



INSPIRATION, INSIGHTS AND

INTERVIEWS ON INDUSTRY 4.0

AND YOUR CONFERENCE

# CATCH A **GLIMPSE** OF THE **FUTURE** IN INDUSTRY 4.0

**VISITFLANDERS**

# WHY FLANDERS IS LOOKING FORWARD TO HOSTING YOUR CONFERENCE IN INDUSTRY 4.0

Your association is at the heart of a groundbreaking industrial development, comparable to the advent of the steam engine and the internet.

Consider Flanders your co-pilot in this revolution. We are an Industry 4.0 hotspot, and companies worldwide are embracing the innovations that are developed here. Our local training in virtual reality – a crucial tool in Industry 4.0 – is considered the best in the world. The concept of Living Labs guarantees a continuous improvement.

This unique biotope ensures that we have numerous Industry 4.0 experts here. As a professional, you know better than anyone that this is a crucial factor in making your conference a success.

This brochure introduces you to the northern region of Belgium, an Industry 4.0 hotspot – and therefore an ideal location for your conference in this field. Choosing Flanders guarantees a successful event. What's more, you're making life easy for yourself. Because the VISITFLANDERS Convention Bureau offers you free support, as you can read on page 26.

On behalf of all our Flemish Industry 4.0 experts, I wish you happy reading. It is my pleasure to be at your service should you require further information.

Tuya Beyers  
Association Expert Industry 4.0

P.S. As you will read, our expertise is not the only reason to choose Flanders. Our Flemish gastronomy and heritage will also score highly with your delegates.



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# “NEW TECHNOLOGIES ONLY SUCCEED IF PEOPLE ARE ON BOARD”

## ON THE HUMAN AND SUSTAINABILITY DIMENSIONS OF INDUSTRY 4.0

Does a brochure about Industry 4.0 make sense, while there's already talk of Industry 5.0? According to Leo Van de Loock, Industry 4.0 transition manager at VLAIO, it is a logical evolution that increasing attention is being paid to human aspects and sustainability. What's more, Flanders is totally on top of this trend.



**LEO VAN DE LOOCK**  
Industry 4.0 transition manager at VLAIO

*“Industry 4.0 emphasizes the technological dimension. But now, we're also seeing the sustainability story gaining traction, along with all things connected to the human factor. This is what the European Commission is calling Industry 5.0. In Flanders, we have been working on this human side of things for a while, linking people and technology. We're not only interested in improving business and production processes, but we're also focusing on working conditions, 'workable' work, and human capital. After all, new technologies only succeed if the people in the workplace are on board and accept these technologies.”*

### INCREASED ACTIVITYRATE

*“That's why one of VLAIO's Industry 4.0 Living Labs is focused on workable work. We're funding projects in which we're linking technologies from the Living Labs with a training programme on human capital. Which competencies and skills must companies have in-house to be able to work with drones, to use automated vehicles in the warehouse, to deploy cobots, to support technologies such as AR and VR...? What profiles do they need to recruit? What training is needed?”*

*Investing in the human factor opens up interesting perspectives. Innovative technology can have a positive impact on the activity*

*rate, for example, by providing support to people performing their tasks. In this way, we're also creating opportunities for those who are currently unable to participate in the labour market, such as people with a physical disability or the elderly.*

*The same applies to the development of a circular manufacturing industry. Here, too, new opportunities are arising thanks to data-driven technologies that we're supporting here at VLAIO.”*

### FACTORIES OF THE FUTURE

*“We're also trying to coordinate our actions with other partners who are active in the Industry 4.0 field, such as the strategic research centre imec, and Flanders Make, which collaborates with industrial companies across the borders as part of the SmartFactory programme. And of course technology federation Agoria and the Sirris research centre, whose Factory of the Future assessment has been*

*successfully setting Flemish businesses on the path to Industry 4.0 for several years now.”*

### ABOUT VLAIO

The government agency VLAIO – Agency for Innovation and Enterprise – invests in Flanders' transition to Industry 4.0.

It funds institutions such as Flanders Make (see page 10) and imec (see page 16), enabling research and innovations in the sector. VLAIO also invests in so-called Industry 4.0 Living Labs. These offer companies a low-threshold opportunity to experiment with new technologies and business models.



## VISIT THE INDUSTRY 4.0 LIVING LABS IN FLANDERS

Hosting your Industry 4.0 conference in Flanders allows you to take your delegates on exciting experience trips, offering them a customized social programme that fits perfectly with the theme of your congress. What about visiting the Industry 4.0 Living Labs, for example? This way, you'll give your conference participants a privileged look at the latest evolutions in the sector. (source: [www.vlaio.be](http://www.vlaio.be))

### 1. VIRTUALLY ASSISTED CONSTRUCTION

Virtual and augmented reality offer significant efficiency gains in the preparation and execution phases of a building. In this Living Lab, technology providers and construction companies work together to facilitate virtual construction (BIM), which means a project is initially implemented digitally.

### 2. NEW LIFE FOR OLD MACHINES

Manufacturing companies with older machinery can also jump on the Industry 4.0 train. Sensors, actuators, and computing power can give industrial systems an affordable upgrade. In this Living Lab, a methodology is devised, which is demonstrated on conventional machines and a steam installation.

### 3. BUILDING AND GROWING MORE EFFICIENTLY

Drones have enormous potential for construction and agriculture. Think of safety inspections of roofs, thermographic scans of buildings, and drones that spray crops autonomously. This Living Lab brings together the best business cases in DronePort, a unique test and incubation centre for drone technology.

### 4. DISEASE DETECTION IN FARMING AND FRUIT GROWING

Spectral image sensors and matching software make it possible to use a drone to screen agricultural crops for diseases and to immediately take the right measures. This Living Lab focuses on two case studies: the detection of the fungal disease alternaria in potatoes and fire blight in orchards.

### 5. SUPPORTING EMPLOYEES IN THE FOOD AND BIOTECH SECTOR

This Living Lab shows how companies can support employees with innovative technologies, such as digital work instructions, augmented reality, and digital twin processes. The focus is primarily on lab technicians, operators, and maintenance technicians from the food and biotech sector.

### 6. HIGH-TECH INFRASTRUCTURE FOR MANUFACTURING BUSINESSES

In this Living Lab, 1300 participants can attend hundreds of technological training courses and workshops every day. This way, medium-sized manufacturing companies are informed about new production techniques and Industry 4.0 concepts.

### 7. DIGITAL LEARNING METHODS FOR THE CHEMICAL INDUSTRY

Finding and keeping employees with the right competencies and skills is one of the biggest challenges en route to Industry 4.0. This Living Lab presents dual education systems and innovative learning methods for employees in the chemical sector.

### 8. CYBER SECURITY FOR MANUFACTURING COMPANIES

Industry 4.0 largely revolves around connectivity. The more data companies have at their disposal, the more efficiently they can produce and the higher their service levels. This Living Lab offers an overview of best practices and assists businesses in implementing them.

### 9. AFFORDABLE AND USER-FRIENDLY PRODUCTION SOFTWARE

In order to respond quickly to changing circumstances, SMEs in the manufacturing industry need reliable, flexible, and easy-to-configure production software. This demo and test environment provides companies with insight into the possibilities, costs, and benefits.

### 10. 3D PRINTING OPPORTUNITIES

Within twenty years, up to 40 per cent of all production processes will involve additive manufacturing or 3D printing. This is a huge opportunity for manufacturing companies. Based on real, practical cases, this Living Lab inspires enthusiasm for additive manufacturing.



# FLANDERS. BECAUSE 100% OF YOUR DELEGATES LOVE GOOD FOOD.

Industry 4.0 touches many economic sectors. However diverse the backgrounds of the delegates attending your conference, they all have one thing in common: a love of good food.

Gastronomically, your choice for Flanders will score a bullseye. Your guests will be amazed by the local gastronomy, the wealth of beers, and our famous chocolate, topped off with a big serving of hospitality and friendliness.



Flanders and Brussels boast no fewer than 10,000 cafés, 3,000 fries stands, 2,500 different beers, 172 breweries, and 97 Michelin-starred restaurants.



The world-famous praline was born in 1857. Not in a chocolate shop, but in the Brussels pharmacy of Jean Neuhaus.



