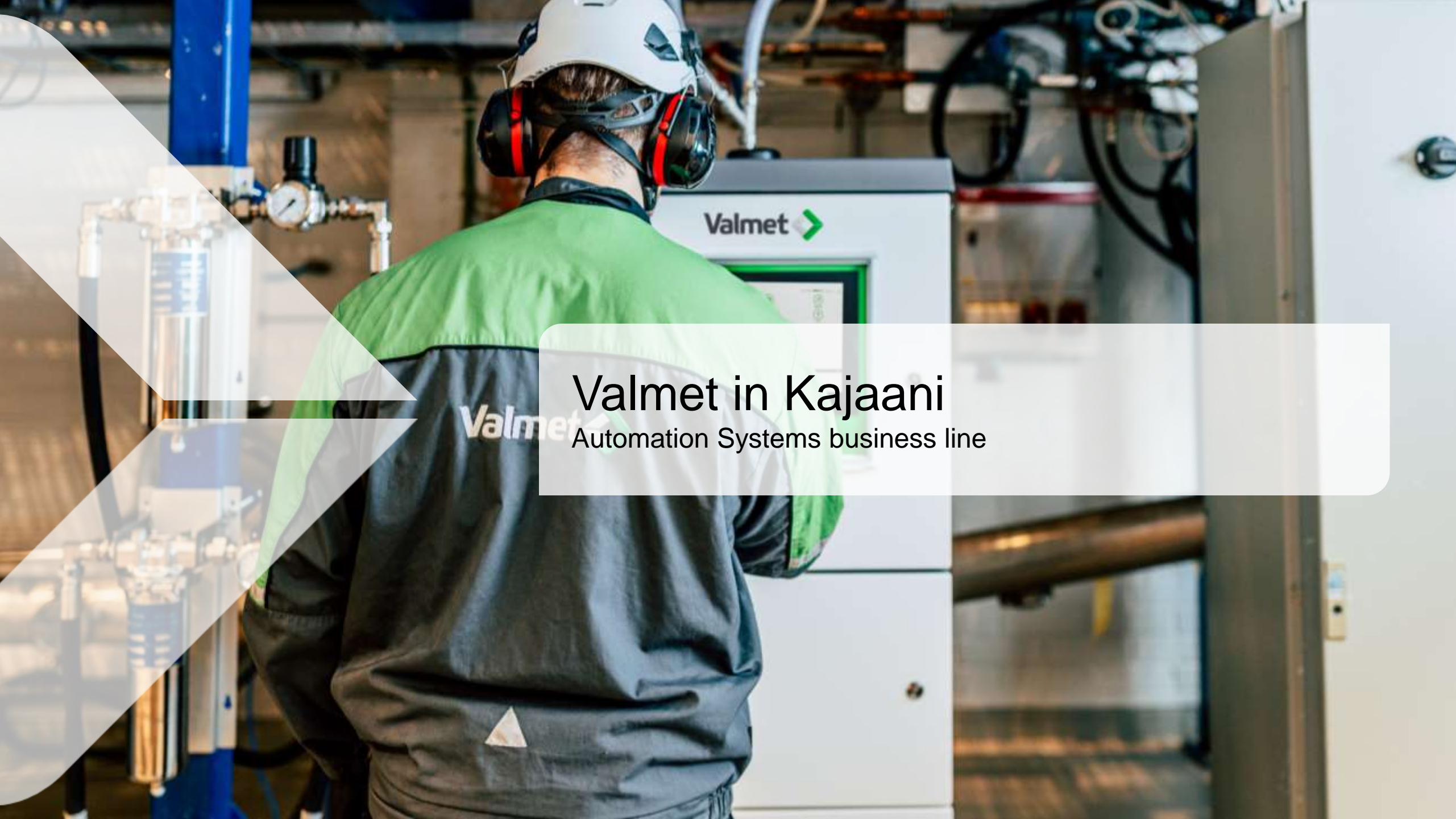




Innokaupungit datakeskusten syövereissä
26.11.2024 – Valmetin puheenvuoro
Tuotekehitysjohtaja Päivi Tikkakoski



