Technopolis enjoys 30% energy saving on heating and 50% energy saving on ventilation with Lassila & Tikanoja and Connected Inventions' smart building solution on the 0G Network

The Challenge

As a leading provider of shared workspace environments, Technopolis wanted a solution to reduce energy consumption and CO2 emissions to improve customer value, advance sustainability reporting, and better meet its ESG goals in commercial buildings.

The Solution

In partnership with Lassila & Tikanoja and Connected Inventions, Technopolis deployed an IoT solution that remotely monitors and optimises ventilation, energy usage, and indoor air quality connected to the 0G Network.

The Results

The benefits of smart building solution of Technopolis include:

- 30% of energy savings on heating
- 50% of energy savings on ventilation
- Reduced CO2 emissions
- On-demand maintenance
- Optimal occupancy conditions
- Accurate ESG reporting
- Compelling ROI

0G Network Operator

Connected Finland

Connected Finland operates dedicated IoT networks powered by global Sigfox technology across Finland, covering 85% of the country's population. www.connectedfinland.fi/

Solution Partner

L&T **Connected Inventions**

Lassila & Tikanoja is a service company that makes the circular economy a reality by keeping materials, buildings, and factories in productive use for as long as possible and optimising the use of raw materials and energy to create customer, commercial, and societal value. www.lt.fi/en/company

Connected Inventions is a subsidiary of Connected Finland, that designs Internet of Things (IoT) smart building solution. connectedinventions.com/

Customer

TECHNOPOLIS

Technopolis is a shared workspace expert, delivering efficient, flexible, inclusive offices and business services including workspace design, reception management, meeting rooms, restaurant alignment, and cleaning solutions. technopolisglobal.com/

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your logo

(your name) is the Sigfox 0G Network Operator in **(your region)** (your website)

0G ASSOCIATION

0G Association is an international association of trusted, exclusive Sigfox 0G Network Operators, with extensive experience in local and global Internet of Things (IoT) deployments.

sigfox 0G operator

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Founded in Finland in 1982, Technopolis simplifies its customer' lives by providing high-quality, flexible office spaces supported by meeting rooms and business services such as reception management and cleaning. The company owns 16 campuses hosting 1,500 companies and 48,000 employees across Europe.

Motivated by the dual drivers to offer greater customer value and accelerate its sustainability goals and ESG reporting, Technopolis planned to introduce an intelligent solution to reduce energy consumption and CO2 emissions in commercial buildings.

Technopolis partnered with Lassila & Tikanoja (L&T) and Connected Inventions, a subsidiary of Connected Finland, to create a new Internet of Things (IoT) smart building solution.

Lassila & Tikanoja (L&T) and Connected Inventions partner to design and deploy a scalable smart building solution for Technopolis.

The Technopolis building management system (BMS) is the core of its smart building solution. The BMS is connected to L&T's Smartti Automation software, an intelligent building automation system that optimises a property's energy consumption through a central digital service. Smartti uses data from multiple sources, including IoT devices, a building's thermal mass readings, and weather conditions to adjust ventilation automatically and optimise energy consumption.

Integrating Smartti Automation with Connected Inventions AirWits Insight, an indoor air quality monitoring solution, added even greater value to the Technopolis solution. AirWits Insight uses a compact device powered by long-life batteries to remotely monitor a building's carbon dioxide (CO2), temperature, and humidity levels.

The device regularly sends few bytes of air quality data to the Smartti AI software via the Connected Inventions FoxerIoT cloud using the 0G Network, powered by Sigfox technology. The 0G Network is a global, public, low-power, long-range network enabling massive IoT designed for low-cost, energy-efficient device connectivity. The FoxerIoT cloud lets users track, view, and manage sensor data to improve decision-making from a rich visual dashboard enhancing the BMS.

> *The IoT sensor solutions enable L&T's Smartti Automation AI to optimise conditions and energy consumption even more effectively than before with regular and precise indoor air conditions within buildings. The multiplier effect brings further energy savings and consistent indoor air quality that is optimal for building occupants.*
> **Vantte Kenttä, Customer Relations Manager at Lassila & Tikanoja**

> *We recommended the 0G Network to connect Technopolis' IoT devices because it is easy to deploy, and provides energy-efficient, affordable, dependable connectivity. The environmental data collected from the sensor is centralised and visualised on a cloud-based IAQ monitoring platform and integrated with energy-optimisation software to enable demand controlled ventilation.*
> **Markku Patronen, Founder at Connected Finland and Connected Inventions**

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Smart building solution connects more than 1.000 IoT devices to the 0G Network and delivers significant savings and energy consumption for Technopolis.

In 2022, Technopolis deployed IoT devices running the Smartti Automation and AirWits Insight solution at the Ruoholati 3 property in Finland. Within months, data-driven insights enabled by the solution helped the building management team achieve significant operational outcomes,

Including overall savings of over

30%
in heating energy

50%
in ventilation energy consumption

Throughout the winter, occupants of the Ruoholati 3 property enjoyed a steady indoor temperature of 21C with an increase of comfort of 8.7 percent from the previous year.

Other data-driven outcomes of the Technopolis smart building solution include:

- Improved energy efficiency
- Reduced consumption during peak periods (high energy cost)
- Consistently comfortable and healthy indoor environs for occupants
- Proactive maintenance
- Better business and ESG reporting

The results of L&T Smartti Automation and Connected Inventions' IoT sensors' deployment have been so good that we've decided to implement it in other commercial buildings around Finland. In addition to energy efficiency, we were able to also confirm improved indoor air quality in the building property.
Ismo Myllymaki, Head of property management at Technopolis

The business value of building environmental data is not yet harvested today. The partnership between Connected Inventions & L&T demonstrate the exceptional commercial and ESG value we can deliver to our customers in a short timeframe when meaningful data are shared with the stakeholders who need it to make decisions. UnaBiz is committed to support the growth and global expansion of such Massive ESG enabler, and will continue to invest in scaling this solution to facilitate better energy efficiency and carbon neutrality in buildings as the world transitions to net zero.
Loic Barancourt, Chief Commercial Officer of UnaBiz