



Protecting People and the Environment with Intelligent Video Technology

Effective total solutions for companies in the waste management industry

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Langmeil, June 2022 - Waste management and recycling have long since become an important industry. According to forecasts, the waste and recycling industry will grow worldwide in the medium term. In Germany, for example, waste management sales are expected to rise from 40.8 billion euros (2020) to 42.5 billion by 2025*. A wide variety of materials, bulk materials, hazardous and recyclable materials have to be deposited, sorted, separated, processed, stored and recycled. In the process, the companies - whether landfills or incineration plants, recycling and processing companies, recycling centers, or in-house waste and recycling points - perform various tasks associated with numerous hazards and risks. MOBOTIX is already proving in multiple waste and recycling companies how its intelligent video technology protects people and the environment, increases operational safety, and prevents damage of many kinds. MOBOTIX has always supported end-of-life management, i.e., the consideration of the entire life cycle of a product, and continues to drive this forward. Thus, solutions that further optimize the circular economy fit perfectly into the MOBOTIX corporate strategy.

Fire protection: MOBOTIX now has VDS-certified thermal radiometry solutions

The many different materials that come together in the waste and recycling industry pose a risk, as they may react chemically with each other. Waste, stored in large halls or even on outdoor premises, can cause fires due to environmental and weather influences. For example, organic waste can - due to fermentation processes - quickly lead to considerable damage. In particular, electrical waste and used batteries are a fire hazard here. Therefore, round-the-clock monitoring is essential, and MOBOTIX offers a [VdS**](#)-certified solution.

Thermal Radiometry (TR) cameras from MOBOTIX with calibrated thermal image sensors measure thermal radiation in the entire image area and trigger a so-called "event" when limit values are exceeded. This can be an alarm, a network message, or the direct initiation of a fire extinguishing system. The sophisticated MOBOTIX video technology thus detects fire sources by capturing critical temperature thresholds before they occur. This way, the spread of fires can be effectively fought and, in some cases, even prevented.

* Sources include Branchenanalyse Abfallwirtschaft, Hans Böckler Stiftung & Trends in Solid Waste Management der Weltbank und Statista Branchenreport.

** VdS Schadenverhütung GmbH is Europe's largest institute for corporate security.

Perimeter protection and occupational safety with MOBOTIX

Waste, primarily recyclable and recycled materials, now have an enormous value that attracts thieves. Therefore, landfills and collection points must be guarded and secured around the clock to prevent the theft of recyclable materials. In addition, security regulations for employees and visitors apply on the grounds of waste and recycling operations and must be observed at all costs.

Where security and surveillance personnel used to be deployed here, MOBOTIX provides a reliable and cost-effective solution. MOBOTIX video systems for perimeter protection help detect intruders - day and night and in all weathers.

MOBOTIX can even help with occupational safety. For example, the cameras can detect when helmets or vests are worn and automatically issue appropriate notices.

Supporting processes: MOBOTIX controls traffic and levels

MOBOTIX video technology can also help to improve processes and thus make operations more economical. For example, intelligent video analysis can automatically detect fill levels of pouring pits or containers. This reduces the workload of personnel or can provide valuable information for optimizing the site (if, for example, particular areas are not being fully utilized). Access control and documentation of vehicles can also be simplified and optimized using automatic license plate recognition.

Robustness and reliability predestine MOBOTIX

Environmental conditions are particularly harsh in waste management. Dust, dirt, weather influences, and changing light conditions require highly robust and reliable video systems. The housings of MOBOTIX cameras protect against moisture, corrosion, and pollutants. Highly sensitive optics, thermal sensors, and intelligent apps master even the most challenging optical conditions. The failure-free service life (MTBF) of MOBOTIX cameras is more than nine years.

CONCLUSION

"MOBOTIX has defined waste management as a significant market for many years. Here, it is not only a matter of protecting people and recyclable materials. The waste and recycling industry is of utmost importance for our environment and the sustainable handling for our future," says Thomas Lausten, CEO of MOBOTIX AG. "Whether it's fire protection, site protection, occupational safety, or process optimization - our entire range of video technology solutions is used in the waste management industry. Developments we achieve here with our innovations always find a practical application in other industries, which is why Waste Management is a key market for MOBOTIX," Lausten continued. And: "Companies in the waste and recycling industry can therefore be sure that with MOBOTIX, they are using a solution that is not only state-of-the-art but also so technically mature that it will be able to master future challenges that cannot even be foreseen yet, thanks to app and software updates."