Valmet in Kajaani

Automation Systems business line

Content

- 1 Valmet in brief
- 2 Automation solutions offering
- 3 History & the city of Kajaani
- 4 Valmet in Kajaani today
- 5 A proud member of Kajaani community



A woman wearing a white hard hat with the Valmet logo and clear safety glasses is smiling. She is wearing a bright green safety jacket with a Valmet logo on the chest. In the background, another person wearing a white hard hat and safety glasses is visible, though out of focus. The setting appears to be an industrial or manufacturing environment.

Valmet in brief

This is Valmet



Unique offering

- Market's widest offering combining process technologies, services and automation, consisting of automation systems and flow control solutions
- Research and development spend EUR 114 million in 2023



Market leadership

- Strong market position
- Pulp #2
 - Energy #1–3
 - Board #1
 - Tissue #1
 - Paper #1
 - Services #1–2
 - Automation
 - Automation Systems #1-4¹⁾
 - Flow Control #1¹⁾



Strong global presence

- Approx. 140 service centers
- 60 production units
- 32 R&D centers
- More than 19,000 professionals



Leader in sustainability

- Ten consecutive years in Dow Jones Sustainability Index
- Highest ranking in Ecovadis sustainability assessment
- Highest AAA ranking in MSCI ESG rating

Illustrative figures of the combined company.
1) In pulp and paper.