A local specialty is tomato stuffed with shrimp. In Oostduinkerke, the shrimps are caught with a horse that walks into the sea. This artisanal method is recognized as intangible cultural heritage by UNESCO.

# “HUMANS REMAIN A KEY LINK IN INDUSTRY 4.0”

## 4 TRENDS FOR THE FUTURE

Landing in the “valley of death” is a huge pitfall in research. Promising ideas often get bogged down in the research phase, and never get translated into industrial production. Solving this problem requires a strong bridge between universities, which focus on basic research, and companies that can make use of the results. Flanders Make bridges this gap by adding an extra research link. The organization ensures that good ideas which can create industrial value are actually implemented.

Flanders Make has grown into the biggest player in Industry 4.0 and its associated digital transformation in Flanders. Because it is anchored in Flemish universities, its experts keep their finger on the pulse of new developments in the sector. No wonder that CEO Dirk Torfs has a clear view of the trends for the future. Here, he shares four important developments, which Flanders Make is committed to pursuing.



DIRK TORFS  
CEO FLANDERS MAKE

### INDUSTRY 4.0 IS TRANSVERSAL

“A first trend is smart products and production systems. Smart means that you use sensors to generate data and software to turn the data into reliable and actionable knowledge.

“We talk about a solution pull system instead of a research push system.”

Industry 4.0 is highly transversal. The 163 members of Flanders Make belong to very different sectors, from manufacturing industry to logistics, from pharma to food. Solutions developed in one sector can also be used in other sectors. Hence, we talk about a solution pull system instead of a research push system. We don't develop new business

*models ourselves, but we do develop technologies that enable the implementation of new business models, for example “as-a-service” models.*

*The pandemic threw up a good example. We created COVID solutions from applications that had been developed for entirely different purposes. For instance, we measure distances for Automated Guided Vehicles: logistics vehicles that drive around factories. This measuring methods proved useful in small devices that we developed for social distancing during corona. This way, we could make people aware that they were standing too close to their colleagues.”*



This vision-based social distancing tool was developed at Flanders Make using existing Automated Guided Vehicle technology.

### GETTING MORE DONE THANKS TO DIGITAL INSTRUCTIONS

“A second trend is the increasing importance of flexible and agile production, in the context of so-called high mix–low volume. Ever more customers are demanding customized products; and at the same time a wide range of new products is emerging. In order to be able to serve customers quickly, these products must be produced in small, changing volumes, instead of large mass production. In Flanders, we succeed in doing this in a competitive manner.

For employees in the manufacturing industry, this high mix–low volume means that they are always having to make new products. Instead of writing heavy operating manuals, we develop digital instructions. People see drawings on a tablet, which explain what they need to do. These digital instruc-

tions – which take into account employees' level of experience and capabilities – simplify the work and increase convenience, so that employees succeed in getting more done than would otherwise be possible. For this reason, we're also focusing on the use of cobots: robots that work together with humans. How can we optimally divide the tasks between machine and human in order to achieve a more flexible production environment?”

### 10 YEARS OLDER IN 60 DAYS

“Humans are the third trend: operator 4.0. They remain a key link in production, because they ensure agility and flexibility. Flanders is taking the lead, internationally, in the interaction between human and machine. We're combining technologies around data processing with physical knowledge of machines. Additionally, we use AI technologies to make machines even



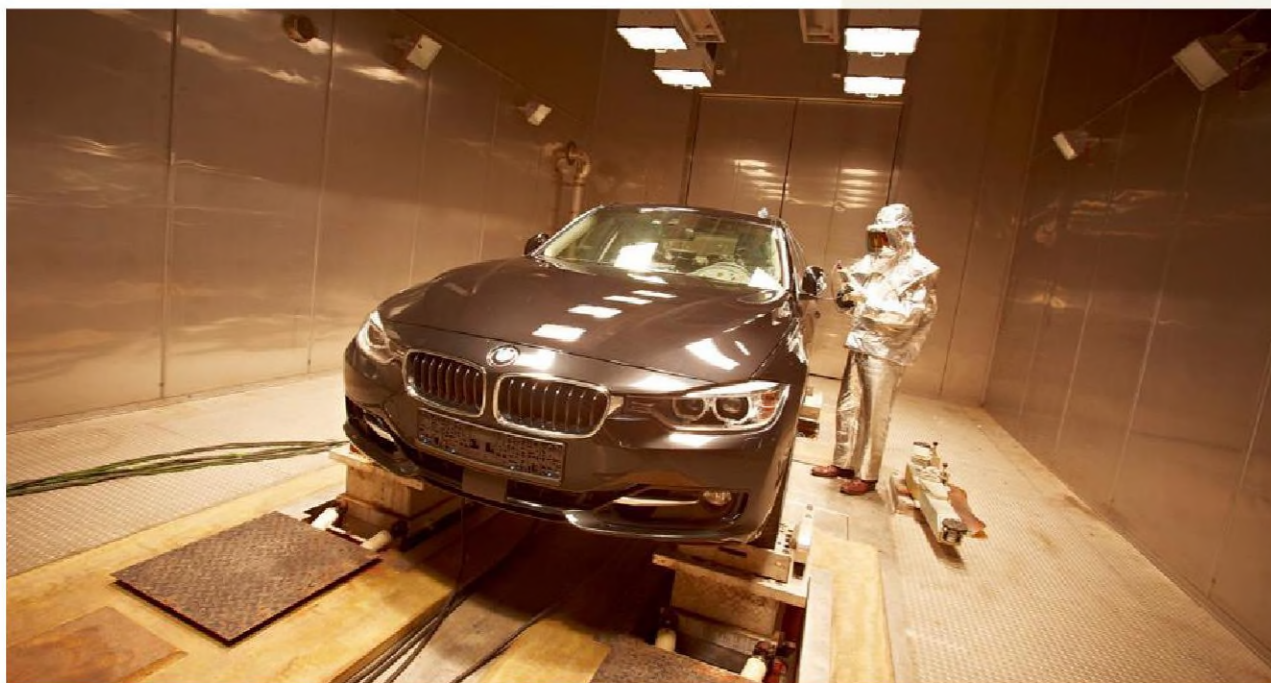
more efficient. We also excel at converting knowledge into a model, which we can then simulate in order to produce a top product. This is how we create connected, smart products that provide data, on the basis of which, well-founded, reliable, and reproducible decisions are taken.

A fourth trend is sustainability. This is not only about green and CO2-neutral production, but also about the circular economy: developing; making;

"At Flanders Make, we test passenger vehicles for, among others, Bentley, Toyota, McLaren, and BMW."

maintaining; and reusing products. You can also promote reuse by deploying sensors and measuring data such as energy use, speed, wear, and the resolution of defects. By working with this data, you can create less waste.

Flanders offers excellent services in the field of sustainability testing. At Flanders Make, we test passenger vehicles for, among others, Bentley, Toyota, McLaren, and BMW. For example, in just sixty days, we can make a vehicle ten years older with a road and sunlight simulator in a climate chamber. The car undergoes an accelerated test programme, which exposes it to all the loads that occur in real driving conditions. All of this promotes product quality in a way that is time and cost efficient for the customer. Flanders is truly unique in this respect."



## WHAT ARE COMPANIES FOCUSING ON NOW?

Every two years, Flanders Make asks companies about their vision, plans, and expectations. The result is an illuminating report on the state of affairs in Industry 4.0 – a scan of the beating heart of the sector.

### 1. SUSTAINABILITY DRIVES THE INDUSTRY

Sustainability is no longer an option – it's an imperative. Companies understand that creating sustainable products, services, and production systems will be the new standard for surviving in the manufacturing industry. With an average importance rating of 70%, the participating companies are making clear that sustainability is high on their agenda.

### 2. COMPANIES ARE MORE INDUSTRY-4.0-READY THAN EVER

45% of our companies are Industry-4.0-ready, giving themselves an average rating of 76%. This is very promising given that they are acting in a rapidly evolving context. Surprisingly, company size has almost no impact on Industry-4.0-readiness.

### 3. THE KEY DRIVERS FOR DIGITALIZATION ARE COST-BASED

The main drivers for digitalization are now cost-based (62%), especially among larger companies. Previously, there was a clear balance between cost-based and revenue-based drivers. The experience that businesses gain gives them important insights into the returns on their digitalization efforts.

