BOOST

YEARMAGAZINE 2024-2025

‘Governing means looking ahead - or at least, it should...’

Stephan Toxopeus,
Chairman BOOST Smart Industry Leadership Group

‘Curiosity uncovers opportunities for improvement’

Kees Pruim,
Technical director Zuidberg

BOOST smart industry

BOOST circulair

BOOST robotics

WWW.BOOSTSMARTINDUSTRY.NL

“The world is changing, and this impacts our economy. A more competitive Eastern Netherlands is more important than ever. With EDIH BOOST Robotics, we help manufacturing companies with digitalization and automation, enabling them to become and remain competitive. And it works: thanks to targeted advice and assessments, businesses are actively seizing digital opportunities and fostering growth. BOOST also supports companies with relevant financing and training. In this way, we help Gelderland-based businesses make our province smarter, cleaner, and more prosperous.”

Helga Witjes, Deputy of the Province of Gelderland

“The economic stagnation in Europe, particularly in Germany, developments in the labor market, and geopolitical shifts—affecting energy prices, potential import tariffs, and export restrictions—all influence the competitive position of the regional manufacturing industry. Continuous focus on productivity improvement is crucial and requires investments in the digitalization of production processes, as well as in today’s and tomorrow’s workforce. The transition to circular entrepreneurship also contributes to a future-proof business model. By continuing EDIH BOOST, the Province of Overijssel will support the regional manufacturing industry in the coming years, helping it transition toward a smarter, cleaner, and more sustainable industry.”

Gert Harm ten Bolscher, Deputy of the Province of Overijssel

BOOST ROBOTICS: CREATING IMPACT TOGETHER

We are proud to present the BOOST Year Magazine 2024, in which we reflect on a year full of growth, collaboration, and innovation. As the European Digital Innovation Hub for Eastern Netherlands, we are committed to supporting businesses in their digital transformation, with a strong focus on robotics and smart technologies.

The business-oriented approach of our innovation brokers, using the Smart Industry Assessment as a foundation, has proven to be a great success. More than 110 Smart Industry Assessments have been conducted, providing key decision-makers in participating companies with valuable insights to take further digitalization steps.

In September, our hub was evaluated by the EU. The European midterm review was an important moment of reflection and validation of our work. The positive feedback we received confirms that BOOST Robotics is on the right track and is making a meaningful contribution to the digitalization of our region and beyond. However, despite the positive feedback, we recognize that there are still many opportunities for improvement.

In this magazine, we take you through the projects, partnerships, and inspiring stories that have defined this year. We show how collaboration and innovation go hand in hand and demonstrate the impact we can create together. We look forward to a promising future in which we, together with our partners, continue to build a digitally and technologically stronger Eastern Netherlands.

Enjoy reading!

Robin Burghard
Hub Manager BOOST Robotics

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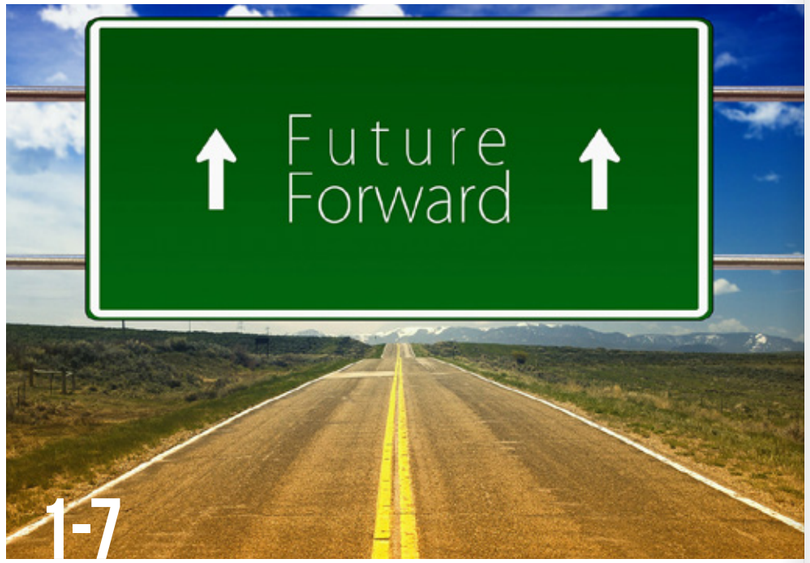
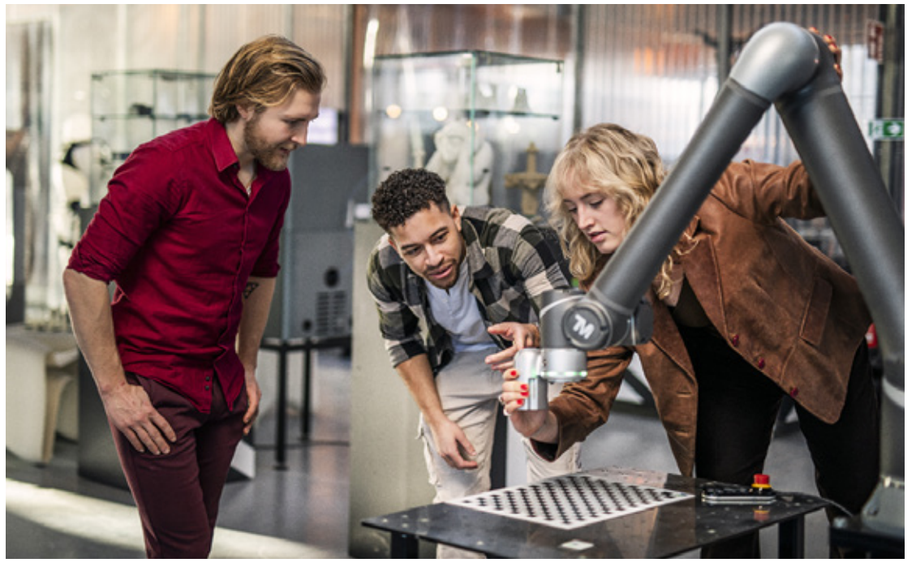




