

The background of the slide is an aerial photograph of a large, calm lake surrounded by a dense forest. The trees are in various shades of green and yellow, suggesting an autumn setting. A layer of mist or fog hangs over the water and the forest, creating a serene and atmospheric scene. The sky is a clear, pale blue, indicating a bright but slightly hazy day.

WE MAKE THE CIRCULAR ECONOMY A REALITY

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Lassila & Tikanoja
2.11.2020

L&T IN 2019

NET SALES BY DIVISION



- **ENVIRONMENTAL SERVICES 39%**
Waste management, recycling, environmental management and renewable energy sources
- **INDUSTRIAL SERVICES 12%**
Process cleaning, environmental construction, sewer maintenance services and hazardous waste services
- **FACILITY SERVICES FINLAND 31%**
Cleaning, property maintenance and technical services
- **FACILITY SERVICES SWEDEN 17%**
Technical services and cleaning

EMPLOYEE NET PROMOTER SCORE

In 2019

73%

of L&T employees would recommend L&T as a workplace. **Our target is for more than 80 per cent of our personnel to recommend L&T as an employer.**

In 2019, L&T employees reported more than 54,000 observations to improve safety. **Our goal is zero accidents.**



CARBON HANDPRINT

The emission reductions produced by L&T's operations amounted to approx.

1.2 MILLION
tonnes CO₂ (eq.)



L&T's operations reduce emissions by an amount that equals the annual emissions generated by 120,000 Finns.

PERSONNEL AND OPERATIONS BY COUNTRIES



- **FINLAND 79%**
- **SWEDEN 17%**
- **RUSSIA 4%**



MAKING THE CIRCULAR ECONOMY A REALITY

TOGETHER WITH OUR CUSTOMERS

55,000

corporate customers and 120,000 households



14 MILLION
containers emptied

12,000 HECTARES
of managed forests

1.1 MILLION
maintenance actions

4,200
energy efficiency suggestions





WE MAKE CIRCULAR ECONOMY A REALITY

TO CUSTOMERS

We support our customers' responsibility, create excellent customer experiences and develop the best services in our industry.

TO EMPLOYEES

We take care of our personnel and provide them with meaningful work and opportunities for development.

TO SOCIETY

We combat climate change, bring forward new solutions for the circular economy and promote social responsibility through employment.

TO OWNERS

We aim for rapid growth in our business operations promoting sustainable development with our unique competence in the circular economy. In addition to pursuing organic growth, we invest in the markets of the future.

We increase our customers' properties value and user satisfaction.

We recycle the materials of society.

We utilize the side streams of industry and society.

We improve energy efficiency.