A strong financial profile and balanced business portfolio

2023 key figures of Valmet

Orders received
EUR 4,955 million

Net sales
EUR 5,532 million

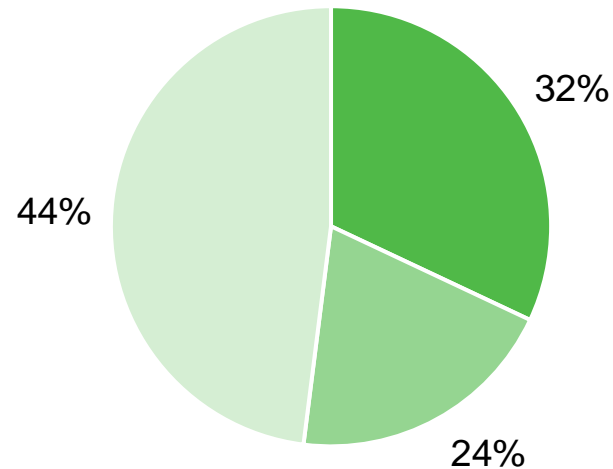
Comparable EBITA
EUR 619 million

Comparable EBITA margin
11.2%

Order backlog
EUR 3,973 million

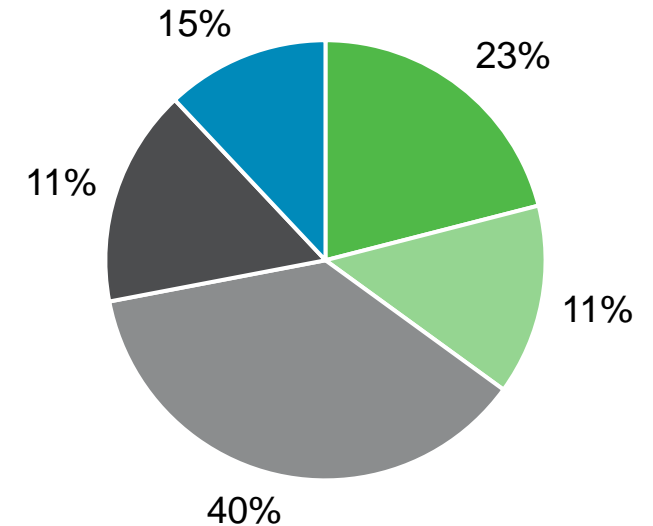
Employees
19,160

Net sales by segment



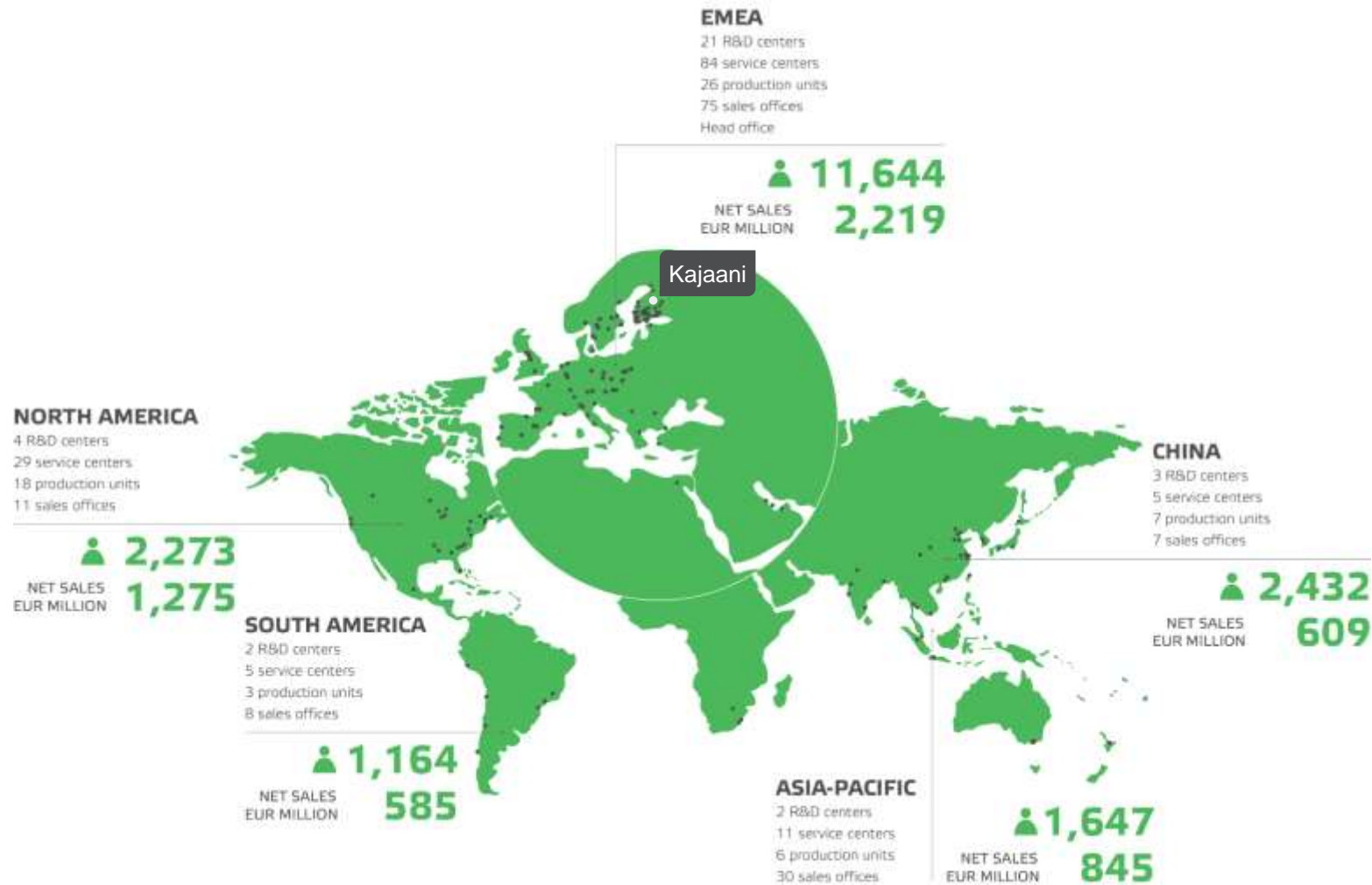
- Services
- Automation
- Process Technologies

Net sales by area





- North America
- South America
- EMEA
- China
- Asia-Pacific

Global presence creating a good platform for growth



 >130 service centers

 60 Production units

 32 R&D centers



Automation solutions offering

Industries we serve



Pulp and paper

Global leader in pulp and paper with the widest offering on the market.