“CHANGE THE THINGS YOU CAN AND ACCEPT THE THINGS YOU CAN’T”. THIS MEANS THAT WE NEED TO THINK ABOUT THE IMPACT OF THE ABOVE MATTERS ON OURSELVES AND OUR COMPANY.

GOVERNING MEANS LOOKING AHEAD — OR AT LEAST, IT SHOULD...

Dear all,

It was one of those beautiful winter days: the sun was shining, the sky was a crisp blue, and the temperature was just cool enough for a refreshing walk in the woods. A perfect moment to reflect on what I want to do with the company this year: continue the same path or shift focus? Because there’s certainly a lot happening around us.

In my view, every company must consider geopolitical changes and risks when planning its strategy. We certainly do, and in doing so, we assess not only the impact on our own business but also on our customers’ markets.

- What will be the consequences of the U.S. elections?
- How will the war in Ukraine unfold, and what does that mean for us?
- The Middle East remains a volatile powder keg that could ignite at any moment. What impact will this have, for instance, on fuel prices?
- How should we interpret the increasing cooperation between authoritarian states?
- And what about the influence of artificial intelligence, the development of the Chinese economy, and the race for rare minerals?

A key principle here is: “Change the things you can and accept the things you can’t.” This means we must think carefully about how these global developments affect us and our business.

Not everything will be equally important to everyone, but I do see some common denominators:

- As geopolitical uncertainty rises, having strong local networks and relationships is becoming increasingly crucial: think global, act local.
- Shifting work to low-wage countries to reduce labor costs is becoming more vulnerable. Instead, we must focus more on digitalization and automation to increase the value created per working hour.
- Responsibility for our planet is a central theme—one that no one can ignore. Whether you call it sustainability or circularity, we must adapt to it.

These are issues we cannot overlook, and they affect us all. But we can help each other and tackle them together. That is also the mission of BOOST’s leadership group: entrepreneurs who voluntarily—but not without obligation—offer support and direction to the government, as well as to knowledge and research institutions. Our goal: “In the East of the Netherlands, we unite, combine, and drive improvement processes focused on key themes for the coming years: Smart Industry, circularity, and digitalization.”

As I walked through the forest, I could already picture it: the East of the Netherlands as the frontrunner and driving force of the Dutch manufacturing industry.

Stephan Toxopeüs
Chairman, BOOST Smart Industry Leadership Group

Quickly gain clear insights for concrete digitalization steps

SMART INDUSTRY ASSESSMENT AT BIEZE FOOD GROUP

Bieze Food Group is the first company in Gelderland's food industry to utilize the Smart Industry Assessment. IT Director Evert Nijkamp was closely involved in the process and shares his experiences. The company was guided by Sina Salim, Innovation Broker at RCT Gelderland.

