



KALMAR MUNICIPALITY BRINGS CRITICAL DATA INTO A DATA PLATFORM AS PART OF ITS SMART CITIES INITIATIVE

BACKGROUND

Kalmar Municipality, located in south-eastern Sweden, comprises 15 local government units and 16 cities, including the city of Kalmar.

Like all local governments, Kalmar's data is spread across many legacy systems, making it very difficult to aggregate data into a single source to access accurate, consistent data to extract and deliver insights while maintaining or lowering overall costs.

Kalmar explored the potential of bringing this critical data together in the cloud using Microsoft's technology. By doing so, they could quickly identify and resolve problems related to service delivery while following strict compliance regulations and guidelines for data collection and governance, including GDPR.

AT A GLANCE

Company: Kalmar Municipality

Industry: Government

Employees: 5,001-10,000

Objectives:

- . Build a hybrid data platform in Microsoft Azure
- . Ensure full compliance with all established protocols and policies, including GDPR
- . Demonstrate the data governance and data lineage capabilities
- . Develop a robust data model to enable analytics and visualisation in Power BI

Products:

- . Azure Databricks
- . Azure Data Factory
- . Azure Functions
- . Microsoft SQL Server
- . Microsoft Purview

CHALLENGE

Kalmar had been working on a project with Microsoft to collect data from multiple legacy system sources but needed a secure place to store it – a data platform. Microsoft introduced their partner, Nexer Insight, to Kalmar to explore different options for data management while ensuring full compliance with all established protocols and policies for the protection and management of this data.

To pilot the platform and demonstrate value early, surveys were conducted across Kalmar's departments to identify use cases expected to drive significant value.

The use cases chosen were:

1. Investigating the connection between food waste and sound levels in schools and restaurants, and,
2. Tracking and analysing domestic and business refuse collection operations, including real-time route information, issues faced by trucks, and factors that contribute to bins not being emptied, such as weather and attendance.

SOLUTION

Together Nexer Insight and Kalmar created an Azure hybrid data platform using SQL Server and Azure Data Factory to standardise and share data. The platform was designed to comply with GDPR and include data from on-premises SQL environments and IoT sensors on a LoRaWAN network. A proof of concept for Purview was also implemented for data lineage tracking and data governance.

“THE IMAGINATION THAT SETS THE BAR FOR WHAT CAN BE DONE.”

- Customer Feedback (Internal User)

POWER BI REPORTING SYSTEM EXAMPLES

Image 1 shows KPIs regarding the food waste application in Tallhagsskolan school in Kalmar municipality