More than 250 tissue lines, 150 board & paper lines automated, over 3000 QCS and profilers deliveries done since year 2000.

Over 100,000 analyzers and measurements delivered.



Energy

Leader in bio and waste-to-energy power plant automation

Decades of power plant automation expertise - over 1200 control system deliveries for different power plant types.



Marine

Over 40 years of expertise in marine automation with +850 marine automation systems delivered.

One of the world leading suppliers to cruise vessels with multiple references from the world's largest luxury cruisers .



Process industries

Award winning solutions for LNG and Biogas automation.

Decades of experience in wastewater treatment solutions.

Our offering for your automation and digitalization needs

Delivered as products and technology, projects and service agreements



Distributed control systems

Highly integrated automation system for process control and monitoring.



Industrial applications

Process performance control applications and condition monitoring.



Quality management

Quality control system, quality management applications delivering optimal quality.



Analyzers and measurements

For measuring and optimizing different variables in industrial processes.



Industrial internet solutions

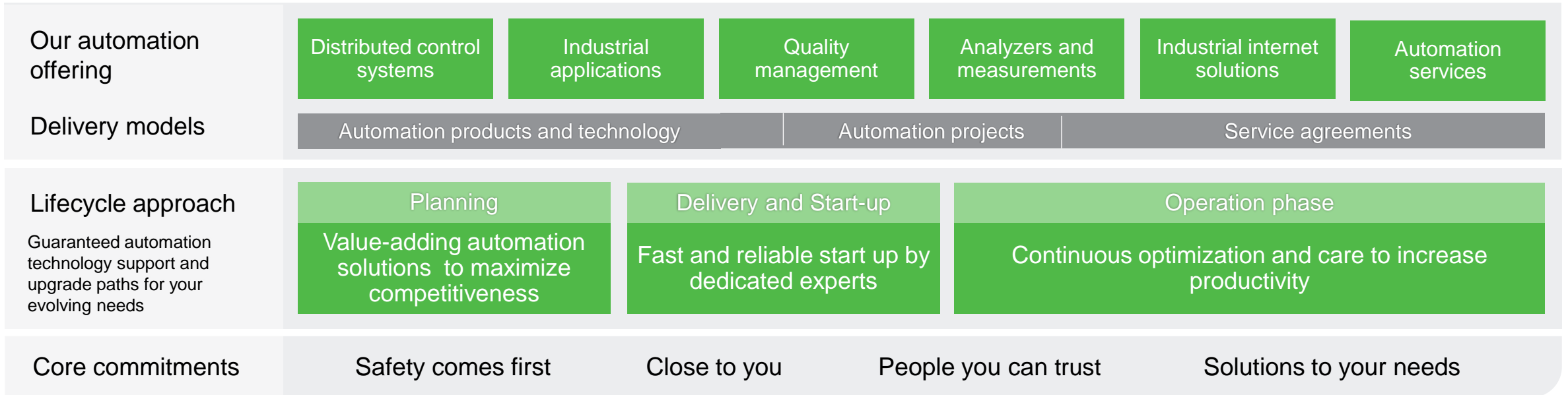
Advanced controls for analyzing, simulating and optimizing industrial production processes.



Automation services

Services for high availability, intelligent maintenance, process performance and risk control.

Intuitive and future proof automation solutions and services





History & the city of Kajaani

The city of Kajaani

- Kajaani is the **most populous city and the capital** of the Kainuu Region in Finland.
- The **population is just under 40 000**, and the city is located 550 km north of Helsinki.
- As Kajaani has its own airport, **visitors can easily take a direct flight from Helsinki to Kajaani**. There are also train connections from all cities in Finland.



