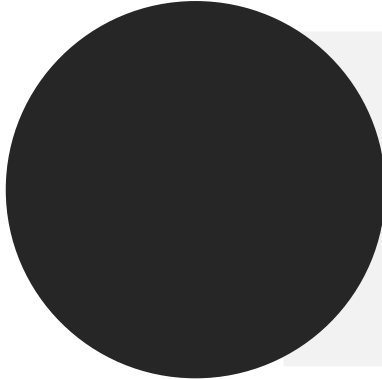


- The 6G-enabled sustainable society (6GESS) programme capitalises on 6G Flagship's technological expertise to develop the scientific framework for a data-driven, hyper-connected future society in which digital eHealth and future energy systems are intertwined. 6GESS looks into new technologies to help make healthcare and energy systems more democratic and efficient in the future. It also helps healthcare and energy providers and citizens become more involved in developing and using data-driven and digitised solutions.
 - 6GESS is a collaborative endeavour of four faculties: Medicine, ITEE, Technology, and Oulu Business School.
-
- **Energy Research Themes**
 - Sustainable energy systems empowering users with digital services
 - Energy efficiency of digitally enabled user-centric systems


6G energy vertical main areas of activity



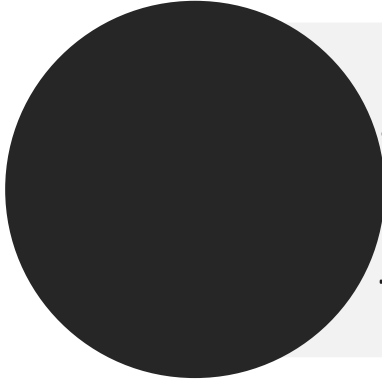
Digitalization of energy systems and demand response



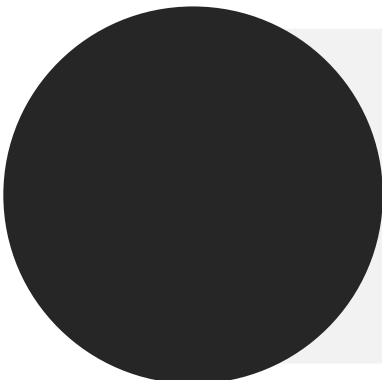
IoT, 5G edge, AI, ML for optimization and energy management



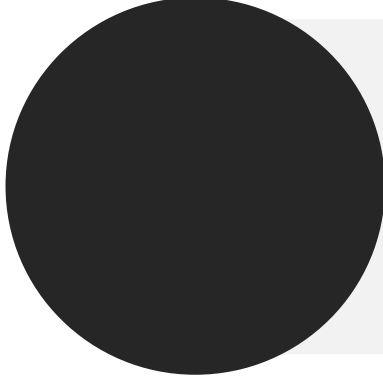
Flexibility and Resilience of energy systems



5G/6G communication and edge computing in the smart grid

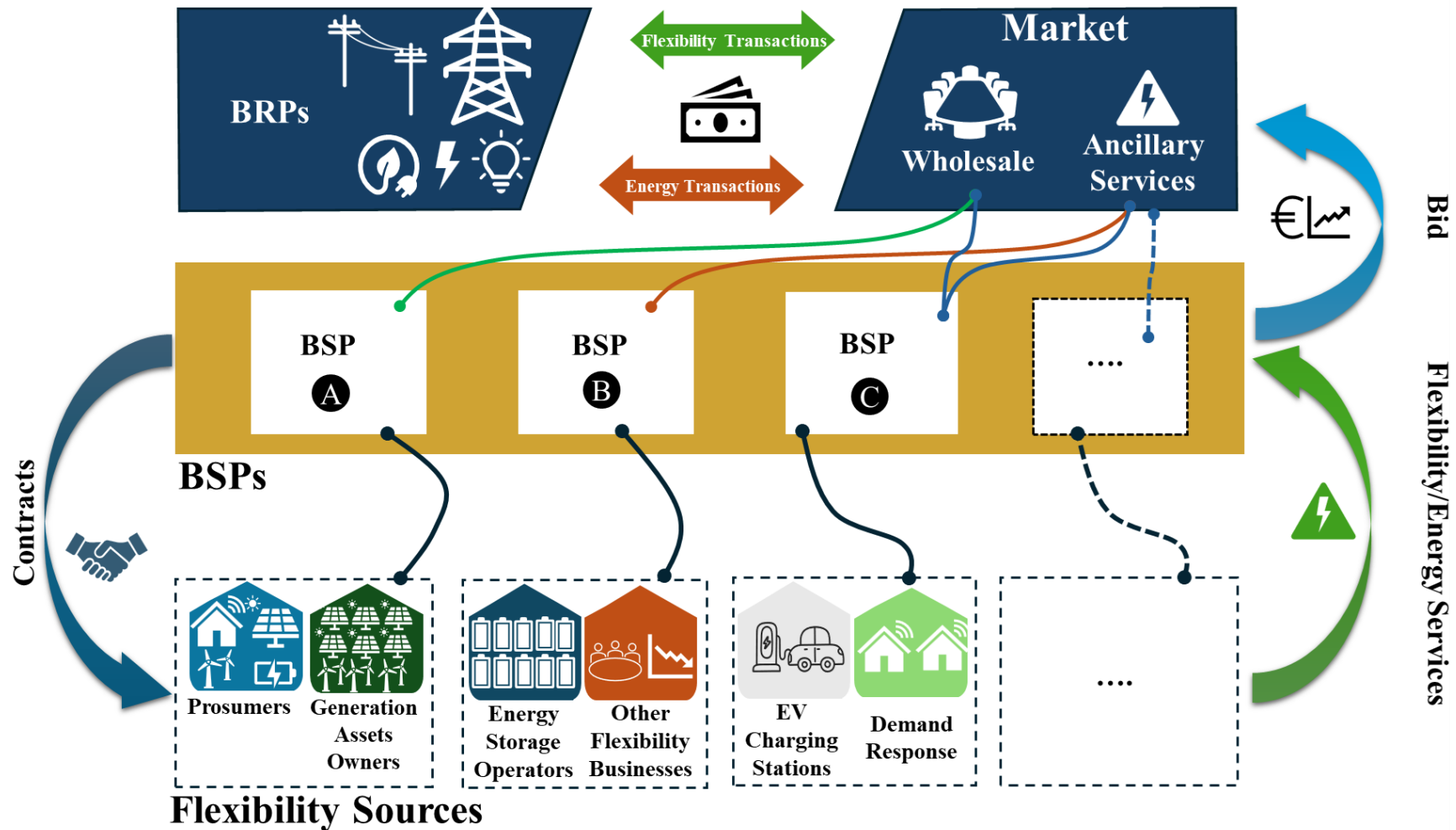


E2E energy efficiency of 5G/6G mobile networks and communication



Interoperability and democracy in data exchange for energy system purposes

Interoperable platform for flexibility exchange





Sanna Tuomela

 +358 44 976 5598

 Sanna.tuomela@oulu.fi

Mehdi Rasti

 +358 50 414 3814

 Mehdi.rasti@oulu.fi

Farid Hamzeh Aghdam

 +358 50 597 2141

 Farid.hamzehaghdam@oulu.fi