EMPLOYED BY
TOMORROW

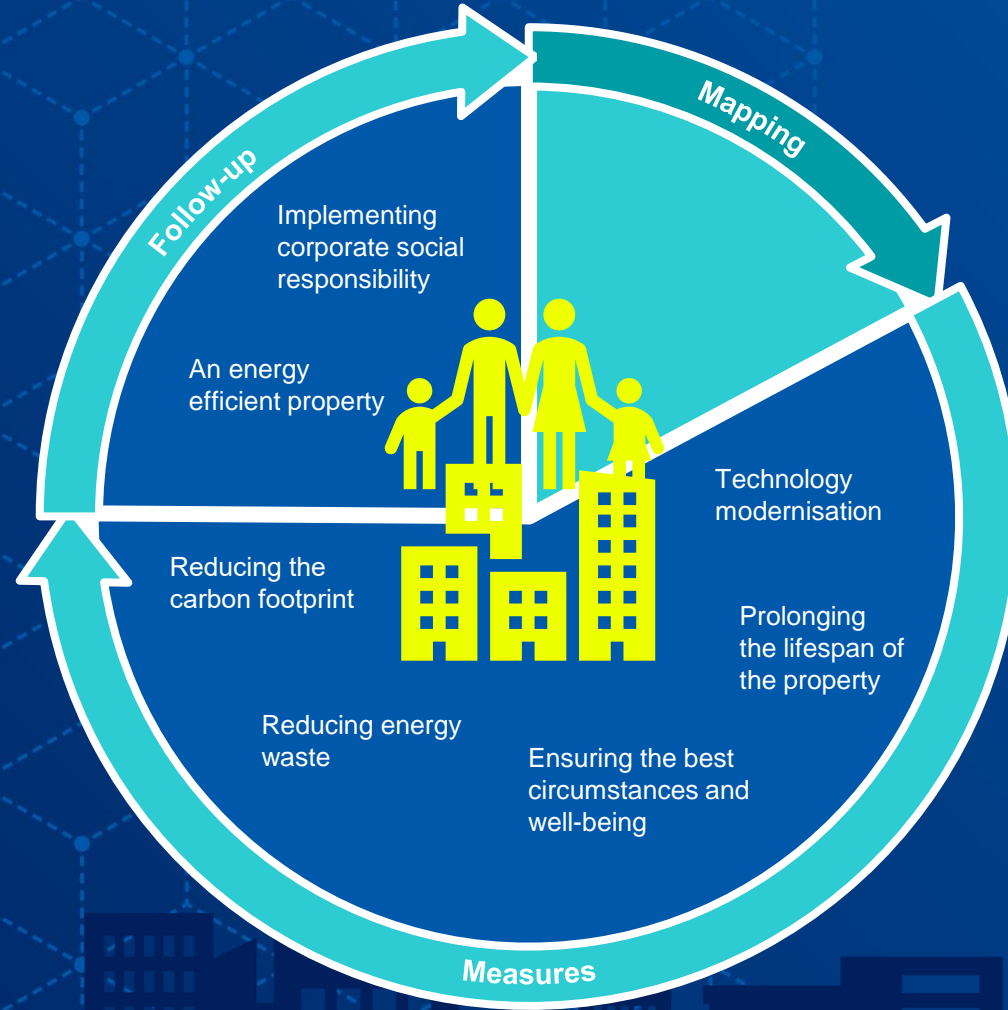
**REAL ESTATES CONSUME
APPROXIMATELY 32% OF
FINLAND'S ENERGY
CONSUMPTION AND 30% OF
FINLAND'S CO2 EMISSIONS**

RIL, Rakennetun Omaisuuden Tila 2019 -raportti



ENERGY EFFICIENCY FOR PROPERTIES

OUR CUSTOMERS



OUR FOCAL POINTS

- 1 Lower energy consumption
- 2 Corporate social responsibility
- 3 Customer experience and customer-oriented solutions

