



University of Oulu Knowledge, Experts, Innovations

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University of Oulu

10 faculties

14,200 students

2,900 employees

over 50,000 alumni

Total funding 216 M€

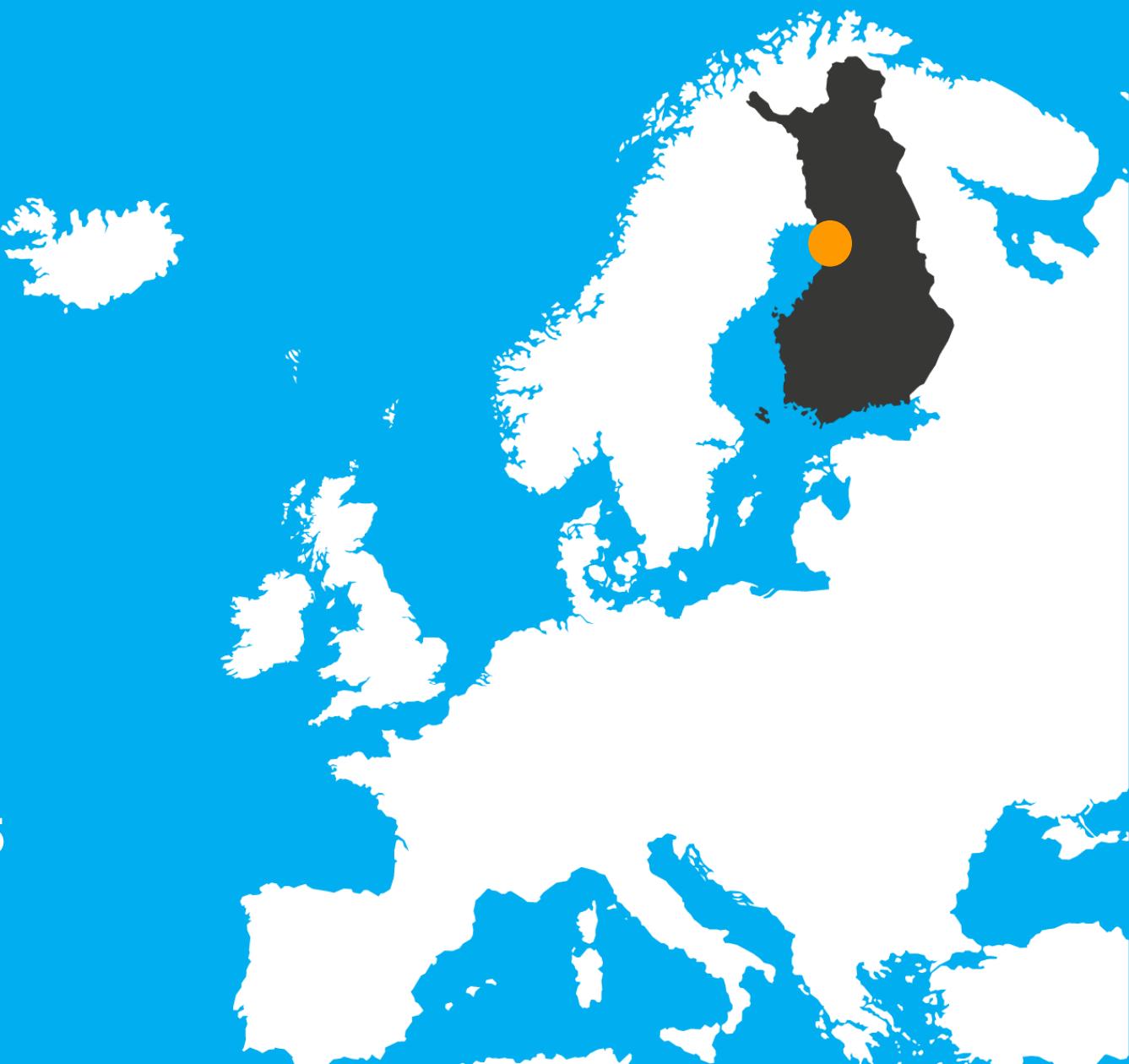
Founded 1958

1245 Master's degrees

172 Doctor's degrees

2511 scientific publications

54 invention disclosures in 2015



Science *with* Arctic Attitude

University of Oulu
Strategy 2016–2020





**Our strategy is
based on five
thematic,
internationally
significant research
focus areas**

**Creating sustainability by materials and
systems**

**Molecular and environmental basis of life-
long health**

Digital solutions in sensing and interactions

**Earth and near-space system and
environmental change**

Understanding humans in change



**Our research
benefits people
living at all
latitudes, but we
utilize our location
as one of the
Northernmost
universities in the
world**

