

A modern multi-story building with a glass facade and orange-brown brick sections. The Nokia logo is visible on the upper part of the building. The sky is blue with white clouds.

# Nokia Veturi Program – Unlock Industrial 5G

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Business Finland, September 3rd, 2021

## Nokia Veturi Program – Main Themes

System-on-Chip (SoC) – SoC architecture and novel technology enablers for the industry verticals & Technology enablers - Custom processor core development - open source approach (ASIP/RISC-V)

AI-Based Situational Awareness Intelligent and connected digital twin technology enablers in the industrial context

Mining - Industrial 5G for the connected mines: technology enablers and architecture, tele-remote mining, and common data enabling modeling

Energy - Future Distributed Architecture for Improved Smart Grid Monitoring and Control & Energy aggregation

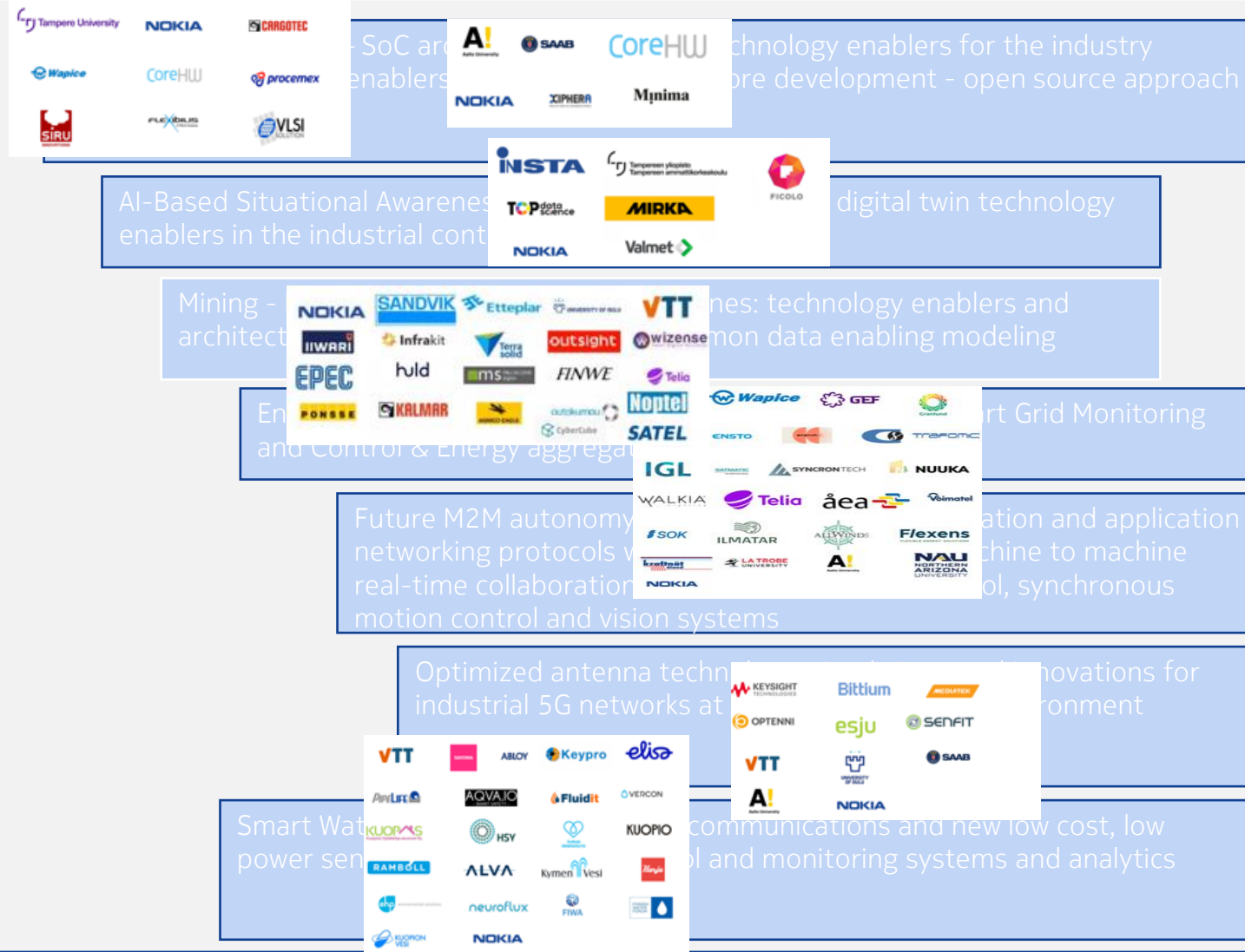
Future M2M autonomy - Time Sensitive Communication and application networking protocols with Industrial 5G, future machine to machine real-time collaboration, autonomous remote control, synchronous motion control and vision systems

Optimized antenna technology, simulations and innovations for industrial 5G networks at virtualized end-user environment

Smart Water - The use of low power communications and new low cost, low power sensors, smart meters, control and monitoring systems and analytics

