Nordic firms make waste management smarter

Swedish machine-to-machine communications specialist Maingate has teamed up with waste-equipment manufacturer Europress to haul wastecollection containers into the modern age.

Waste management in northern Europe is the latest economic sector to get smarter. Maingate integrates telecommunications and Internet technology to connect devices and manage them remotely. It is one of the world's leading independent machine-to-machine (M2M) providers with offices in Oslo and Amsterdam as well as Sweden. Finnish firm Europress is a top producer of waste-management equipment in the Nordic states, with operations extending into Sweden, Norway, Denmark and Russia.

Together the two form a powerful team. Their joint innovation is to equip Europress wastecollection containers with sensors that transmit a signal when they are nearly full and ready for collection.

The containers are typically found at supermarkets and shopping centres, where they store huge amounts of cardboard waste. They are more than just bins – they are machines that compact the cardboard so it takes up as little space as possible. "Our business idea is that we help our customers avoid transporting air," says Timo Huhtala, head of development at Europress.

Integrating M2M technology makes the waste-collection process even more efficient – and further reduces costs for customers and the environmental impact. Because the new containers launched at the end of 2010 emit a signal that is transmitted to a transporter when they are nearly full, the transporter can drive up to empty the container at exactly the right time. This avoids unnecessary journeys to empty half-empty containers and unnecessary delays to empty over-full ones.

The travel that can be avoided by Maingate's and Europress' innovation is clearly positive for the environment. Road transport is one of the biggest polluters of the air in cities, contributing to a higher risk of respiratory diseases such as asthma through vehicles' emissions of particulate matter for example. There also remains enormous potential to reduce greenhouse gas emissions in road transport through more efficient logistics as well as more efficient vehicles.

"Another benefit is that we can handle many smaller service actions without sending out a technician," adds Mr Huhtala. The M2M technology allows the containers to be monitored but also in part serviced remotely such as through remote upgrades. Again, this saves on transport. For customers, it means containers are out of action for shorter periods, making them more reliable.

Cardboard packaging is the most common type of waste handled by Europress machines, but they can also deal with plastics and biodegradable waste from restaurants for example. This flexibility increases the potential impact of the M2M technology. Shopping centres are Europress' biggest customers, but municipalities also rank as clients. The lifespan of a container is around ten years.

More information:

Europress: http://www.europress.se

Maingate: http://www.maingate.se

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