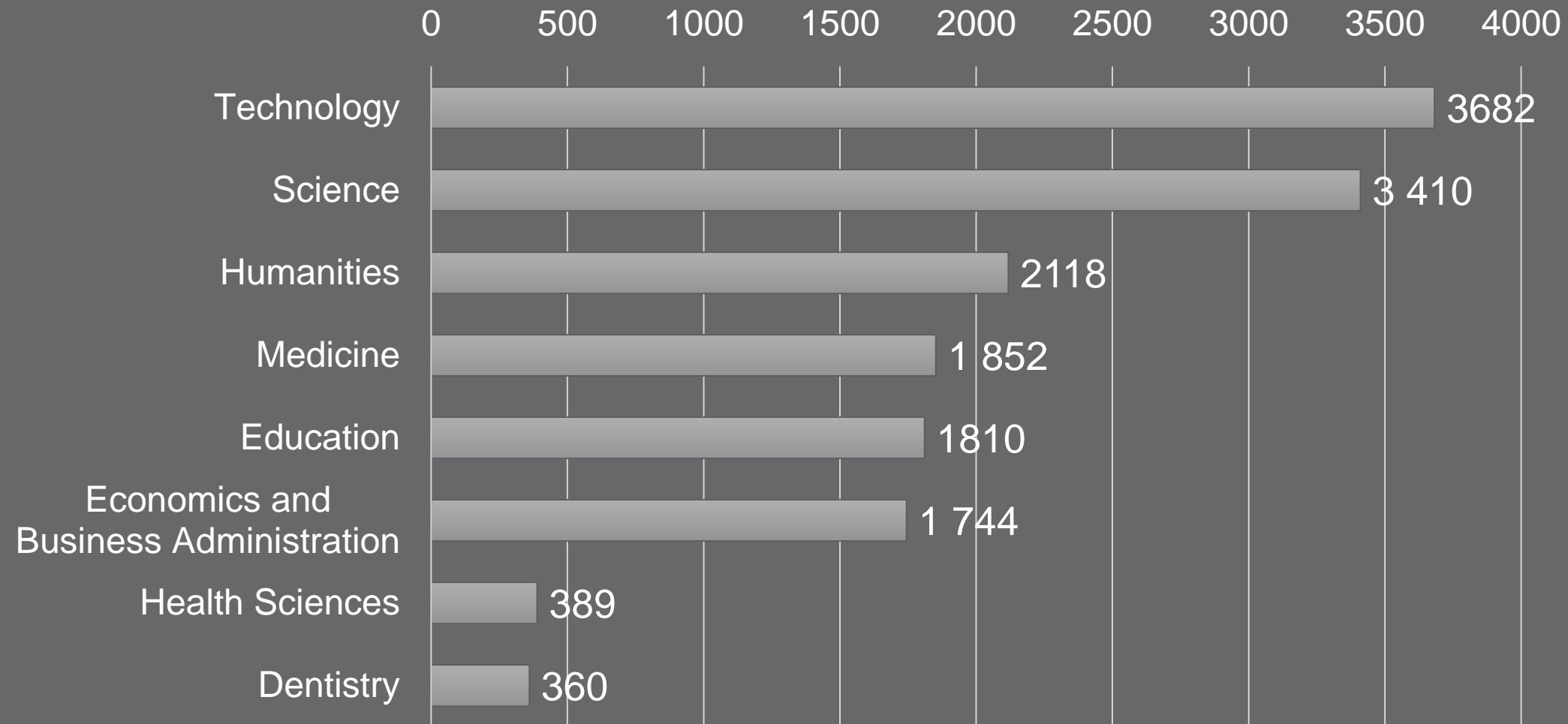


Arctic Agenda

Research and innovation regarding e.g. sustainable utilization of natural resources, Near-Earth Space Environment, logistics, technology, and cultures in the Arctic



Active students



ACKNOWLEDGED SPECIAL EXPERTISE

- ❖ New materials in bio and circular economies
- ❖ Advanced steel research
- ❖ Sustainable mining and energy economies
- ❖ Cleantech and sustainable production
- ❖ Spectroscopy and imaging of materials

ACKNOWLEDGED SPECIAL EXPERTISE

- ❖ Near earth space research
- ❖ Solar research, modelling space phenomena
- ❖ Changing Northern bioenvironment

ACKNOWLEDGED SPECIAL EXPERTISE

- ❖ Regional change in an increasingly international world
- ❖ Skills of human communities to act in northern conditions
- ❖ Sustainable economic and social development
- ❖ Challenges in interaction, communication and learning

ENVIRONMENTAL-FRIENDLY MATERIALS AND THEIR PRODUCTION

CREATING SUSTAINABILITY BY MATERIALS AND SYSTEMS



FOCUS AREAS

EARTH AND NEAR-SPACE SYSTEM AND ENVIRONMENTAL CHANGE



CHANGING NORTHERN ENVIRONMENT

UNDERSTANDING HUMANS IN CHANGE



SOLUTIONS TO CHALLENGES IN BORDERS AND INTERACTIONS IN THE 21ST CENTURY

CONTEXT-AWARE COMMUNICATION NETWORKS AND APPLICATIONS

ACKNOWLEDGED SPECIAL EXPERTISE

- ❖ Wireless, 5G
- ❖ Machine vision
- ❖ Optoelectronic sensors and spectroscopy
- ❖ Ubiquitous wireless sensors

ACKNOWLEDGED SPECIAL EXPERTISE

- ❖ Northern Finnish population and patient cohorts
- ❖ Cell-matrix-hypoxia interplay
- ❖ Health-ICT and novel imaging applications
- ❖ Protein folding, structure and biocatalysis, and metabolomics