"We wanted more insight into our overall digital position," says Nijkamp about the motivation behind starting the assessment process. "Bieze Food Group is currently undergoing a major transition: from a network of companies operating in the food sector to a platform where chain collaboration is central. We take responsibility for the entire supply chain—from producer to professional user. Naturally, this raises the question: where do we stand in terms of digitalization, and where do we want to go? In addition to the Smart Industry Assessment, we also used the Digital Maturity Assessment (DMA) from one of the European Digital Innovation Hubs (EDIH), which quickly gave us a clear picture of our situation."

TWO TYPES OF ASSESSMENTS

"A Digital Maturity Assessment measures the current level of digitalization," Salim explains. "With the results, a company can systematically improve its digital performance. The tool evaluates seven categories, including digital business strategy, human-centered digitalization, data management, and artificial intelligence. The results serve as a benchmark, comparing the company's performance to industry peers."

"A Smart Industry Assessment provides insight into business competencies such as the business model, smart products, cybersecurity, production technology, and sustainability," the innovation broker continues. "Additionally, it maps out future ambitions, showing potential steps a company can take to advance. It's a structured way to think about the future of your business."

Completing the DMA questionnaire takes about an hour and is straightforward. "I believe the results could have been more detailed," Nijkamp notes. "There could be more depth to it." The assessment did not lead to any immediate changes, which reassured him that Bieze Food Group is on the right track in terms of digitalization. "However, when it comes to implementing artificial intelligence, there are still opportunities. We are exploring how to integrate AI within our businesses. It's a challenge—for both us as IT professionals and for the companies themselves."

NEW INSIGHTS

The Smart Industry Assessment team consisted of seven directors from different company disciplines: commerce, production, finance, logistics, procurement, HR, and IT. Each team member spent around six to eight hours on the assessment. "We deliberately did not include the CEO and CFO in the working group to keep discussions as balanced as possible," Nijkamp emphasizes. "That was a good decision, as it prevented them from having an overly dominant influence on the conversation."

He found it enlightening that the assessment revealed a significant difference in approach and working methods between operational activities and commercial and logistics functions. "This difference mainly arises because the commercial and logistics departments are much further along in digitalization than the operational side. We therefore divided the assessment into separate parts to ensure we gathered relevant recommendations for both areas." One point of attention, according to Nijkamp, is that the assessment methodology is still largely focused on the manufacturing industry, particularly product development and (re)manufacturing. "It would be great if an assessment were developed that better aligns with the food industry," he suggests.

HIGH AMBITION LEVEL

"Looking at the results, it's clear that Bieze Food Group has a high level of ambition," Nijkamp concludes. "We see that we are already very advanced in certain areas, particularly in commerce and logistics, but we have also identified significant improvements that can be made in our operational and production processes."

Since the assessment was only recently completed, the IT Director cannot yet elaborate on its effects. However, he does highlight the areas of initial focus: "Like many other companies in the food sector, our production facilities are quite traditional. Manually setting up machines is still common practice. While we already use data to some extent, there's much more we can do. This will be a key focus in the coming period."

SOURCE: VAKBLAD VOEDINGSINDUSTRIE & BOOST SMART INDUSTRY

TEST BEFORE INVEST!

At EDIH BOOST Robotics, we offer businesses various support and advisory services through our field labs, guiding them through different stages of the digitalization process.

Starting with Technology Benchmarking. An initial step could be a technology benchmarking, where we map out which relevant technologies are already available on the market for your business.
A feasibility study can then determine whether the desired technological development is viable and whether it truly addresses the entrepreneur's needs. Small-scale testing, such as setting up a pilot installation or demonstrator, is also an option.

Fraunhofer Innovation Platform for Advanced Manufacturing at the University of Twente

DEVELOPMENT AND REDESIGN FOR ADDITIVE MANUFACTURING (DREAM)

DreAM is a service that helps manufacturing companies explore the potential of Additive Manufacturing (AM). Through three half-day workshops, we assess how AM can improve your current production processes and introduce you to different AM technologies.

READ MORE

GRIP ON IT

Grip on IT is a service designed to help your organization understand how digitalization can enhance your business. Over a series of seven workshops, we analyze current processes and information flows to identify areas for improvement. Together, we develop a clear action plan for your ideal digital infrastructure.

READ MORE

Testing Facilities at Perron038 – Factory Next

ROBOTICS & LOGISTICS LAB

More and more factories are integrating robots, cobots, and AMRs (automated mobile robots). At Perron038, you can experiment with two integrated robotic cells to determine which process steps can be automated—whether in assembly or logistics.
The setup is uniquely flexible: the robots can handle any type of product, as long as it fits within the robotic cell.
With manual workstations positioned next to the robots, automated and manual tasks can be seamlessly combined.