### 4. COMPANIES ARE RE-FOCUSING ON INNOVATION AND DIGITALIZATION

2020 was a difficult year, but now the majority of companies (66%) are starting to re-focus on innovation and nearly all companies (96%) place digital transformation high on their agenda. Both innovation and digital transformation are indispensable to remaining competitive in a challenging global market.

### 5. A GROWING NUMBER OF COLLABORATIVE ECOSYSTEMS

To date, only 1 in 4 companies recognizes the benefits of collaboration in ecosystems, which is a key driver for sustainable growth. Increasing awareness and active involvement can have an important effect on the competitiveness of our industry.

### 6. COMPANIES ARE BACKING AI AND BIG DATA

And robotization has also made it into the Top 3 technologies that businesses have confidence in.

### 7. INCREASINGLY VITAL ROLE FOR DIGITAL TWINS IN PRODUCT DESIGN

34% of companies are using digital twins technology, and nearly half of them are using it for product design validation. More than 1 in 4 businesses deploy digital twins for maintenance support and scenario analyses.

### 8. COMPANIES SEE ADVANTAGES OF A DIGITAL SHOP FLOOR

45% of companies believe that having a digital shop floor offers the biggest digitalization opportunity. However, more than 60% says that finding the

necessary digital talent remains the main challenge for the successful digitalization of their business processes. Investing in workforce development and human-centric manufacturing is the key to gaining a competitive edge.

### 9. BIG DATA ARE A KEY ASSET, BUT MANY COMPANIES ARE STRUGGLING WITH IT

8 out of 10 companies are collecting data, but almost 60% of them are struggling to use them effectively and benefit from the information. Only 28% of companies have an Operational Technology department – essential for leading a successful Industry 4.0 implementation, starting with the installation of solid IOT infrastructure.

### 10. INVENTORY MANAGEMENT STRATEGIES SHIFT TO ENSURING AVAILABILITY

Following the corona crisis, stock management priorities are shifting towards a focus on availability. In real terms, this means that 22% of companies are holding more stock to counter delays in the supply chain. Nearly half of companies are reviewing their supply chain strategy.



## INNOVATION IS AT HOME IN THIS URBAN GREENHOUSE

Ghent ICC is the host venue of Innova Flanders. This iconic building is located in the beautiful Citadel Park, a green lung right in the middle of the city of Ghent. By opening up its space to the park, Ghent ICC is bringing the greenery inside, reiterating the conference centre's intentions to become known as "the urban greenhouse". The green space is juxtaposed to stunning effect with the ICC's 1970s architecture – strong concrete geometrical shapes and a distinct Brutalist character.



# THE PIECES OF THE INDUSTRY 4.0 PUZZLE

imec IS BUILDING BRIDGES BETWEEN SECTORS



**KRIS VAN DE VOORDE**  
Business Program Manager imec

Wireless connectivity (indoor) localization

New sensor technologies

Decision support systems driven by (hybrid) AI

Human-cobot interaction future health/work context



Industry 4.0 cuts across all sectors. The ultimate goal: machines that collaborate with each other, assembly units that relocate themselves to form new process lines, human operators and AI systems working in harmony.

For this to happen, several puzzle pieces must fit together. imec, the world-renowned research centre for nanoelectronics and digital technology, is the glue between these pieces. Its technology and solutions are making the smart evolution possible in fields like smart industry, smart city, smart health, and smart mobility.

## FOUR CRUCIAL PUZZLE PIECES

But which pieces of the puzzle must companies fit together to be successful in the smart evolution? Kris Van de Voorde distinguishes four areas.

*"Initially, the focus was on technology, now it is on people."*

*"First, new advanced sensor technologies, built on the basis of our nanotechnology, allow for Adaptive Control (AC): complex production tasks can be carried out through machine learning. This is important for industrial robotics and autonomous vehicles, for example. A second piece of the puzzle is wireless connectivity for localization and indoor localization. This is crucial for the manufacturing*

*industry. We are talking about moveable and autonomous flexible assembly cells with adaptive control for complex production tasks with perfect localization, positioning, and interaction. For instance, they make it possible to use drones in a factory context.*

*Human-robot cooperation is the third piece of the puzzle; more specifically, operator-cobot interaction. Advanced human-machine interfaces enable safe and efficient collaboration, as well as maintenance and repairs. Here, we are entering the territory of smart watches and other wearables, and perhaps, in the future, also implantables and brain-computing interfaces. In this field, we are seeing an evolution: initially, the focus was on technology, now it is on people. The road to Industry 5.0 is being paved.*

*Machine learning and Artificial Intelligence (AI) are our fourth and final puzzle piece. We're talking about deep sensor fusion and deep learning for analysing and monitoring the performance of machines. This is done in a distributed way in order to predict failures and to assist operators with smart interfaces and smart dashboards.*

*imec provides the technological foundation for putting these four puzzle pieces together. If your manufacturing company succeeds in this, you can take the step towards smart maintenance: smart components making smart machines that carry out smart processes. The next step is closed-loop control, which means the machine process is monitored and adjusted in real-time."*



Kris Van de Voorde on the importance of Industry 4.0 conferences

"My role at imec brings me into contact with industry in Flanders, across all sectors. That's how I noticed how important trade fairs and conferences are. They bring the whole world to our doorstep, and give us a great opportunity to showcase our often-complex technology."

### THE EXPLAINABLE AI STORY

"In the near future, we will deploy even more components to collect data on devices. We will create new algorithms to analyse them and to support important decisions.

Smart dashboard operators play a crucial role here. There is so much data coming at them that they are in danger of drowning in it! It's important to support these people in a visual way. This is what is known as the explainable AI story: how do you present the decisions made by

algorithms on a dashboard in such a way that an operator understands everything and can link it to useful actions?

With this in mind, a new Living Lab focused on workable work has been set up. Here, we demonstrate Industry 4.0 technologies in their context, with an operator. How does the operator deal with the technology? How can we process the data smoothly and present it as clearly as possible? Ultimately, the aim is to reduce the cognitive and physical strain on the operator."



## "EUROPE'S BEST-KEPT SECRET" WELCOMES YOUR INDUSTRY 4.0 CONFERENCE.

Ghent is a smart city with a strong ecosystem of innovative businesses, knowledge institutions, and citizens associations. It focuses on innovation in themes such as education, climate, and health.

That makes Ghent the ideal location for your Industry 4.0 conference, with numerous local partners eager to collaborate with you. In terms of tourism, too, your delegates will be well catered for. The ultimate proof: the renowned Lonely Planet travel guide recently chose Ghent as "Europe's best-kept secret".

# FLANDERS, YOUR INDUSTRY 4.0 CONFERENCE VALHALLA

## HOW BELGIUM'S NORTHERN REGION MANAGES TO STAY AN INTERNATIONAL FRONTRUNNER



**FILIP DE WEERDT**  
Science and Technology Coordinator  
Flanders Investment & Trade

The evolutions in Industry 4.0 are clearly important for industry in Flanders, both for SME's and large companies. They promise to improve competitiveness through efficiency gains and the production of personalized goods. By sharing Flemish success stories, Flanders Investment & Trade (FIT) is putting Flanders on the map as an innovative region.

Filip De Weerd is Science and Technology Coordinator for FIT. He coordinates the technology attachés stationed at FIT's Science & Technology Offices. These experts keep their finger on the pulse of new industrial developments worldwide.

The attachés are helping the technology companies in Flanders to internationalize, they promote Flanders as an innovative region, and they attract the right investments to the region. As a professional, you know that conferences play a key role in this process.

### WELCOME TO FLANDERS

Filip is the certainly the best person to explain which trends he sees for the future of Industry 4.0. Above all, he knows what Flanders' strengths are and, therefore, which fields would be ideal for you to hold your conference in.

"Industry 4.0 is all about digitalization. Digitalization entails data being transmitted

from sensors and information being extracted from the data. You then have to process that information so that you can take appropriate action, or control a machine. This, in turn, must result in more flexible production, efficiency gains in the production chain, or it must allow for the personalization of a product. Several companies in Flanders excel in data processing and extracting this valuable information, which in turn

allows you to take actions such as predictive maintenance or to anticipate variations in the production or supply chain, or to respond to the personalization requested by the customer.

