

Robotic arm helps Limburg-based company with demanding precision work

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Traflux is testing a mobile cobot to finish plastic lids

At Traflux in Houthalen-Helchteren, a waste container manufacturer and waste collection specialist, a mobile robotic arm is working alongside employees on the shop floor this month. For several weeks, it is taking over some of the demanding precision work: removing sharp edges from plastic parts, a process known as ‘deburring’. The test is part of the COBOTASSIST project by Interreg Flanders-Netherlands. Sirris provides the technical guidance, while POM Limburg supports the participating Flemish SMEs.

Traflux manufactures waste containers with capacities ranging from 100 to 5,000?litres, using a technique known as rotational moulding. Openings have to be cut into the plastic lids of these containers. At the moment, this is still done by hand: first milling, then smoothing the edges. It’s physically demanding precision work and a single wrong move can instantly render a component unusable.

This month, Traflux is testing whether a cobot can take over this work, so that staff can focus on tasks with higher added value. The robot simply stands amongst the other machines on the shop floor, right in the thick of the factory's day-to-day operations. 'Above all, we wanted to see how a cobot like this performs in a real production environment,' says Maarten Conings, Production Manager at Traflux. 'We have earmarked a budget of €500,000 for automation and digitalisation in 2027. This experience helps us to make informed choices that have a tangible impact on quality and lead times.'



Not just a problem at Traflux

Traflux is not the only company facing this challenge. More than 7 in 10 steel or plastic products require further finishing after production: they have to be sanded, polished or deburred to remove sharp edges and unevenness. On average, this accounts for one-fifth of the production time and up

to 15% of the cost price. Yet even today, in 8 out of 10 cases this work is still done by hand – precisely the sort of job for which it is becoming increasingly difficult to find staff.

For many manufacturing companies, this is a tricky balancing act. Customers expect products that are high quality, tailor-made, yet delivered quickly and affordably. It is precisely the final manual step in the process that makes it difficult to meet all these expectations at once.

Try it out without having to buy straight away

Cobots are well suited to this sort of work. Unlike traditional industrial robots, they can “sense” how much force they are applying, which comes in handy when sanding, polishing or deburring. However, safety must always be guaranteed, based on a risk assessment and appropriate measures.

Through the COBOTASSIST voucher scheme, SMEs in Flanders and the Netherlands can trial a mobile cobot like this in their own factory for a few weeks, with support from the project team. This way, they can see for themselves whether the technology works for them, without having to buy a machine straight away. Traflux is the first company to implement a voucher scheme like this. ‘Cobots can be a useful addition for tasks that are physically demanding, repetitive or ergonomically stressful,’ says Jan Kempeneers, Principal Engineer for Smart Manufacturing at Sirris. ‘Nevertheless, for many SMEs, the move towards automation is still a big step. By allowing companies to test the technology in their own production environment first, they gain a realistic picture of both its capabilities and the issues involved.’



Convincing Limburg-based businesses

POM Limburg and its project partners are therefore committed – along with workshops and training courses – to familiarising Limburg's manufacturing companies with cobot technology. 'Many companies recognise the potential of automation, but aren't quite sure where to start,' says Tom Vandeput, Provincial Executive member for Economic Affairs and Chair of POM Limburg. 'We want to remove this barrier by providing Limburg-based businesses with practical support, so that automation does not remain just a distant concept for the local manufacturing industry.'

COBOTASSIST

COBOTASSIST is an Interreg Flanders–Netherlands project run by Sirris, Fontys, Breda Robotics, SyntraPXL, POM Limburg, High Tech NL and Avans.

Traflux

Traflux is a family-owned company based in Houthalen-Helchteren that develops and manufactures innovative waste solutions. The company produces semi-underground and underground waste containers and provides services for installation, emptying, cleaning and repair. From its base in Limburg, Traflux serves customers across Belgium, while its waste containers are used in more than 30 countries. The company combines in-house production with practical experience in waste collection, focusing on quality, sustainability and technological innovation. Through automation and digitalisation, Traflux aims to further optimise its production processes and support employees with physically demanding tasks.

Sirris

Sirris is the collective centre for and by the technology industry in Belgium. It supports companies in accelerating technological innovation, from idea to implementation. Sirris provides expertise in product development, advanced manufacturing, digitalisation, automation, circularity, and industrial testing and demonstration environments. This expertise helps industrialise construction and renovation processes by making new solutions manufacturable, reproducible and scalable. In this way, Sirris strengthens the link between technological innovation, industrial applicability, value chain development and market-oriented implementation. As a neutral innovation partner, Sirris bridges the gap between research, companies and industrial applications in the construction and renovation sector.

Partners













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