EXAMPLE:

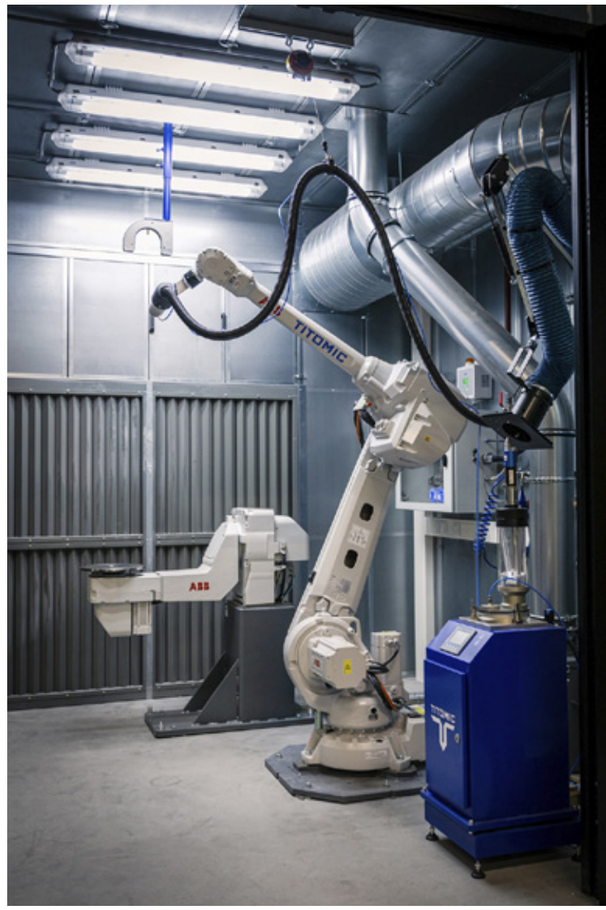
Feasibility Study for Robotic Assembly

1. Map out the current assembly process.
2. Evaluate each step to see if a robot can perform it.
3. Manually executed steps are handled at manual workstations at the beginning or end of the robot cell.
4. Automatable steps are integrated into the robotic cell.

Major advantage: You can test in our facility without disrupting production at your own site.

VISION LAB

The Vision Lab leverages camera technology for quality control, a method increasingly used in modern manufacturing. At Perron038, high-speed cameras register information in real time, helping you gain valuable insights into your products and enabling faster, more accurate quality inspections.