The city of Kajaani



History

- The town was **founded in the 17th century** and was fueled by the growth of the tar industry.
- One of the main attractions is the Kajaani Castle that was built in the 17th century on the Ämmäkoski island of the Kajaani River in the centre of Kajaani. Today, **only roofless ruins remain of the castle** after Russian forces blasted the castle during the Great Northern War in the 18th century.



Events

- Despite its small size, **Kajaani has a full calendar of events** including Kajaani Poetry Week, Kuhmo Chamber Music Festival, the unique, and hilarious, Swamp Soccer World Championships, Vuokatti Hiihto Skiing Race, Kainuun Rastiviikko Orienteering Race, and Kajaani Tanssii Dance Event.



Activities

- Both **winter and summer sports are big in Kajaani**. Fishing, skiing, hiking, ice skating, among other activities are possible due to the vast natural resources surrounding the region.

History of Valmet in Kajaani

- The paper industry took off in Kajaani in the early 20th century in particular. Kajaani **Paper Mill was built in 1907 and was run by the firm Kajaani Oy**, which later was acquired by UPM. This local paper mill was the main employer in the region from until 2008, the year it was closed.
- **Kajaani Oy launches its electronics business in 1970.** After several acquisitions, it is today part of the Automation offering of Valmet, known as Analyzers & Measurements.



History of Valmet in Kajaani

Kajaani Oy Launches Electronics Business Development in 1970

- Together with development support from University of Oulu and possibilities of electrical components, processors and software development created faith in new business opportunities.
- The development started in Oulu and during 1972-1982, all operations were moved to Kajaani, where they remain until today.



Mr. Mikko Tähtinen,
CEO of Kajaani Oy, later UPM Kajaani Paper Mill

Proposed a new business to be built on Hi-Tec products and services based on new emerging technologies



Professor Matti Otala,
Oulu University, later head of NOKIA R&D

Publicly promoted Northern Finland Hi-Tec business opportunities and his influence was the catalyst for Kajaani Oy Electronics business launch



History of Valmet in Kajaani

1970

Kajaani Oy launches its electronics business

1980

First offices opened in Central Europe and North America

1982

Valmet acquires Kajaani Elektroniikka Oy

1982

First office opened in Japan

1989

Sensodec Oy is acquired by Valmet

1999

Metso created through merger of Valmet and Rauma

Acquisitions

1996 Procheck (today Valmet Alakali analyzers)

2000 PulpExpert (today Valmet Pulp Expert)

2008 Kemotron (today Valmet Conductivity Measurements)

2013

Demerger to Valmet and Metso

2015

Metso Process Automation Systems to Valmet



A worker wearing a yellow protective suit and a white helmet with a visor is operating industrial machinery. The worker's back is to the camera, and a "Valmet" logo is visible on the suit. The machinery is complex, featuring various pipes, valves, and a funnel. The scene is lit with a blue light, and a semi-transparent white box with rounded corners is overlaid on the image, containing the text "Valmet in Kajaani today".

Valmet in Kajaani today

Valmet in Kajaani today



Approximately **120 Professionals** working for analyzers, measurements, performance solutions, and condition monitoring systems



Product and business management

Services

Research and development

Supply center



Analyzers & Measurements

What do we do?