ACADEMIC RANKING OF WORLD UNIVERSITIES
SINCE 2003

401 - 500, = 3th in

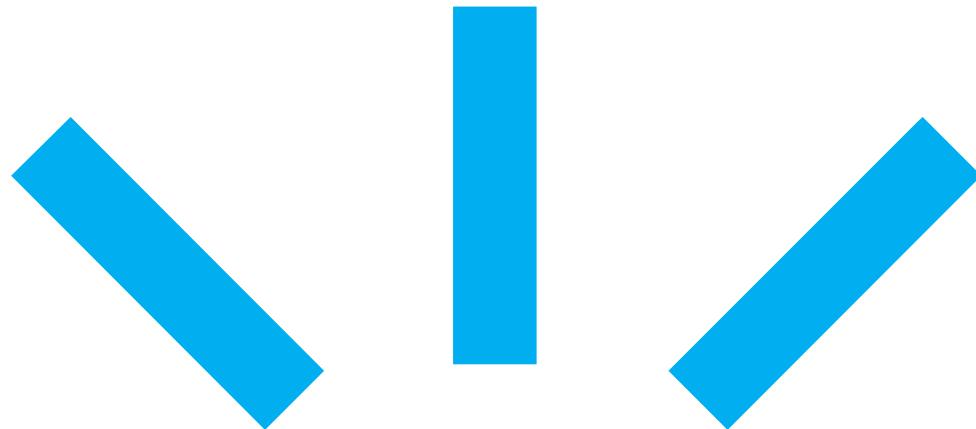


411 - 420, 8th in



201 – 250, = 2nd in



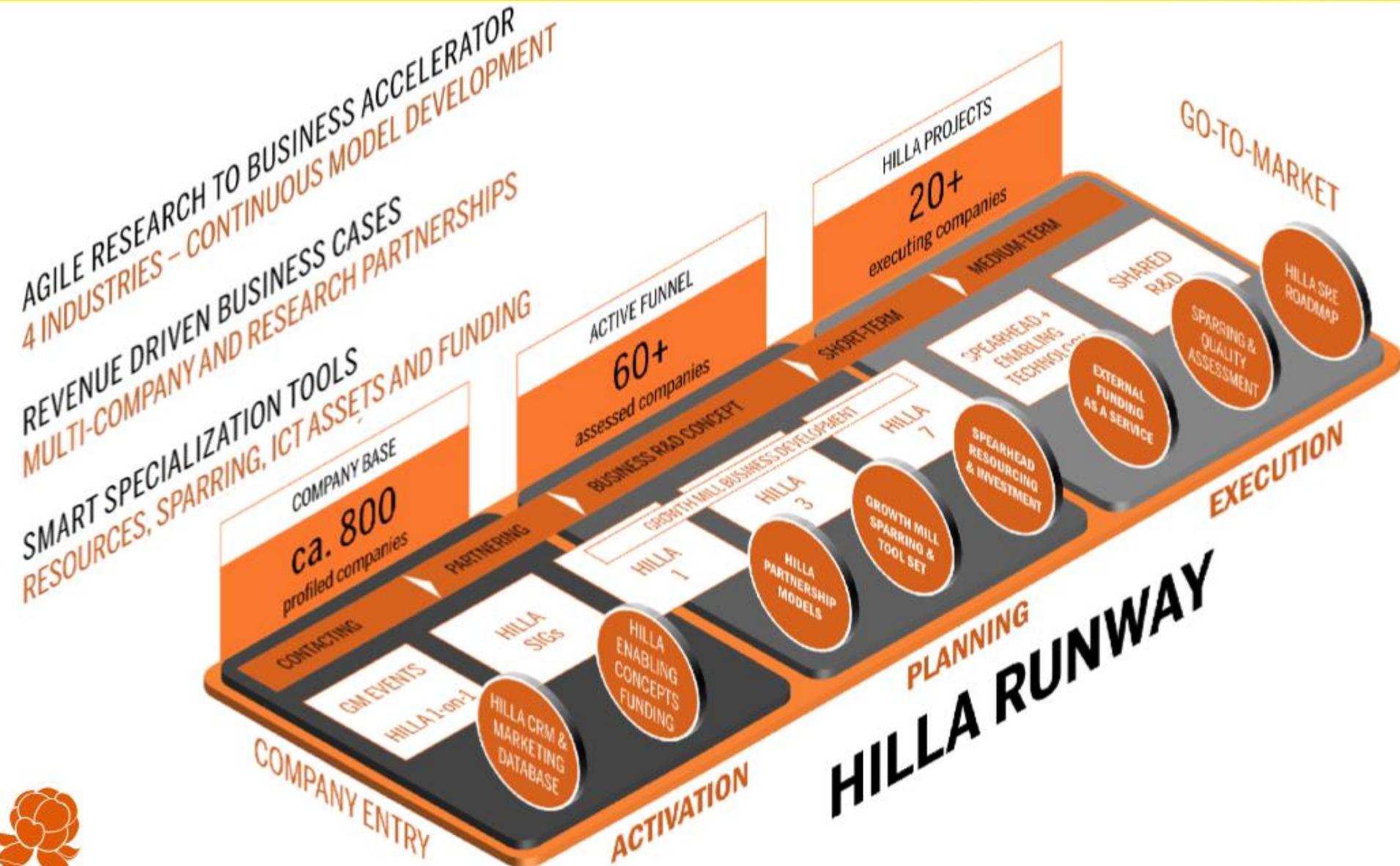


Additional slides

Boosting startups and SME to growth path