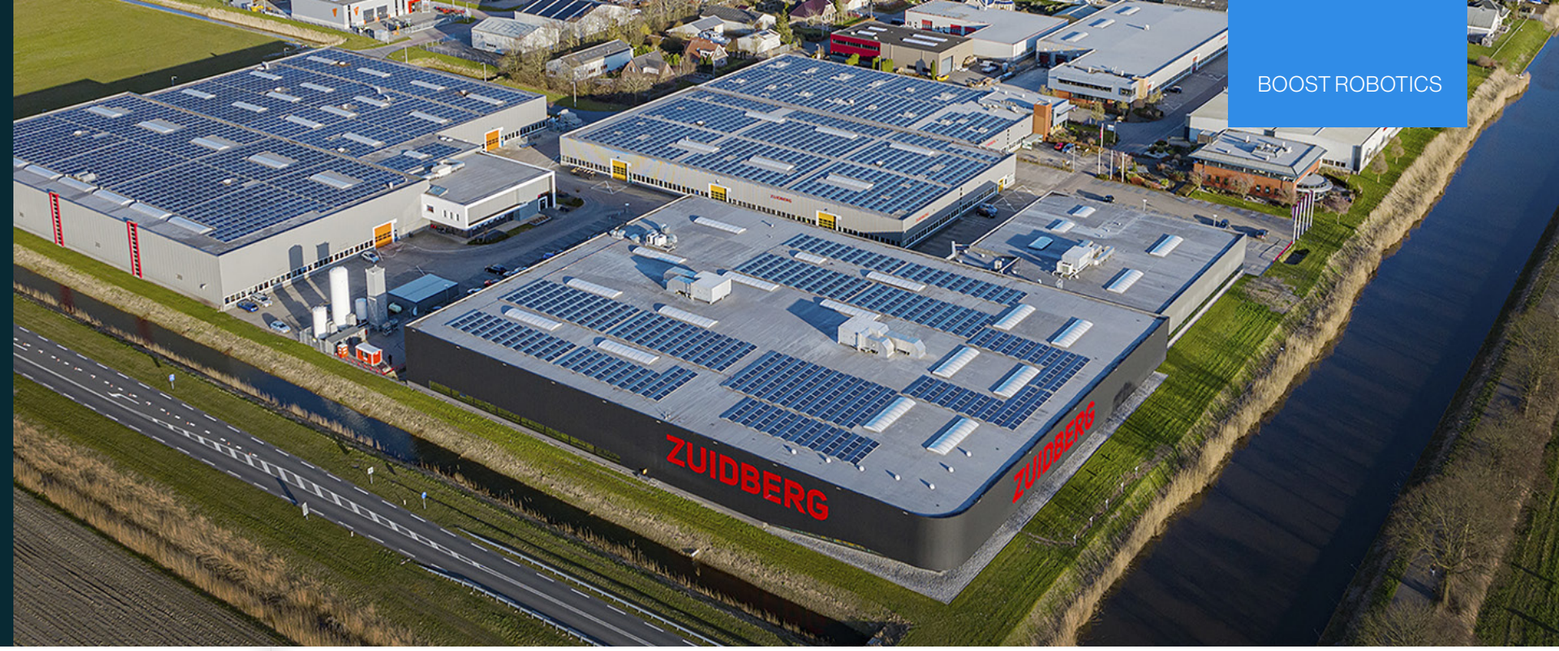
DIGITAL MANUFACTURING LAB

The Digital Manufacturing Lab is a high-tech space where advanced digital technologies come together. Equipped with Visual Components and an MES system, the lab enables research into Digital Twinning, operator training, and smart production solutions.
Beyond physical machinery, this lab allows businesses to work directly with their data and results. By linking your data to the MES system, you can gain deeper insights into your production process and uncover potential innovations.

CHECK HERE FOR MORE INFORMATION ABOUT THE TEST FACILITIES (IN DUTCH)

Zuidberg takes steps after assessment

CURIOSITY UNCOVERS OPPORTUNITIES FOR IMPROVEMENT



BOOST ROBOTICS

Zuidberg, based in Ens, is a family-owned company with a 40-year history. Its team of over 400 employees develops and produces high-quality, innovative products for the agricultural sector. Zuidberg consists of four modern high-tech production companies, each with its own specialization. The main product groups include front linkage systems for tractors, track systems (rubber tracks for agricultural machinery), and Power Take-Off (PTO) systems. A PTO is powered by the tractor's gearbox or engine, transferring engine power to attached implements. Zuidberg supplies customers in more than 42 countries, including both agricultural businesses and tractor manufacturers.

In 2023, Zuidberg participated in the Smart Industry Assessment. Where do they stand a year later? What have they done with the results? We discuss this with Kees Pruim, Technical Director, and Niek Flierman, Production Support Manager at Zuidberg Group of Companies.

CURIOSITY

"The main reason for participating in the Smart Industry Assessment was curiosity. What can we learn from others to further advance our company with a smart industry approach? During the assessment, we quickly realized that our automation and digitization were much less advanced than we had thought. There was a significant gap between our desired and actual situation," says Pruim.

TAKING ACTION

One of the key findings from the assessment was that while parts of Zuidberg's production process were automated and robotized, there was no fully automated process line. "This leads to partial optimization rather than overall efficiency." Another crucial point was the lack of standardized procedures within the production environment. Pruim explains, "As a result, avoidable errors were sometimes made. We are now moving toward process-based, secured methods. For example, quality checks by operators are now carried out according to a standardized procedure. Every operator follows the same instructions, measures in the same way, and at the same stage in the process."

Beyond reducing errors, this approach provides Zuidberg with valuable data, as all measurements are recorded automatically. "We use this input to monitor our production machines' performance and intervene when values deviate."

In addition, Zuidberg has started building a digital factory where all steps in the production process are recorded. Pruim explains, "Based on measurement points, we gain insight into a product's status. How far is it in the production line? How much time do we spend on it? When will it be finished, and what are the costs? This application will help us bridge the gaps identified in the assessment."

FOCUSING EFFORTS

For nearly eight years, HAN University has been Zuidberg's partner in Lean practices. Together, they develop Lean training programs for Zuidberg employees. Additionally, HAN provides some guidance and conducts measurements to assess the Lean program's results.