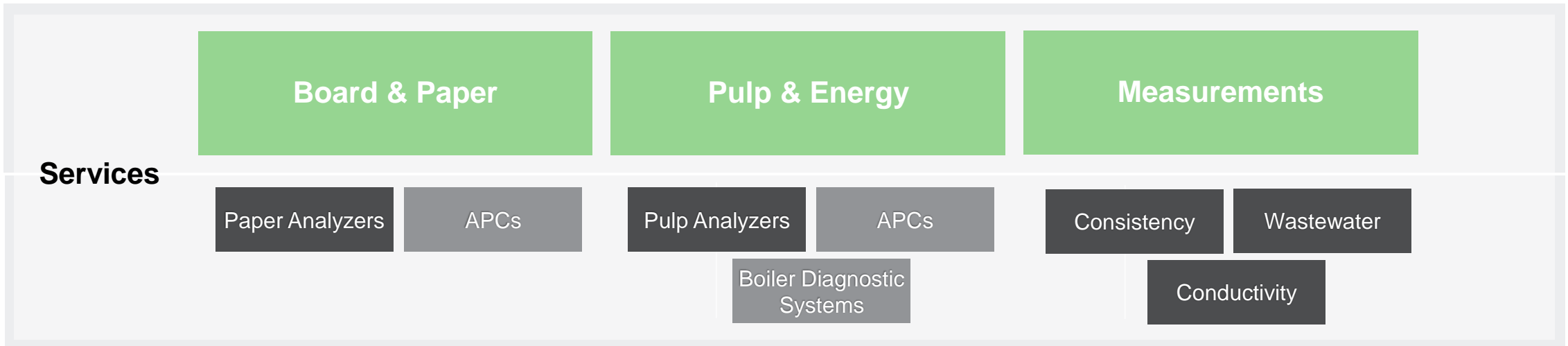
- In Kajaani we develop analyzers and measurement systems that provide **continuous and reliable information** about important parameters of our customers' processes. **Trustworthy process information is a cornerstone** for all data-driven applications to improve quality and performance.
- Our products are measuring key elements of the process both **inline and online, as well as in the laboratory**. The information that our customers get are valuable for them to make decisions on how to manage and optimize their whole production process.
- Our customers are historically **pulp, paper & board producers, and tissue makers**. Other customers belong to the **Energy sector** and other industries
- For more than 10 years now, we also expanded our offering to **Wastewater Treatment Plants**, where we are continuously increasing the Valmet brand name in this industry.



Analyzers, Measurements & Performance Solutions portfolio



Analyzers, Measurements & Performance Solutions



Analyzer and Measurement Solutions Portfolio

MEASUREMENTS



Valmet Microwave Consistency Measurement
An industry leading microwave consistency measurement for pulp and paper applications, offering a wide consistency range (0–16%)



Valmet Total Solids Measurement
Reliable and accurate real-time total solids measurement for wastewater treatment plants.



Valmet Rotating Consistency Measurement
Rotating shear force-based consistency measurement. Universal sensor for fiber consistency measurement that requires high accuracy.



Valmet Low Solids Measurement
Optical total suspended solids measurement for wastewater treatment plants.



Valmet Blade Consistency Measurement
Blade shear force based consistency measurement. Universal and cost-efficient sensor for fiber consistency measurement used in a wide range of applications.



Valmet Polymer Concentration Measurement
Optical inline based measurement for polymer concentration for municipal and industrial wastewater treatment.



Valmet Consistency Samplers
Reliable and safe sampler for all pulp grades and wastewater applications.



Valmet Optical Consistency Measurement
Optical consistency measurement for many consistency applications with operating range of 0.5 to 7 %.



Valmet Dry Solids Measurement
Microwave-based dry cake total solids measurement for wastewater treatment plants.



Valmet Optical Low Consistency Measurement
Optical consistency transmitter for low consistency applications.



Valmet High Solids Measurement
Microwave-based measurement over 30% solids for multiple industries including wastewater.



Valmet Conductivity Measurements
Conductivity, concentration, cooking liquor and causticizing measurements for demanding applications

ANALYZERS



Valmet Fiberline Analyzer
Multi-point analyzer for the entire fiberline, starting from blowline to final brightness. It measures Kappa, ISO brightness, HexA, lignin, fiber properties and shives.



Valmet Brightness Measurement
Inline brightness sensor for chemical and mechanical pulping, RFC/DIP, tissue, and mineral applications.



Valmet Retention Measurement
Total and true ash consistency measurement, ideal sensor for wet end monitoring and control.



Valmet Dirt Count Analyzer
Automatic dirt count analyzer of dry pulp sheets.



Valmet Brown Stock Analyzer
High precision kappa measurement with shive index and dual sampling points for production yield optimization.