BUILDINGS IN DIFFERENT ERAS

Janitor era

1930 - 1980



Cost optimization era

1990 - 2015



Smart building era

2020 -

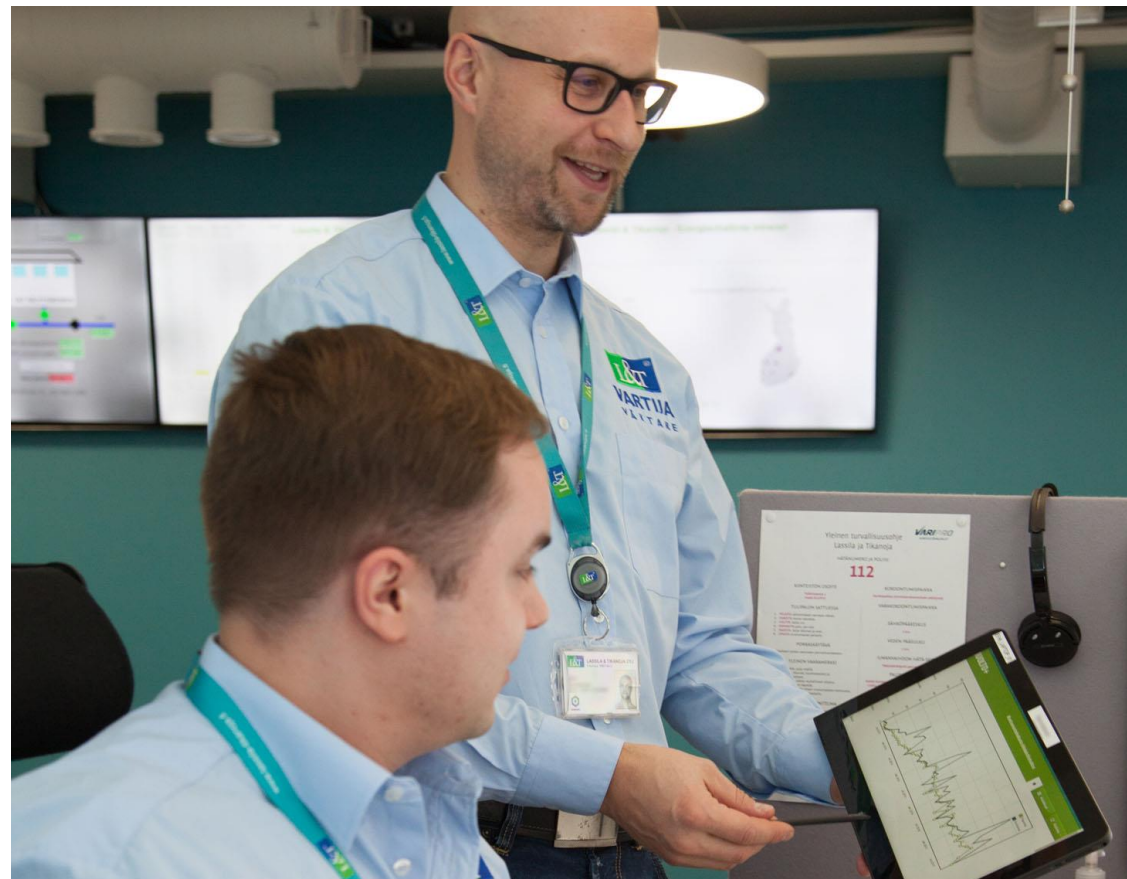
SMART BUILDING IS A NEW WAY OF THINK AND ACT

We have to invest in the user experience, the environment and the economy at the same time, and to harness technology to serve all these areas.