To kickstart improvement processes, Niek Flierman and colleagues attended a Process Mapping workshop at HAN. "This helped us tremendously in focusing our automation plans. Instead of looking at the effects of automation on individual process parts, we now examine the entire process and how we can work more efficiently with existing resources," Flierman explains.

PARTNERING WITH PERRON038

Zuidberg is one of the partners of Perron038 in Zwolle, where knowledge institutions and high-tech companies collaborate on innovative solutions for the manufacturing industry. Flierman is enthusiastic about the collaboration. "We work with a variety of partners in different fields, seeking solutions to similar challenges and learning from each other. With a group of students, we are currently researching the assembly of a component in the PTO pump unit. The students are exploring whether a cobot can handle this assembly. This improves our efficiency while providing students with a proven concept. A previous collaboration has already resulted in the construction of a machine for deburring pumps—turning a concept into a real application."

TIPS FOR OTHER ENTREPRENEURS: START EARLY!

Flierman advises companies to join Perron038. "It's an accessible way to share knowledge and have students test automation ideas. The process moves quickly, and you immediately see results. It's a great platform for 'BV North-East Netherlands' to exchange knowledge."

Pruim emphasizes the importance of the assessment: "Essentially, you are evaluating the foundation of your organization. Do you have proper information processing and sharing in place? Do you understand your processes? Do you know what is needed to deliver quality and maintain a healthy operation? The assessment provides insights into areas for improvement. My advice: start improving now. The world is changing rapidly. Make sure you begin on time, preferably today rather than tomorrow."

SUPPORT TO FIND INVESTMENT

Work Package 4 of the European Digital Innovation Hub (EDIH) is dedicated to helping entrepreneurs access financing for their digital transformation efforts. Over the past year, we have worked closely with financing specialists from Novel-T, Kennispoort Regio Zwolle, and Oost NL to support businesses in multiple ways:

- One-on-One Advisory: We engaged in discussions with 21 entrepreneurs, providing tailored advice on funding opportunities, pitching strategies, and business plan presentations for banks and investors. We also explored how certain bank financing structures could still be feasible.

- Voucher Program: In collaboration with the Province of Overijssel, we introduced a voucher scheme to support companies in following up on their EDIH assessment results. Businesses investing up to €25,000 in external expertise could receive up to 40% reimbursement. 25 companies have benefited from this initiative, encouraging them to invest further in their digital transformation.

- Workshops at Conferences: Using our combined expertise in subsidies, banking, and investments, we organized interactive workshops at various industry events. These covered topics such as smart subsidy usage, financial challenges in business succession, and making startups more attractive to investors.

COMPREHENSIVE FINANCIAL ADVISORY SERVICES

At the end of 2024, we launched a new financial advisory format where businesses can engage in broad financial strategy discussions with a panel of three to four financial experts, each with a different background.

- The half-day session allows companies to present their current status and future growth plans.

- We provide multi-perspective advice, covering subsidy opportunities, financing structures, and investor positioning.

- The result? A tailored financial roadmap for the next two to three years.

This free-of-charge service will be further refined in 2025.

INTERESTED IN OUR FINANCIAL SERVICES? SIGN UP HERE

2024: A YEAR OF SUCCESSFUL EUROPEAN COLLABORATION FOR EDIH BOOST ROBOTICS EAST NETHERLANDS

Over 200 SMEs participated in European networking activities and project development.

In 2024, EDIH Boost Robotics East Netherlands strengthened its role as a European leader in digital transformation for SMEs by intensifying its collaboration within the Digital Innovation Hub (DIH) network.

INTERNATIONAL IMPACT AND COOPERATION

During major events such as Synergy Days in Barcelona and the EDIH Summit in Brussels, we saw firsthand the value of European partnerships. Our cooperation with DIH4CAT (Catalonia), AICS (Baden-Württemberg), Digitalis (Flanders), AddSmart, and EDOCobot (Denmark) led to:

- New initiatives
- Expertise sharing
- Joint digitalization services for SMEs

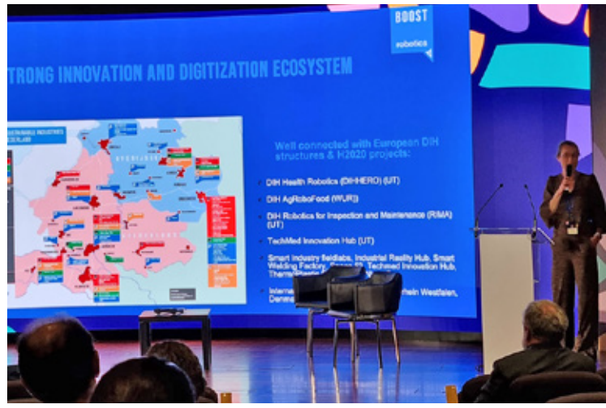
More than 200 SMEs participated in matchmaking sessions and networking events, and over 10 businesses submitted European project proposals focused on digital innovation. These activities provide SMEs with access to cutting-edge expertise and facilities, such as robotics and AI applications, that may not be available locally.