In Flanders, there's also a lot of knowledge about automatization and about building automated production chains. However, the operator remains central in Industry 4.0. What is sometimes extremely complex to automate is child's play for an operator. Of course, she or he must receive the right information. That can be achieved through data processing, by extracting the right information from the data and then presenting it to the operator in a format he can work with".

### WORLD PLAYERS FROM AR TO CHIPS AND SENSORICS

"Of course, the first step is to take measurements. This can be done by using sensors in machines. In Flanders, we have Melexis, a world player in the field of chips and sensorics for the automotive industry. Among other things, they design sensors for lighting control, engine management, and charging systems, which are essential for electric cars.

Sensors and the processing of their data also plays a ma-

for role in making machines **autonomous**. For example, a drone can fly autonomously and carry out inspections in locations that are hard or dangerous to reach for humans, or forklift trucks can drive autonomously around a company site. Tractonomy Robots and AVT Europe develop autonomous vehicles for intralogistics.

"What is sometimes extremely complex to automate is child's play for an operator."

Flanders is also strong in **cybersecurity**, a lesser-known aspect of Industry 4.0. Security is of growing importance, given the increasing number of companies that suffer from online attacks. These happen not only via their IT systems, but also via ma-

chines in the production chain. The problem is exacerbated when machines are connected to the outside world, for example, for remote maintenance. Companies such as Toreon guide businesses through the selection and installation of security hardware and software architecture, and can also test the security of a machine fleet.

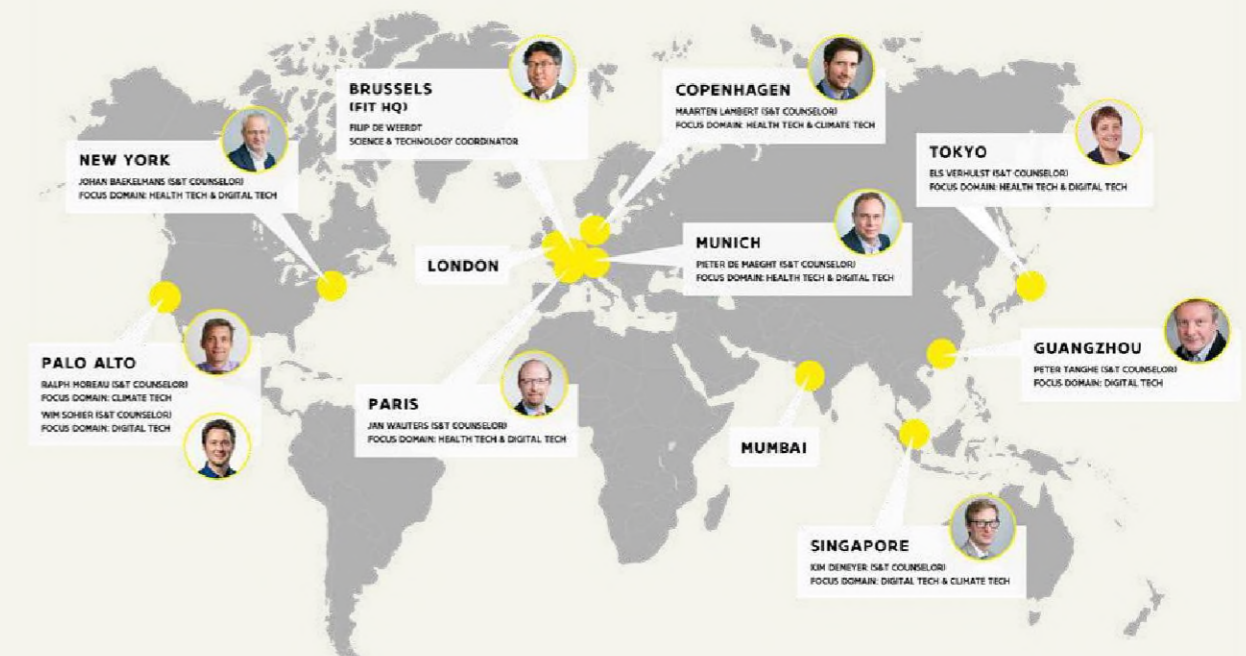
Operator assistance is also offered via wearables and sensors. Iristick has designed smart glasses that provide operators with information, or allow an expert to follow along remotely. Operators can also be supported via **augmented reality**, which guides them step by step through, say, assembly instructions. Arkite and Ansonat are two companies that make applications for operator assistance".

### INTERNATIONALIZATION IN 5 SECTORS

"Industry 4.0 is also fast moving outside Flanders, which creates business opportunities there. To-

gether with companies, governments, knowledge institutions, civil society, and clusters, we're accelerating the internationalization of companies from Flanders. In collaboration with 21 of FIT's structural partners, we are strengthening their international position in 5 sectors: Life Sciences & Health; Food; Smart Logistics; Solution-driven engineering & Technology; and Sustainable resources, materials & chemistry.

Of course, digitalization is a feature in all of these sectors, and that means that Industry 4.0 is present in these areas, too. That's why our technology attachés are perfectly placed to keep an eye on international markets, detecting opportunities for Flemish companies. And talking of opportunities: a conference or trade fair is still the ideal way for our innovative companies to meet international companies and do business".

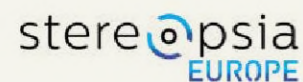


# WHY DID THESE INDUSTRY 4.0 CONFERENCES CHOOSE FLANDERS?

## STEREOPSIA

17-19 October 2022  
 MAISON DE LA POSTE,  
 BRUSSELS

Stereopsia is an international forum dedicated to immersive technologies and content. It is the ultimate gathering of entrepreneurs, investors, content creators, scientists, and audiences seeking new voices and fresh perspectives.



**ALEXANDRA GERARD**  
 CHIEF OPERATING OFFICER

*"With 85% of our participants coming from abroad, it was essential that our event be easy to reach. Moreover, our close ties with XR4Europe highlighted the key importance of being located in the capital of Europe and close to the European Institutions."*

## INNOVA FLANDERS

15-17 June 2022  
 ICC, GHENT

Innova Flanders focuses on the implementation of innovation within companies, organizations, and governments. It is aimed at four areas: innovation management; open innovation; ecosystem innovation; and social innovation. After editions in Boston, Cartagena, Dubai, and Bali, the organization has now chosen Flanders.



**DON KELEMAN**  
 MANAGING DIRECTOR AT  
 INNOVA FLANDERS

*"Ghent's vision and ambition to become Europe's technology and innovation capital fits perfectly with 'Make Innovation Real', the essence of Innova conferences. So, it didn't take long to decide to hold this edition of Innova in Ghent. And voilà, Innova Flanders was born."*

## FUTURE SUMMITS

17-18 May 2022  
 FMCCA, ANTWERP

Future Summits is the flagship event on nanoelectronics advances & deeptech solutions, organized by imec, one of the world's leading R&D and innovation hubs in nanoelectronics and digital technology. Thanks to inspirational talks, astonishing demos, and plenty of networking opportunities, it offers you the perspective you need to get a clear view of the tech future.



**ANNOUCK VANROMPAY**  
 EVENTS TEAM MANAGER AT  
 FUTURE SUMMITS

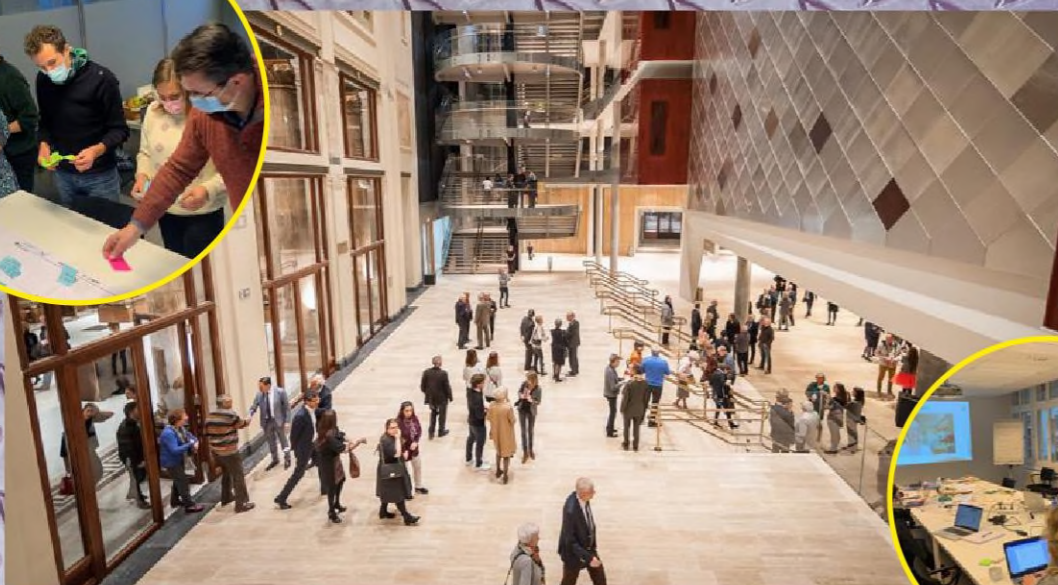
*"Antwerp is a city with a rich history, a bustling economy, cultural diversity, museums, shops, and architecture. Whatever's on your checklist, Antwerp has it. A Room with a Zoo (FMCCA) is a multi-functional convention centre with characterful meeting rooms and halls, located in the heart of the city, right next to Antwerp Central Railway station."*

## FLANDERS WELCOMES YOU!

Would you like to attend one of these top notch conferences on behalf of your association or as a PCO?