Valmet Residual Measurement
Inline ClO₂ residual sensor.



Valmet Chip 'n' Bark Moisture Analyzer
A continuous chip moisture measurement to improve digester operation and cooking liquor dosage control.



Valmet Pulp Expert
Fully automatic online analyzer for complete pulp quality specification.



Valmet Peroxide/Filtrate Residual Measurement
Online ClO₂ residual and total/active peroxide sensor.



Valmet Filtrate Samplers
Filtrate sampler for continuous fiber free sampling e.g. with Valmet Polarox F/FP and pH measurement.



Valmet Wet End Analyzer
Modular, multiline analyzer for wet end management includes charge, consistency, chemistry and turbidity measurements.



Valmet Fiber Image Analyzer
Analyzer for the advanced measurements of fiber properties.



Valmet Cooking Liquor Analyzer
A modular analyzer for cooking process. White and black liquor alkali analyses based on standard laboratory titrations.



Valmet Recovery Liquor Analyzer
A modular analyzer for chemical recovery process. Green liquor, lime milk, white liquor alkali analyses and recovery boiler reduction degree analysis based on standard laboratory titrations.



Valmet Corrosion Reduction Analyzer
Measures total chlorine and sulphur concentration from bio power boiler flue gas and calculates S/Cl molar ratio for superheater corrosion risk evaluation.



Valmet Paper Lab
Automated paper and board testing analyzer with wide selection of industry standard tests.



Valmet Fiber Furnish Analyzer
Fast and reliable online pulp analyzer for freeness, fiber property and shive content measurement for control applications.



Valmet Recovery Ash Analyzer
An innovative online solution for measuring ash composition at the electrostatic precipitator (ESP) and ash treatment reject liquids.



Valmet MR Moisture Analyzer
Moisture analysis for pulp and paper, biofuel and minerals.



Research & Development

Research & Development for Analyzers and Measurement solutions

Our R&D team brings superior performance measurement technologies into reliable devices used in industrial conditions



A diverse team of professionals

- **More than 35 professionals in three teams**
 - Technology & Research
 - Product Realization
 - Product Development
- **Competences across the teams:** Measurement technology specialists, hardware designers, software designers, mechanical designers, electrical designers, testing & laboratory professionals, documentation specialists, project managers



Superior performance measurement technology

- Over 40 products
- More than 30 different measurement technologies across more than 80 applications



Globally recognized in the pulp and paper industries

- Long history in developing the best technology that **answers to the different process conditions of our customers**
- Some of our measurement technology have become the **standard at pulp and paper mills globally**



Supply Center

Kajaani Supply Center

Serving our customers globally



A diverse team of approximately 60 professionals

Kajaani Supply Center is made of the following teams:

- Analyzers assembly
- Measurements assembly
- In-house service
- Logistics
- Spare parts & stock
- Purchasing
- ISS (internal logistic)



Delivering products and serving our customers globally

- We are delivering **world class Analyzers, Measurements and spare parts' products** to our customers globally
- In our facility in Kajaani we do the **final assembly and the final testing** of our products
- We have a **spare parts hub and in-house service** to handle the needs of our customers



Our way of work

- In Kajaani Supply Center we follow the **LEAN principle in our work and the 6S approach** in our daily routine

An aerial photograph of a river winding through a lush green landscape. In the foreground, a stone tower sits on a small island in the middle of the river. The river flows towards the background where a city is visible, including a large white building and industrial structures. The sky is clear and blue.

A proud member of Kajaani
community

We are committed to the growth and development of our local community



- Our goal is to continue to be an active member in our local community, **contributing to creating opportunities for research, jobs, and other types of cooperation with different institutions and organizations** in Kajaani.



- We believe that **building strong ties with our community is essential to our long-term success.**
- We cooperate with several **local suppliers, sub-contractors, and research institutions** that are located near us.
- By collaborating with local organizations, we can help support the **prosperity of our community** and make a positive impact on the lives of those around us.

