



HansaMatrix

Electronics Manufacturing Monitoring

CASE STUDY





- Identifying unnoticed dust sources and temperature spikes
- Immediate identification of issues in an industrial environment
- Replacing paper logs with continuous measurement data

About HansaMatrix

HansaMatrix is one of the leading manufacturers of electronic systems and components in Northern Europe, serving industries such as transportation, telecommunications, energy management, IoT, medical, and defense technology. The company is also a local SAF Tehnika manufacturing partner, partially producing Aranet sensors at its facility.

With four production sites covering 16,000 square meters, HansaMatrix is recognized for its precision and ability to deliver high-quality products to global markets.

Ensuring Quality Through Environmental Monitoring



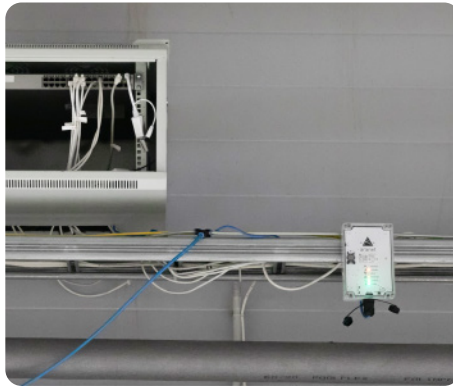
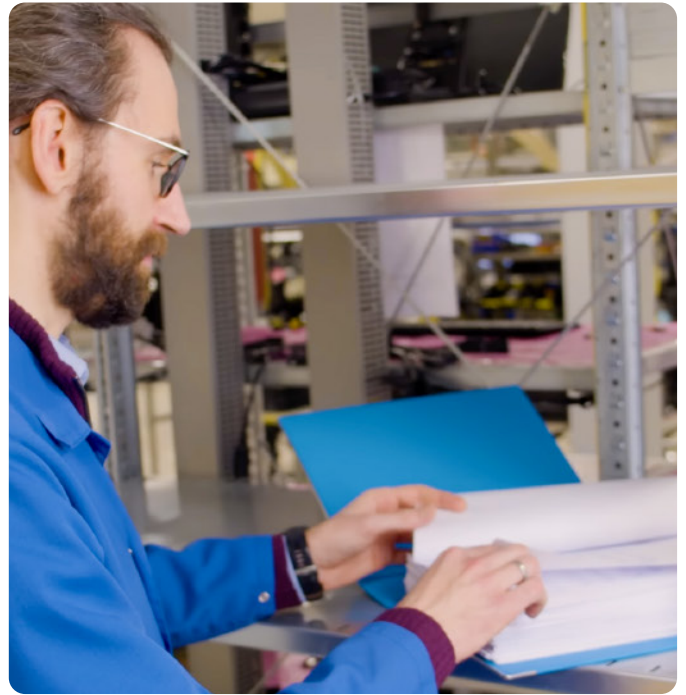
Līga Miķelsone, Advisor to the Board and Communications Manager at HansaMatrix, explains:

"Our advanced production lines require high precision to meet strict industry standards. Environmental conditions are crucial for maintaining quality, so reliable monitoring is essential. Clients often ask about our production environment, leading us to seek a more comprehensive monitoring solution. Since HansaMatrix employees had positive experiences with Aranet4 and Aranet Radiation Sensor products at home, the company explored implementing Aranet Pro series sensors."

Implementing Aranet

Key factors in choosing Aranet included real-time monitoring, which replaced manual paper logs, and the use of long-range (LoRa) wireless communication for stable data transmission—even through walls, metal doors, and workstations.

HansaMatrix deployed 14 sensors to monitor temperature, relative humidity, particulate matter, and radiation. The system provides instant alerts for deviations, allowing timely interventions. The flexibility of wireless sensors also enables easy adjustments as new monitoring needs arise.



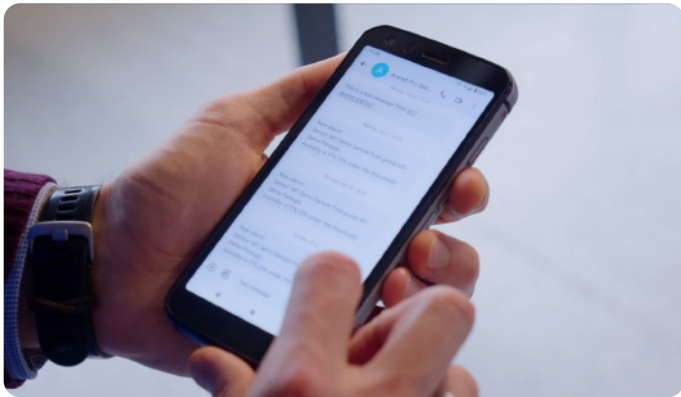
Results from Data Insights and Alerts



Audris Lukaševičs, Quality and New Product Introduction Manager at HansaMatrix, explains that implementing Aranet has significantly improved their response time to environmental changes, ensuring production quality and compliance with auditor and customer requirements. Eliminating manual data logging has also increased operational efficiency.

"One of our main concerns was temperature-sensitive storage. Aranet sensors now provide 24/7 monitoring, including nights and weekends. Automated alerts helped optimize refrigeration loading, preventing temperature fluctuations. Data analysis revealed that stocking refrigerators in smaller, more frequent batches ensured stability."

Particulate monitoring also provided unexpected insights. While certain areas were initially thought to have very low dust levels, sensor data revealed occasional spikes. The source? Computer cleaning. As a result, maintenance is now performed outside the production area, reducing contamination risks. Other small operational changes—such as opening specific doors after weekends to balance temperature faster—have also improved workplace conditions and reduced downtime.



*"If the base station loses connection, we receive an SMS alert," says **Lukaševičs**. "During a lighting improvement project, the base station lost power, but we were notified immediately and restored the connection. Additionally, with data stored both on the base station and in the Cloud, we have confidence that no data is lost."*

While most of the sensors help maintain a high-quality production process and prevent issues, the Radiation sensor ensures employees feel safe, especially since the facility also has X-ray equipment.



Conclusion

Given the success of the initial deployment, HansaMatrix plans to expand its Aranet monitoring system. *"The system runs in the background and is noticeable only when an issue arises—exactly as it should," concludes **Miķelsone**. "We trust the monitoring process, knowing it will alert us when action is needed."*



Design and manufactured by SAF Tehnika

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