Contact TUYA BEYERS for more information.  
[tuya.beyers@meetinlanders.com](mailto:tuya.beyers@meetinlanders.com) or +32 2 504 04 61





## CREATE LEGACY IN FLANDERS WITH YOUR INDUSTRY 4.0 CONFERENCE

Your association wants its conference to create impact. You want to offer lasting and positive value for all stakeholders: your delegates; your sector; the venue; and society.

That's why Flanders is establishing legacy projects, to help associations achieve this crucial impact. We do this based on the "Theory of Change", developed by #Meet4Impact, a non-profit organization that aims to change the way we plan, measure, and talk about the events industry.

This methodology will help your association clearly define all components of your project together with your stakeholders. The result is that all the building blocks of a successful Industry 4.0 conference are revealed: the impact you are

aiming for; the results you want to achieve; and the activities you need to organize to achieve them.

VISITFLANDERS Convention Bureau is currently working with several associations to increase the sustainable impact of their Industry 4.0 conference. Are you interested in starting a legacy project for your conference? Legacy Expert Gemmeke De Jongh will gladly provide you with more information.



**GEMMEKE DEJONGH**  
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## “WHO IS RESPONSIBLE FOR ERRORS IN A FACTORY WHERE NO PEOPLE WORK?”

INDUSTRY 4.0 RAISES NEW ETHICAL QUESTIONS. THE PHILOSOPHY OF TECHNOLOGY PROVIDES ANSWERS.



LODE LAUWAERT  
Philosopher of technology KU Leuven

In 2018, Amazon conducted an experiment: they hired new employees using Artificial Intelligence. An algorithm screened applicants in an automated way, thus speeding up the application process.

The system was fed data from successful applicants from previous years. To everyone's surprise, when the procedure started, not a single female candidate was successful.

What was the problem? Amazon had built up a fundamental gender imbalance in the workplace in the past. Consequently, the AI was only fed CVs of successful male candidates. Any women were deemed unsuitable by the system.

### AI AND RESPONSIBILITY

This blatant form of discrimination reveals a pitfall of the technological advances being made in Industry 4.0. The use of machine learning, neural networking, AI, and automated technology raises new ethical questions. Questions that can be answered by philosophers of technology, says Lode Lauwaert from KU Leuven.

*"The stronger the development of autonomous systems, the stronger the question of who is responsible. There are almost completely autonomous factories in existence, where you don't see a single person on the work floor. If a mistake happens, who is responsible, and why? These aren't abstract philosophical issues, but concrete, topical, even burning questions - several months ago, the German government granted Mercedes permission to bring an autonomous car onto the market."*

*Artificial Intelligence offers many possibilities for solving problems. For example, it can detect problems faster, and on a larger scale. That can be crucial in tackling, say, a pandemic. But we must also be aware of the risks in terms of insecurity, privacy, bias, and responsibility."*

### REMAINING CRITICAL IS CRUCIAL

*"Three statements are very popular among entrepreneurs and technologists: technology is neutral; technology is disruptive; and technology is necessary. I believe that we should look critically at each of these three"*



statements. None of them are true. Technology is not by definition neutral, it is not necessarily disruptive, and not necessary tout court.

**"Technology is not by definition neutral."**

Technology is always a product of the society in which it is born. A particular technology of one society would simply not be developed in another society that held other norms and values. Think, for example, of the software that Starbucks uses

to draw up its workers' rosters. There is no human intervention involved anymore. Not necessarily a bad thing, but it is only possible within a specific management culture, which is focused on maximum efficiency and savings. That is our culture. That was not the culture of the Middle Ages or non-Western civilizations, which are much less focused on efficiency. I think it is important for people to adopt a critical attitude to their beliefs."

**WITH INDUSTRY'S FULL SUPPORT**

In Lode Lauwaert's experience, industry is open to the issues raised by the philosophy of technology.

"Companies within Flemish industry always respond positively to my requests for cooperation. Every year, we organize an international conference on the philosophy of technology. In September, it will be about politics, Artificial Intelligence, and technology."



**ARE YOU PLANNING AN INDUSTRY 4.0 CONFERENCE?**

Why not choose Flanders as your location, and enjoy the free support provided by VISITFLANDERS Convention Bureau, so you can

- ✔ meet interesting new partners
- ✔ create legacy with your conference
- ✔ get the technology needed for a hybrid conference
- ✔ organize a corona-safe conference
- ✔ receive a tailor-made experience programme
- ✔ get support with your project proposal
- ✔ provide an inspirational visit for your decision-makers

Association Expert TUYA BEYERS will be happy to provide you with more information.  
[tuya.beyers@meetinlanders.com](mailto:tuya.beyers@meetinlanders.com)  
or +32 2 504 04 61

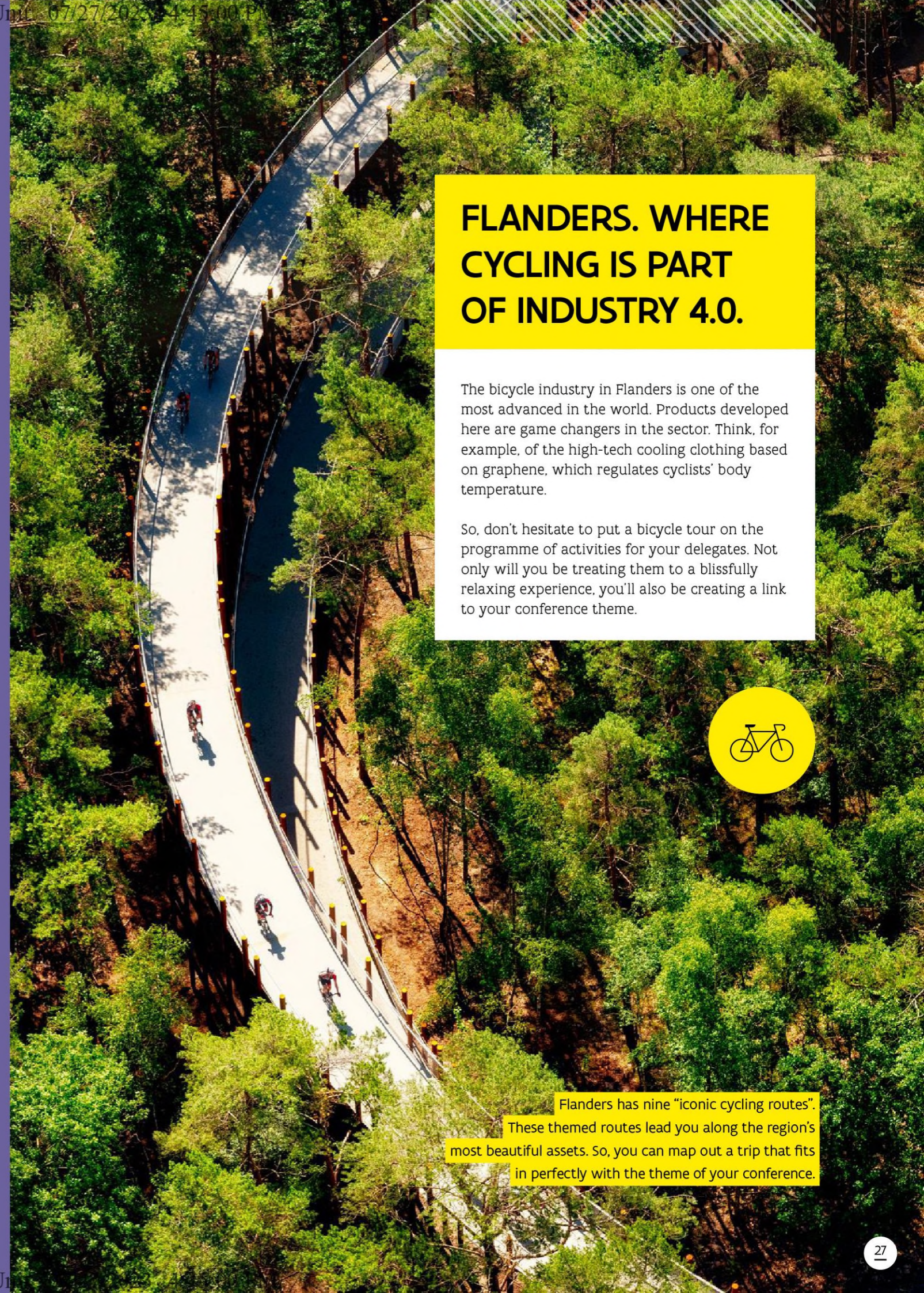
**FLANDERS. WHERE CYCLING IS PART OF INDUSTRY 4.0.**

