BITTIUM VETURI PROGRAM Seamless and Secure Connectivity Ecosystem

BUSINESS **FINLAND**

Bittium



Program Targets

- To develop applicable 5G and beyond End to End digital infrastructures, systems and processes to achieve interoperable, seamless and secure connectivity and as a result cyber resilience for information security attacks
- To advance creation of medical end-to-end diagnostics (life-cycle) solutions with help of software intensive and machine learning / artificial intelligence technologies and significant improvement of development models.
 - Application into other mission critical areas (life-cycle solutions)





Focus Areas



Secure Encryption Technologies



Highly Secure Communications in the Future Networks



Secure End-to-End Verticals



Scaled Sensor Fusion Applications



Significant development models improvement



Transitions from devices to E2E services

Status 20.3.2024

Some 50 direct ecosystem partners in collaboration discussions

 Total volume of Veturi + related international projects network is some 70 M€ so far.



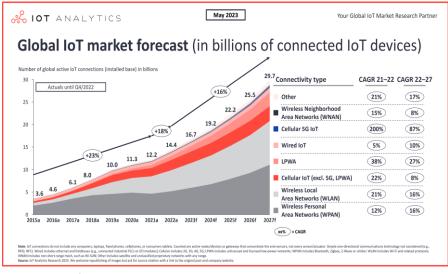
Program Roadmap

2023 2024 2025 2026 Vision 2030 **Secure encryption technologies Seamless** (Strong authentication and crypto technologies, ZeroTrust, End to End) **And Secure** 1 Co-Innovation project Connectivity proposal delivered **Highly Secure Communications in the Future Networks** (Seamless and Secure Connectivity over various network, development of cyber resilience) Seamless *and* Secure Connectivity 1 Co-Innovation **End to End Secure verticals** project started; (End to End (Device- Edge-Cloud) information secure architectures, simulated and verified CISSAN security) 1 Co-Innovation project started; PhotonWear **Scaled Sensor Fusion** 1 EU project under Grant (Utilisation of Sensor Fusion potentials and expanding sensoring opportunities) Agreement 1 Co-Innovation project Significant development models improvement under approval (RegOps, Devices-Edge-Cloud, adaptability to changing requirements) 1 Co-Innovation project proposal submitted 1 EU project proposal submitted Transitions from devices to End to End solutions & services (E.g. Medical remote diagnostics, mission critical life-cycle services, applications into other areas)

Medical Vertical

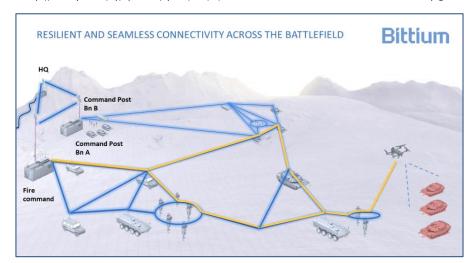


Examples of the Needs for Seamless and Secure Connectivity in 5G and Beyond

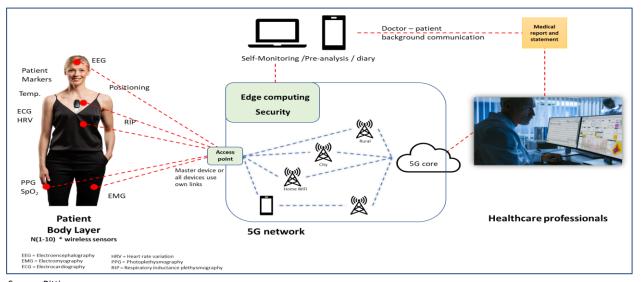


Source: IoT analytics, May 2023

https://iot-analytics.com/wp/wp-content/uploads/2023/05/Global-IoT-market-forecast-in-billions-of-connected-IoT-devices.png



Source: Bittium



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Examples for Research Themes in the E2E Context

- Roadmaps and technologies for future end-to-end secure encryption technology utilization
- Quantum safe technologies (e.g. PQC)
- Security approaches like Zero Trust
- Scaled sensor fusion and related technologies
- RegOps development methods
- Intensive use of ML/AI or modern LLM methods in a regulated environments, while maintaining security and safety aspects

