



Towards Digital Paradise

**Session S1:
The Digital Transformation - IoT & Data**

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Knowledge Intensive Products and Services
VTT

VTT – Technology for business

VTT Technical Research Centre of Finland Ltd is the leading research and technology company in the Nordic countries. We provide expert services for our domestic and international customers and partners, and for both private and public sectors. We use 4,000,000 hours of brainpower a year to develop new technological solutions.

We develop new smart technologies, profitable solutions and innovative services. We cooperate with our customers to produce technology for business and build success and well-being for the benefit of society.

VTT is a non-profit organisation and a crucial part of Finland's innovation eco-system. VTT operates under the mandate of the Ministry of Employment and the Economy.



- Turnover 277 M€ (2014 VTT Group),
- Personnel 2,600 (1.1.2015 VTT Group)
- Business Areas
 - Knowledge Intensive Products and Services
 - Smart Industry and Energy Systems
 - Solutions for Natural Resources and Environment

Real-world IoT solutions from sensor to cloud



Data analysis for industry



Cyber security for the factory



Connectivity in challenging environments



Networked sensors



VTT spearhead programme: **Productivity with IoT**



**ASSET
MANAGEMENT**



**CONNECTED
HEALTH**



**DIGITAL
SOCIETY**

**Towards novel business
opportunities with IoT**

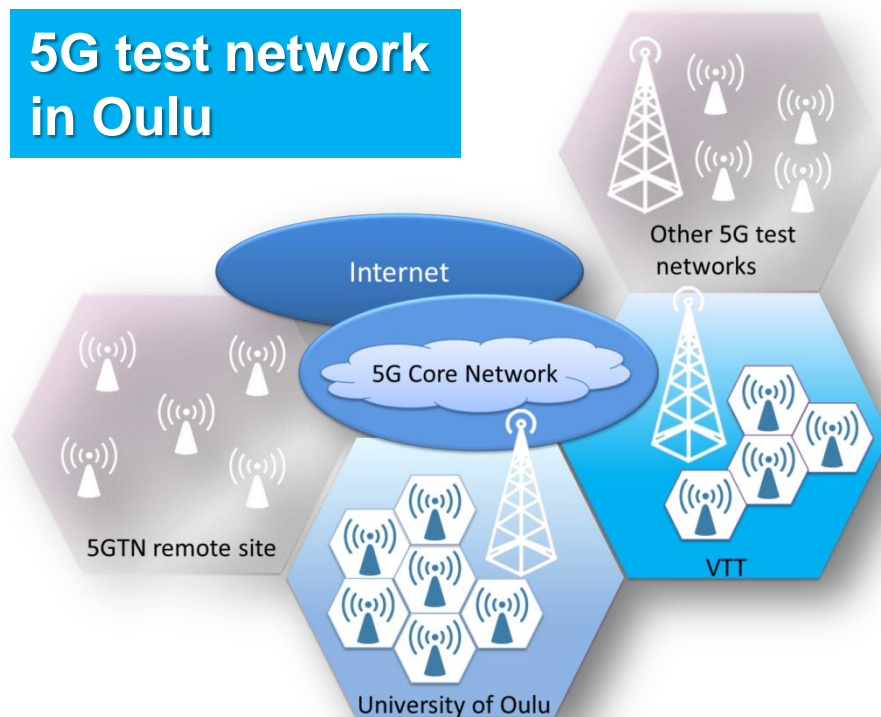
Mobile health and wellness service concept dose coach for MS disease medication

- Measures the medication level from serum sample by immunoassay
- Asks for symptoms and side effects to evaluate effect of medication
- Collects data to cloud service
- VTT's one-stop shop for creating new diagnostic solutions for the customers:
 - ✓ reagent development
 - ✓ development of analytical devices
 - ✓ personal health solutions



Leading R&D infrastructures and pilots in Oulu

5G test network in Oulu



HILLA PROGRAMME

- ICT business leverage
- Wireless ICT, Automotive, Health, and Industry
- 50M€/ 5 years

VTT
Pilot Factory

- ✓ Restricted network at VTT
- ✓ Open network at the University of Oulu
- ✓ IoT Pilot and Test Infras Plugging in and emerging from 5GNTN

The naked approach - the digital paradise

Gadget-free ubiquitous natural digital environment

- ✓ Providing all needed digital information, tools and services
- ✓ User lives *naked* without carrying gadgets
- ✓ I own and have complete control on my data
- ✓ My values are respected
- ✓ Digital privacy and domestic peace legislation

INTERNET OF NO THINGS



**SURROUNDINGS
AS A SERVICE**



TECHNOLOGY «FOR BUSINESS»