The bicycle industry in Flanders is one of the most advanced in the world. Products developed here are game changers in the sector. Think, for example, of the high-tech cooling clothing based on graphene, which regulates cyclists' body temperature.

So, don't hesitate to put a bicycle tour on the programme of activities for your delegates. Not only will you be treating them to a blissfully relaxing experience, you'll also be creating a link to your conference theme.



Flanders has nine "iconic cycling routes". These themed routes lead you along the region's most beautiful assets. So, you can map out a trip that fits in perfectly with the theme of your conference.





In Limburg, your delegates will take an unforgettable cycling tour. They will literally cycle through water. TIME Magazine labelled this route as "one of the world's 100 greatest places".

# “I DON’T THINK THAT CHINA WILL REMAIN THE GLOBAL MANUFACTURING HUB”

## HOW THE INDUSTRY 4.0 EVOLUTION IS BRINGING THE LOCAL ECONOMY BACK TO THE FOREFRONT

Living Tomorrow is a remarkable spot in Flanders. It is a wormhole to the future, where visitors can discover which technologies will make our lives easier in the years to come. Not surprisingly, Industry 4.0 has a key role. CEO Joachim De Vos explains how Living Tomorrow came into being, and how the centre not only showcases the evolutions in Industry 4.0, but also helps to shape them.

“Living Tomorrow came into being a quarter of a century

ago. The year 2000 was approaching, and people felt very unsure about the future. The centre wanted to address this issue and clarify how emerging technologies would be used in our daily lives. Today, Living Tomorrow is a kind of Living Lab, a discovery platform that presents the story of the future.

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very unsure about the future. The centre wanted to address this issue and clarify how emerging technologies would be used in our daily lives. Today, Living Tomorrow is a kind of Living Lab, a discovery platform that presents the story of the future.

But we want to do more than just show the future. We also want to prepare for it. That happens inside Tomorrow Lab, where we work together



JOACHIM DE VOS  
CEO Living Tomorrow

with companies, organizations, governments, cities, and municipalities. For them too, it is often difficult to imagine how the future will evolve and how best to respond to it.”

and Consultancy], we’re thinking about the future of consultancy.

With drinking water company Farys, we’re mapping the future of water landscapes, and we’re doing the same for energy networks with Fluvius [network manager for electricity and natural gas]. For the electrification of vehicle fleets and autonomous driving we’re collaborating with Mercedes. With technology company ABB it’s all about robots and smart buildings, while with Fostplus [a key player in the circular economy] we’re looking at the future of recycling and the circular economy. With Miele it’s service robots and household appliances.

And there’s more examples. We’re working with Medtronic [specialized in medical technology] on the medical world, and we’re talking with

### BUILDING INDUSTRY 4.0 WITH 100 PARTNERS

“This collaboration is organized in vision groups, and it is in this framework that a great deal is happening around Industry 4.0. We’re working together with no less than a hundred partners. With Multipharma [a chain of 250 pharmacies], we’re building the pharmacy of the future. With construction company Cordeel, we’re working on all kinds of construction innovations. And with BDO [a big player in Audit, Accountancy

LIVING TOMORROW

the Purmo Group [sustainable climate solutions for the home] about everything related to energy and heating. With Q8, we're guiding the mobility transition throughout Europe: which services are involved in the shift from oil products to sustainable energy. We're also working together with cities, municipalities, government organizations, and public bodies."

**A WORLD FIRST IN DIGITAL TWINS**

"Digital twins is an Industry 4.0 issue that many of our partners are dealing with. We apply it ourselves in the Building Innovation Modelling system, which entails creating a complete digital model of your building in 3D. You then add dynamic data to it with the help of real-time sensors in the real world. For example, we're scanning buildings with drones to see how we can improve the insulation. Drones also conduct safety scans, for example, checking where dangerous objects are and where people are at risk on site. Cameras provide information

about which windows lack insulation, and how this can be fixed. This information is all fed into the model, so it becomes a digital twin of your building. All partners working on the building receive automatic feedback to optimize their systems and to produce better ones.

Living Tomorrow has even achieved a world first in the field of digital twins for product design. As part of the Future Vision project, we have created a hologram table that allows manufacturers to design and test products virtually. You actually see your product appear, and then you can read out all the data.

"Conferences play a key role in bringing together ideas and companies."

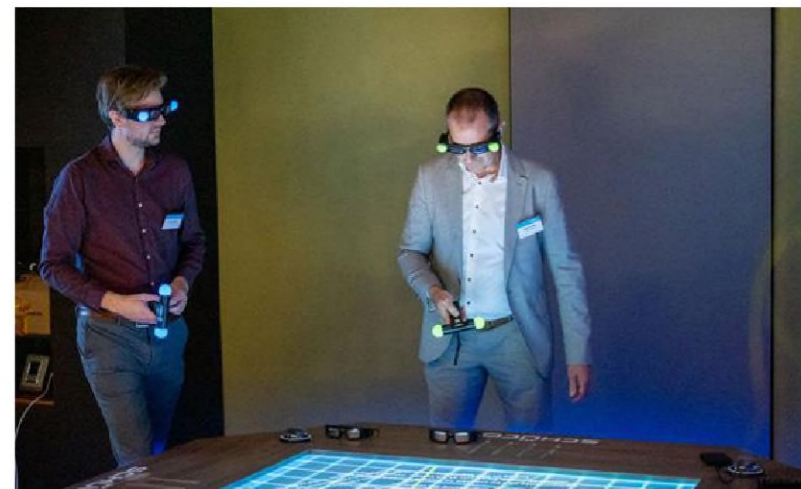
We are also working hard on service robots. For example, together with Mercedes, we're looking at how we can work

with brainwaves in the AVTR [Mercedes' car of the future]. Not to control the car – because the AVTR is intended to drive completely autonomously within ten years – but to control the entertainment functions. So, we're looking for completely new interfaces in the car of the future. Because it will no longer be necessary to pay attention to the road, we will have a lot of free time in this kind of mobility cocoon."

**IN SEARCH OF THE IDEAL DIGITAL INTERACTION**

"Conferences play a key role in bringing together ideas and companies. They provide an enormous amount of inspiration. This year, for example, we are organizing a conference with Ghent University Hospital and the Belgian army, at which we will translate military medical innovations into practice for civil patients like you and me.

Many conferences are now a hybrid of physical attendance and video meetings, and I feel that a certain fatigue has set in. People don't just attend conferences to learn, they also want to network. At Living Tomorrow, we're looking for the ideal digital interaction. Why should we still be thinking about mega-conferences with thousands of visitors? We're considering this question with a group that has hotels in almost every country in the world. If you can connect these hotels virtually, with say 200 people per hotel, then you can also bring ten thousand people together. Using holographic projection, you can give people the feeling that the speaker is



present. Demonstrations can be experienced in 3D, partly by personalizing them for each country. That way, people don't have to travel thousands of kilometres to hear six speakers, and it's much easier to organize."