WHY INTERNATIONAL KNOWLEDGE MATTERS FOR SMES

Digitalization has no borders. Through international collaboration, SMEs can:

- Leverage expertise from leading European regions
- Test innovative solutions before investing
- Expand into new markets

Our established collaboration corridors connect SMEs from East Netherlands with strong European tech hubs like Flanders and Baden-Württemberg, enhancing their competitiveness and innovation potential.



LOOKING AHEAD

Our work in 2024 was just the beginning. In the coming years, we will:

- Expand our joint services and pilot projects
- Facilitate ongoing peer learning
- Provide continuous SME support

These initiatives will accelerate the digital transformation of businesses and contribute to a stronger, more sustainable, and technologically sovereign Europe.

JOIN US AND ACCELERATE YOUR GROWTH!

Are you an SME looking to benefit from international knowledge, networks, and access to advanced technologies? Participate in: Test-before-invest programs in Catalonia or A business delegation trip to top European innovation regions in 2025. These opportunities allow you to connect with European value chains, access new markets, and fast-track your digital transformation.

SIGN UP TODAY!

Visit our website or contact Karolien de Bruine at karolien.debruine@oostnl.nl to learn how we can support your digital transformation journey. Together, we're building a stronger, more innovative Europe!

AI FOR PROCESS OPTIMIZATION IN MANUFACTURING COMPANIES

In 2025, AI is impossible to ignore. However, integrating such a new technology into a company is not always easy. Family-owned company Pentas Moulding embraced this challenge. With the help of European Digital Innovation Hubs (EDIH), the company successfully optimized its processes, completely transforming its way of working. Marthijn Koorn, Commercial Director at Pentas Moulding, explains how this manufacturing company stays ahead of the curve.

Pentas Moulding, based in Almelo, is one of Europe's most modern and advanced companies in the production of plastic products through rotational molding. They see technology as the foundation for delivering high-quality, customer-specific plastic products.

Founded in 1975, Pentas Moulding specializes in manufacturing custom-made plastic products for the manufacturing industry, always tailored to customer needs. The company follows a clear vision: focusing on automation to maintain its technical leadership. "We have always been focused on innovation in IT and technology," says Koorn. "As early as 2000, we started developing our own ERP system, and since then, our factory has been completely paperless. In recent years, we have connected all machines and sensors to our databases, allowing us to have even better control over the quality we deliver. We are always exploring new technologies to improve efficiency. Now, with AI, a new era is beginning, offering tremendous opportunities."