HILLA tools for acceleration



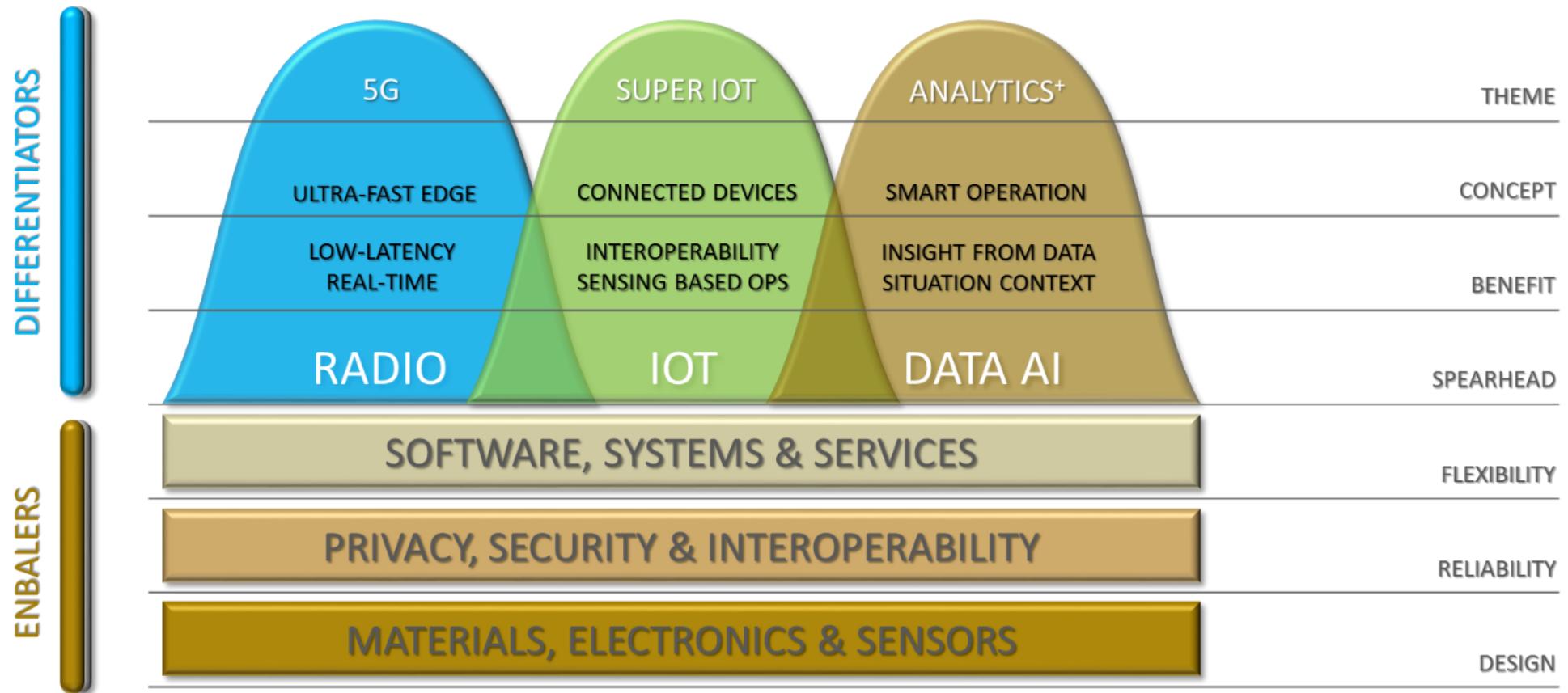


ICT ecosystem





Technological spearheads





Read more on net

5G Test Network Finland <http://5gtnf.fi>
SuperIoT <http://superiot.fi>
Data AI <http://analytics.plus>