**FROM MASS PRODUCTION TO PERSONALIZED PRODUCTION**

"The era of hyper-mass production is coming apart at the seams. The logistics chains are under pressure. There are chip shortages and materials shortages; as soon something goes wrong, growth comes to a halt.

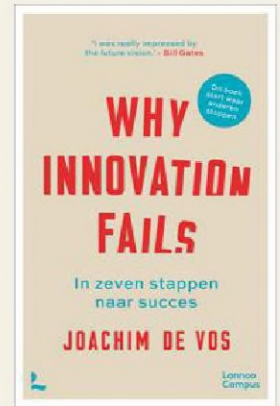
"Industry 4.0 is a game changer, because it facilitates the shift from mass production to mass customization."

Industry 4.0 is a game changer in that respect, because it facilitates the shift from mass production to mass customization. With mass production, the production moves to low-wage countries, because only the cost of the product counts. With mass customization, it's the range that matters. You're no longer focused on one, mass-produced item, but instead on a broader range of products. Efficiency then becomes the decisive factor, which drives the evolution towards high-tech products. As a manufacturer, you can take it one step further and move towards personalized production, which leads to

added-value personalized products with built-in sensors.

If you look at this evolution from the consumer's perspective, there's a shift from making a simple purchase to making a choice, because in mass customization a much broader range of products is possible. This requires a company to be closer to its customers, which become in a way co-designers. Tesla is a great example of this. They put a car on the market that is not 100% finished. While the car is driving, feedback is sent to the central system, which continues to improve the cars. More and more products will come onto the market at an early state and get better and better through all kinds of updates. This is how the shift from mass production to personalized story happens.

In the past, you needed a mega factory to produce a million items, otherwise you couldn't make a profit. These mega factories were built in low-wage countries. But I don't think that countries like China will remain the world's manufacturing hub. With the evolution towards personalized production, local production will become important once again. Which implies that the ownership of raw materials will also remain local. They will be reprocessed, because it must all happen in a circular way. And that is exactly what we excel at in the Western world. That creates enormous opportunities for our region to become a world player once more."



**RECEIVE A FREE COPY OF WHY INNOVATION FAILS BY JOACHIM DE VOS**

Joachim De Vos has written a fascinating book about innovation in Industry 4.0. In *Why Innovation Fails*, the CEO of Living Tomorrow describes the past industrial revolutions, and how we are now evolving towards a sustainability revolution. No continent is better positioned than Europe to play a leading role in this evolution.

The book will be published in June 2022. Would you like to receive your complementary copy fresh off the press?

Contact Association Expert TUYA BEYERS at [tuya.beyers@meetinlanders.com](mailto:tuya.beyers@meetinlanders.com) +32 2 504 04 61



Joachim De Vos takes the lead in a short video in which Flanders introduces itself as the ideal destination for your conference. Watch the stylish film here, shot between the Industry 4.0 installations at Living Tomorrow



## FLANDERS. BECAUSE INNOVATION IS PART OF OUR HERITAGE.

Industry 4.0 is all about innovation. This innovation mentality is woven into the DNA of Flanders, and can be found everywhere in its heritage.

Take your delegates on a trip to our museums, and admire the works of innovative artists such as Rubens, Van Eyck and Bruegel. Be amazed by the groundbreaking architectural highlights in our cities. Visit the innovative creations in the ModeMuseum.

Your association has a wealth of choices, with guaranteed impact on your guests. VISITFLANDERS Convention Bureau and its partners are happy to help you put together an unforgettable programme.





# “INDUSTRY 4.0 NEEDS PROFILES THAT LOOK OVER THE WALLS OF DISCIPLINES”

## VIRTUAL REALITY AS A DRIVER OF INDUSTRY 4.0



**CEDERIK HAVERBEKE**  
Managing Director  
XR Valley vzw

Industry 4.0 is an all-encompassing term. Cederik Haverbeke, the Managing Director of XR Valley, uses a definition that is as simple as it is inspiring: all industry becomes smart. According to him, XR – an umbrella term for augmented and virtual reality – can play a key role in this development. What’s more, XR can have an even greater impact, and be the definitive catalyst to digitalize society.

Digitalization is the essence of XR technology, which is aware of who you are, where you are, how you react to your environment, and how your environment reacts to you. XR technology wants to make our interaction with the digital world as natural as possible, which will make it more accessible to all sections of society.



**JELLE DEMANET**  
Manager HIT Lab

### XR AS A NATURAL INTERFACE WITH SOFTWARE

According to Cederik Haverbeke, Flanders will play a pioneering role in this evolution.

*“Our region is the epitome of a knowledge economy, and, simply put, XR is an interface with your knowledge. Someone comes up with a solution to a problem, so that idea is in his head. But as soon as this idea is converted into a digital application, anyone can use the solution, again*

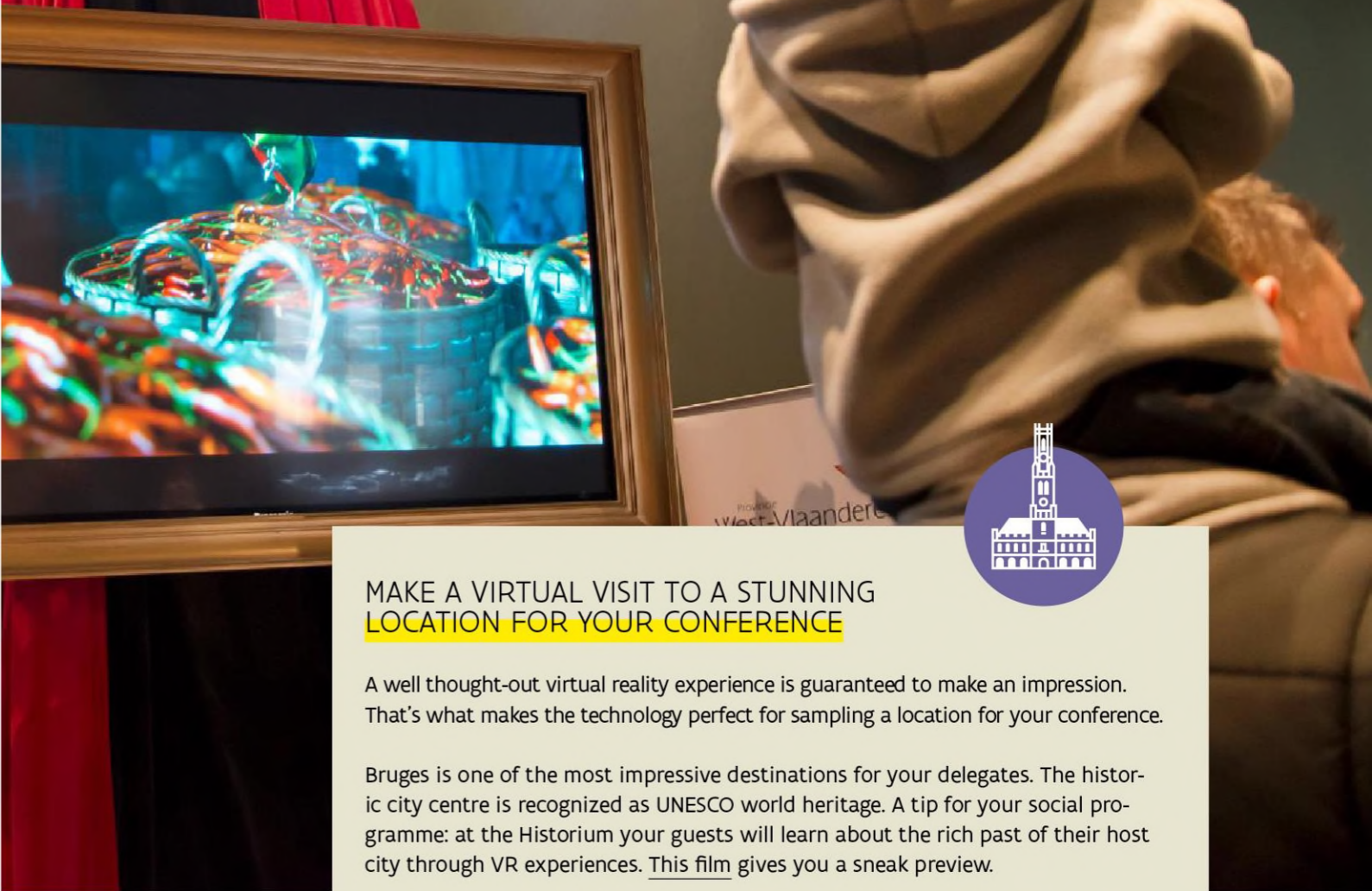
*and again. Digital applications are the crystallization of knowledge, and XR is the natural interface with these applications.*