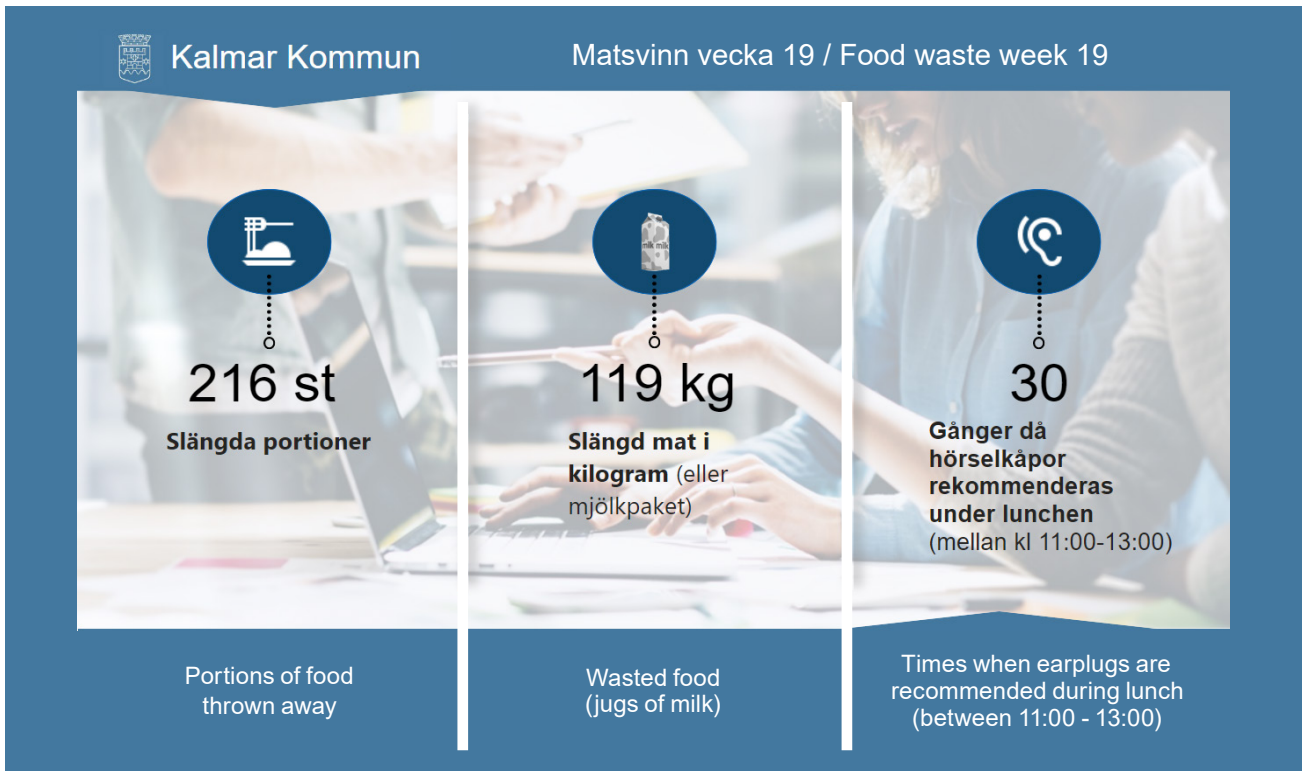
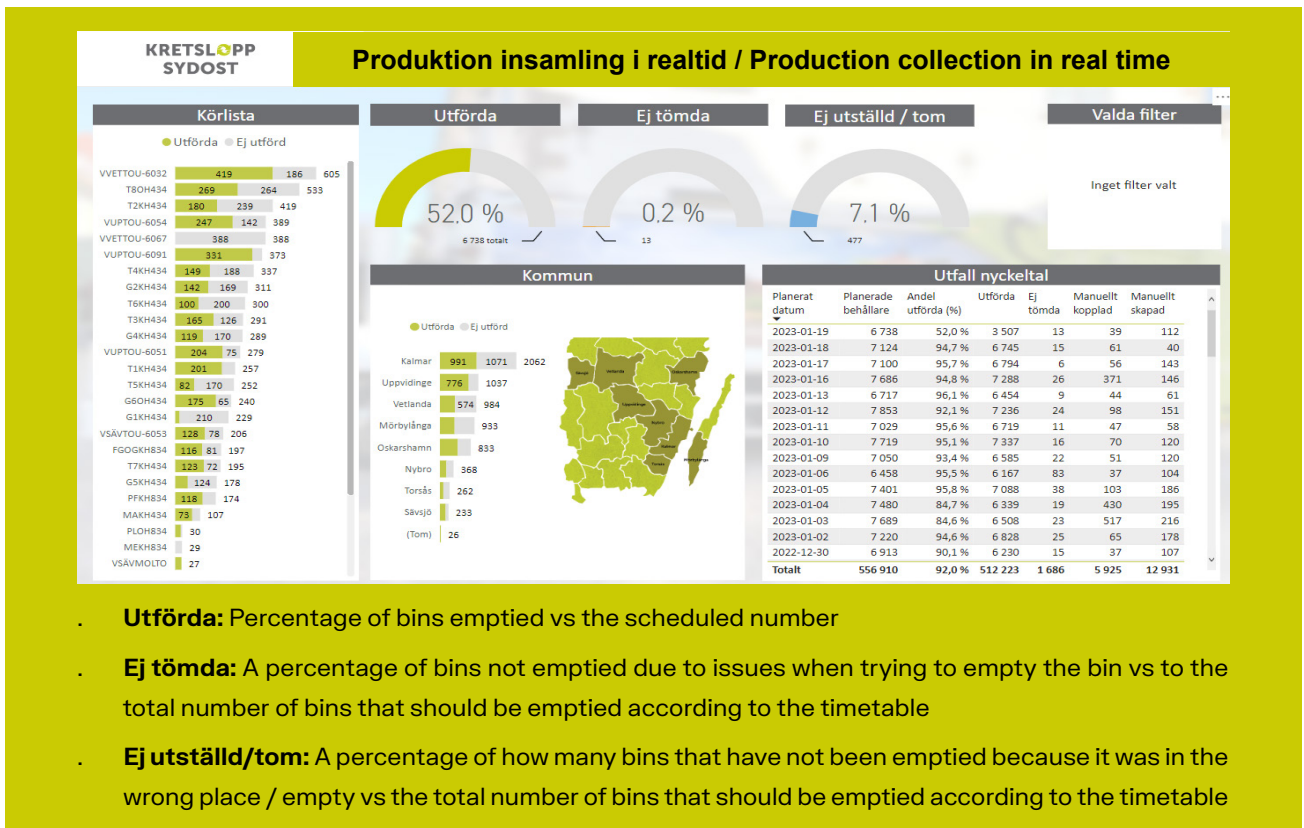


Image 2 shows KPIs from Kretslopp Sydost (domestic and business refuse collection company) per day



RESULT

Nexer Insight successfully created a Hybrid Data platform featuring two mirrored structures, one on-premises and the other in the cloud, with a steadfast commitment to security. They have also fully complied with GDPR by implementing stringent measures when transferring data between on-premises and the cloud.

Kalmar is still amidst the ongoing refuse collection project, and they continue to be satisfied with the valuable insights they gain from the data.

The team reviewed multiple use cases and decided to shift their focus to visitor data, examining weather, events, days, and visitors to determine if they are attracting the desired audience. This information will offer insights into the future of specific events, with the project still in its developmental stage.

“ Building a data-driven approach to government takes time and talent but is absolutely essential. This approach is crucial to making the best, most informed decisions for your municipality in today’s data-rich world. Through its hybrid data platform, Nexer Insight helps organisations, including governments, build their data-driven practices by getting data, no matter where it resides, to those needing it. ”

-Carl Tonseth, Business Manager IoT & AI, Sweden



Find out how Nexer Insight can help your organisation:

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