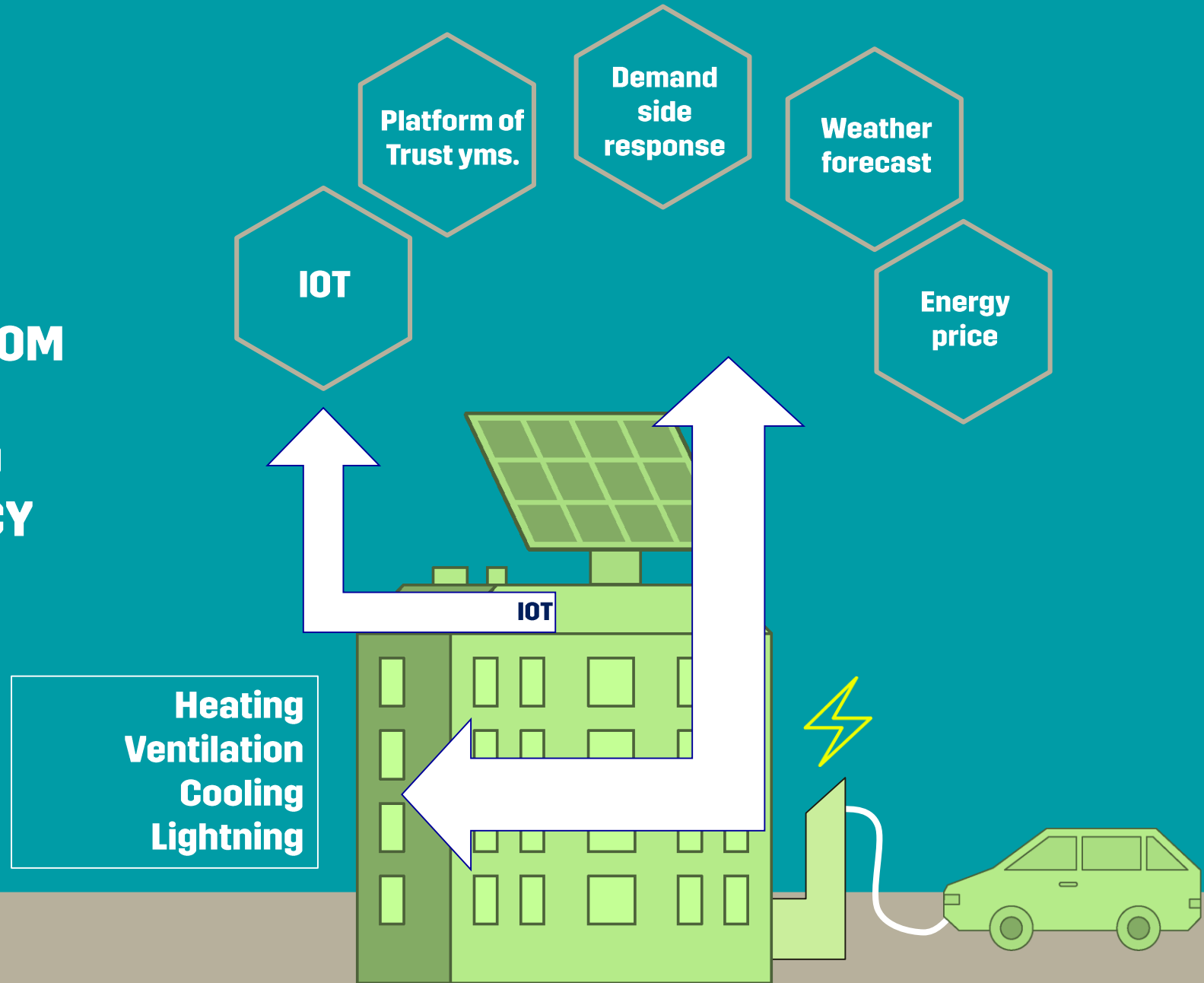
ENERGY EFFICIENCY IS KNOWLEDGE BASED MANAGEMENT PRODUCED BY COOPERATION

- Controlling energy efficiency requires systematic management ja measures during the life circle of a real estate
- Good planning and high quality construction creates a base to energy efficiency in real estates
- Even though the real save in energyconsumption is made during the maintenance
- Energy and eco efficiency and does not necessarily require substantial investments. Often just systematical operating will do the trick



SMART BUILDING

COMBINES INFORMATION FROM
INSIDE AND OUTSIDE
AND CONTROLS SYSTEMS TO
OPTIMIZE ENERGY EFFICIENCY



Customer case: Posti

Energy efficient with Smart automation system

Tireless and dynamic automatic control of HVAC systems results in

~25 % heating savings.

- Instant predictive adaptation to weather forecast, sunshine, outside temperature, etc.
- Stabilization of indoor climate and maximation of free energy use
- Learning software and endless data integration possibilities (e.g. IoT and demand response)



MAKING THE CIRCULAR ECONOMY A REALITY

SALO IOT CAMPUS FROM MAINTENANCE PERFORMANCE TO RESULTS

THE STARTING POINT

- A lot of data is collected on sites in the property industry, but the analysis and use of the data has not been as effective as it could have been
- The owner of the Campus was innovative and wanted to make a circular economy a reality
- L&T uses the Kiito ERP system, which contains a lot of data on the properties covered by maintenance services

THE SOLUTION

As part of the Virpa-D project, more sensors were installed on the Campus to monitor not only air quality but also the number of users. The information was used to anticipate cleaning and maintenance needs, for example.

Detailed information on the actions taken and their response times was logged on Kiito to achieve better results and further improve customer satisfaction.



FOCUSING ON THE RESULTS LED TO COST SAVINGS, ENABLED THE BETTER ANTICIPATION OF PROBLEMS AND IMPROVED SATISFACTION.



PREDICT ENGINE BREAKS BEFORE THEY OCCUR

- Motor condition is monitored in real time 24/7 using IoT sensors (vibration, temperature)
- The data is used to avoid problems caused by sudden engine breakdowns and to perform maintenance in advance, ie at the best possible time.
- Suitable for all engines
- Schedule maintenance at the best possible time



Thank you!



Employed by Tomorrow