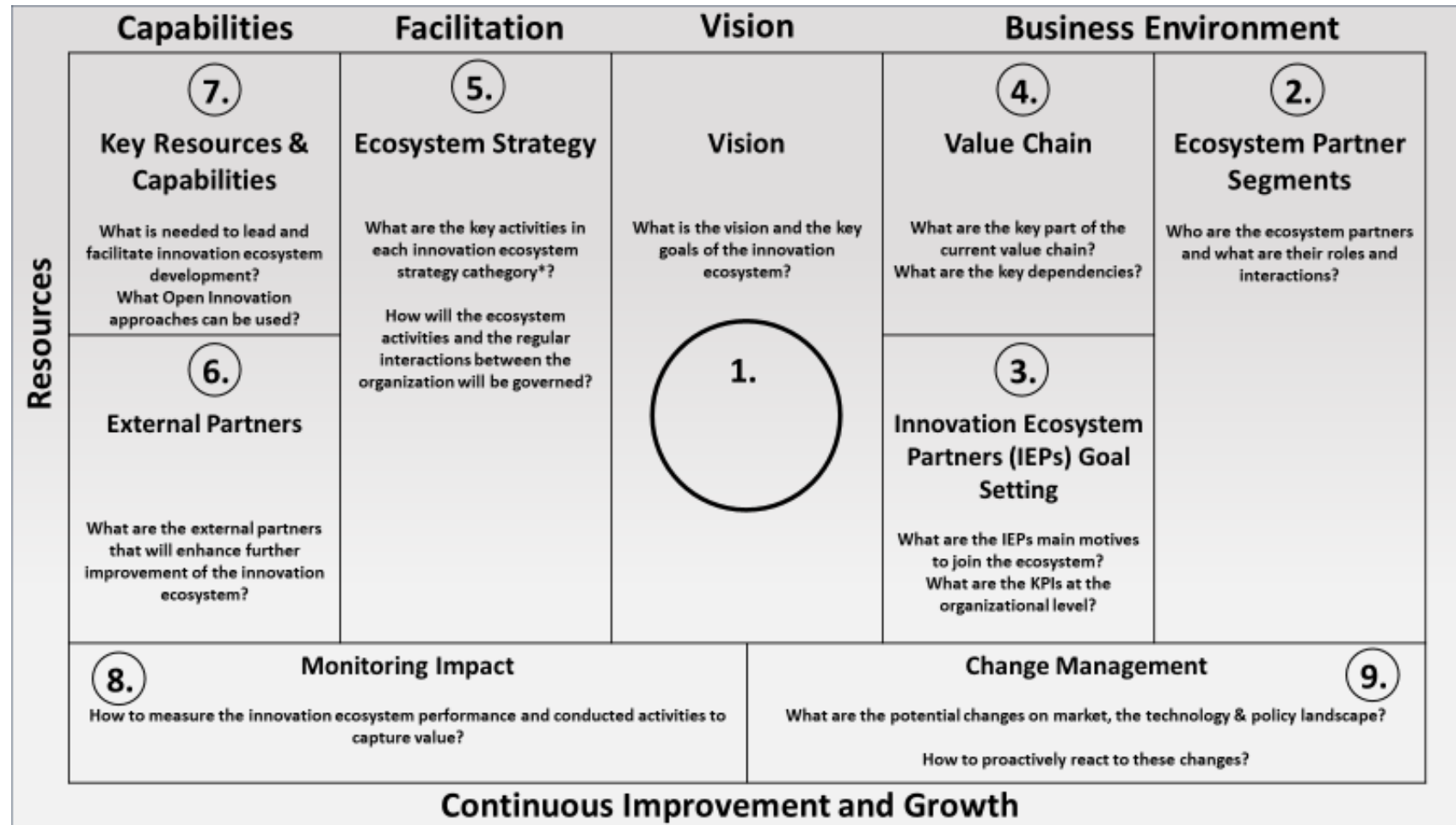
# NOKIA Veturi Program

## Nokia Veturi Program – Main Themes





# Systematic approach on Industrial 5G Ecosystem Building



Source: Pellikka et al. 2021. Fostering Innovation Ecosystem Development-Tools and Practices.

# Building global leadership on industrial 5G with the ecosystem partners

## Nokia and Finland's Tampere University join forces to develop 5G chipsets

Press Release

Nokia and Finland's Tampere University join forces to develop 5G chipsets

- Joint venture creates foundation for long-term development of silicon-based processors

6 October, 2020

Espoo, Finland – Nokia today announced that it has joined forces with Tampere University to establish a 'Center of Excellence' to enhance the development of System-on-Chip (SoC) custom processors for its ReefShark chipset portfolio.

## Nokia, Sandvik lead Finnish mining project to take industrial 5G deep underground

James Blackman • August 17, 2021 •

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Data, digitalization and the Internet of Things are transforming water management. Find out how an open IIoT architecture can help water utilities reap the benefits of digitalization in our new blog: <https://nokia.ly/3ux7qNo>



**NOKIA**

Data, digitalization and the Internet of Things are transforming water management

Blog by Stephen Major /



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**Nokia**  @nokia · 9 Jun

Today, @BusinessFinland has announced the launch of the AISA project, led by Nokia, to supercharge the adoption of #5G and #AI by Finnish industry.

Read more: [nokia.ly/3zoul1g](https://nokia.ly/3zoul1g)

**NOKIA**

Nokia to accelerate Finnish industry with 5G and AI applications





# Thank You!