PERSONAL AI ASSISTANT

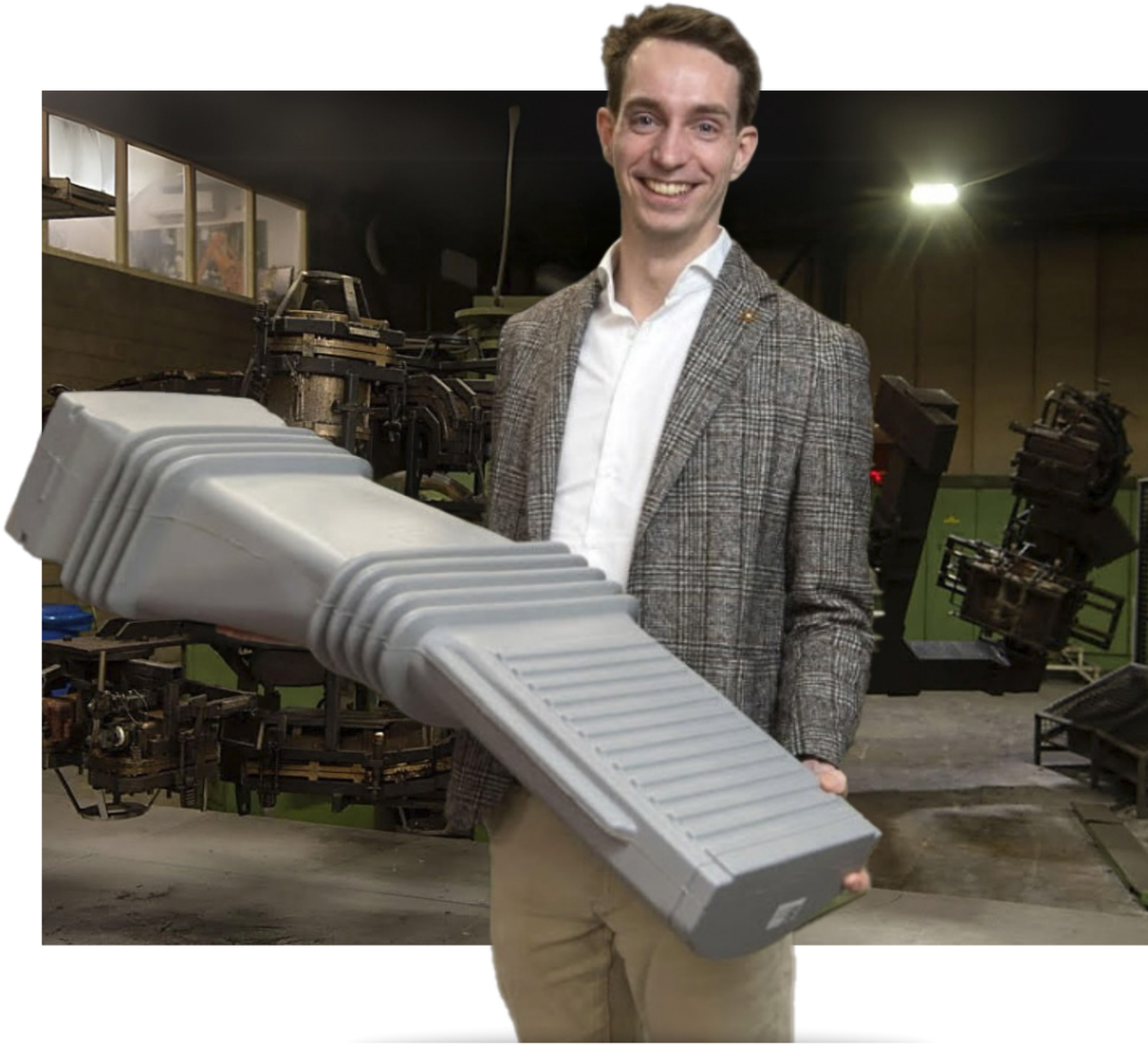
About a year and a half ago, the company started using ChatGPT for writing emails, translating texts, and digitizing manuals. But AI's role goes much further than that. Koorn explains, "We have made ChatGPT available on our machines. This means that a technician can ask what to do in case of a malfunction or compare a machine's performance with others. They can also receive advice on how to improve performance."

AI is also integrated with the company's vision system. Cameras perform video analysis of product finishing, and AI immediately interprets what the employee is doing, offering guidance when they deviate from the standard procedure. "Every employee will soon have their own personal AI assistant," Koorn continues. "This makes us more efficient, more flexible, and also more attractive as an employer in an increasingly competitive job market."

BEYOND PROCESS OPTIMIZATION

To find the right approach, Pentas Moulding enlisted the help of Novel-T. "They helped connect us with the right people, such as partners and experts who guided us through AI integration," says Koorn. "Additionally, we received support for funding opportunities, such as EDIH. Thanks to this support, we have now built a solid foundation for future innovations."

However, this is just the beginning of Pentas Moulding's digital transformation. Koorn states, "The impact of this digitalization goes beyond process optimization—it fundamentally changes how we work. We are moving toward a more connected organization where technology and people collaborate to achieve better results."



A MODEL FOR OTHERS

Which new technologies will emerge in the future remains unknown, but one thing is certain: Pentas Moulding will continue to invest in innovation. "Not just for ourselves, but also to contribute to the development of the industry as a whole," says Koorn. "We see a future where AI is an integral part of all our processes, with a personal digital assistant for every colleague.

Our factory will become smarter, more flexible, and more sustainable, with minimal waste and maximum efficiency. Ultimately, we want to achieve more with fewer resources and transition to fully CO2-neutral production. We hope to serve as an example for other companies in their transition to a more sustainable and data-driven future."

Original article by Novel-T

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