*XR technology is also a location-based technology, for which you need installations. That is not the case with an internet business, which you can start up in your basement and whose target audience is potentially the whole world. The more complex XR becomes, the more important your location and your network are. As a European hub, Flanders offers a great advantage. From here, you can quickly reach*

*London, Paris, and other European XR clusters. Moreover, our region’s digital infrastructure is excellent, which guarantees good connectivity. This is thanks to numerous Flemish initiatives, such as recent investments by both the government and private companies.”*

### LEARNING “IN REAL LIFE”

*“Connectivity is crucial for setting up an Industry 4.0 manufacturing business. XR technology can help achieve a competitive advantage*



more quickly. Instead of firing knowledge at employees, as happens in the traditional training system, XR allows employees to learn "in real life". Workers can also get live assistance from a digital coach or assistant during their operational tasks.

Of course, setting up this kind of innovative work floor is no mean feat. Flanders is the ideal location to explore how such a factory should be built and what challenges you may have to overcome. The top talent that can help you is never far away. Once your manufacturing business is up and running, you can easily scale up your digital applications and factory expansion to the rest of the world".

### LOOKING OVER WALLS

One reason why Flanders is an ideal location for virtual reality – and so also for your conference in this field – is the presence of experts. This asset is no coincidence. It is one of the spearheads of policy in Flanders, says

Jelle Demanet, who, as the manager of HIT Lab, is also involved in the XR Valley project.

"Industry 4.0 needs profiles that can look over disciplinary walls. Experts must have both psychological and pedagogical knowledge, because you want to facilitate knowledge transfer and to support people, but, at the same time, this needs to be done in a way that is technically feasible.

There is a lot of talk today about humancentric design. But the end-user is rarely involved in the early stages of the development process, because most companies are purely focused on technology. Software developers are part of a closed community

"Digital applications are the crystallization of knowledge, and XR is the natural interface with these applications."

of people who think alike, and are technologically strong and artistically oriented. But that doesn't reflect the target group of people who need to work with the solution. The developers lack the knowledge to build a pedagogically perfect training. That's why XR technology often fails to break through, despite its incredible potential. There is too little consideration of this pedagogical dimension at the start."

### INTEGRATOR PROFILES WANTED

"With XR Valley, we want to build a bridge between companies and research centres, colleges, and universities. We're inventorying which profiles are necessary to translate XR technology into solutions that are fully adapted to the end user, in all its psychological and pedagogical facets. These are the so-called "integrator profiles".

### MAKE A VIRTUAL VISIT TO A STUNNING LOCATION FOR YOUR CONFERENCE

A well thought-out virtual reality experience is guaranteed to make an impression. That's what makes the technology perfect for sampling a location for your conference.

Bruges is one of the most impressive destinations for your delegates. The historic city centre is recognized as UNESCO world heritage. A tip for your social programme: at the Historium your guests will learn about the rich past of their host city through VR experiences. [This film](#) gives you a sneak preview.

Afterwards, your delegates are more than welcome in the Duvelorium Café, to sample an authentic Duvel on tap. This is another way of treating them to world heritage, because Belgian beers are also recognized as UNESCO world heritage.

**Interested in holding your conference in Bruges?** Get in touch with the [Visit Bruges Convention Bureau](#), the city of Bruges' official conference bureau.

In my own lab at Hogeschool Howest – the Human Interface Technology Lab, HIT Lab for short – we work in an anti-disciplinary way. The trick is getting game developers and data scientists to work together on projects with researchers and experts from other fields. An occupational therapist who cannot write a single line of code puts his head together with a data scientist and a game developer. This means that you can test solutions quickly and develop Proofs of Concept that are optimally adjusted to the end user. For example, colleges, universities, and research centres can take over some of the R&D from companies, saving time and money. Various research groups and laboratories – such as the Thomas More Hogeschool Experience Hub, AP Hogeschool's Immersive Lab, the MICT research group at Ghent University, and the Polymath Lab at LUCA School of Arts – adopt a similar vision, and this is already bearing fruit. In my role at XR Valley, I try to connect the researchers from these groups, to jointly develop a unique Flemish and Belgian vision so that we can act internationally as a community of XR researchers.

In fact, our Flemish working method is a great model for the rest of the world. We work with small budgets on small projects, where we have to prove what we can do. More so than elsewhere, we focus on people, on the user – that is our USP. Flanders is also centrally located in Europe, on the border of the two dominant cultures: the North and the South.

"The trick is getting game developers and data scientists to work together on projects with researchers and experts from other fields."

What's more, Howest's course in Digital Arts & Entertainment has once again been voted the best game development school in the world. So, you could say that the best game developers come from Flanders."



## WELCOME TO THE HEART OF THE ACTION

Jelle Demanet's HIT lab is happy to open its doors to your conference delegates. Your guests will discover how technological and pedagogical profiles are developing new solutions together.

### Want to know more?

VISITFLANDERS Convention Bureau will be happy to organize a customized experience programme for your association or PCO.

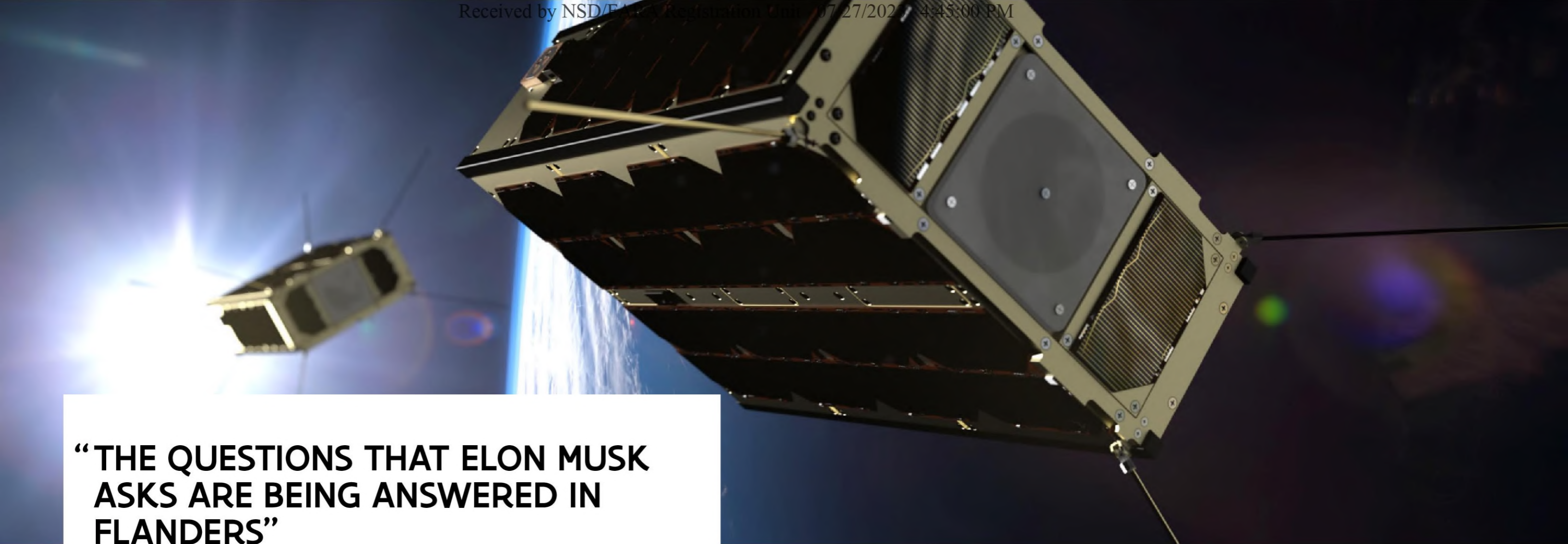
Contact TUYA BEYERS for more information.  
[tuya.beyers@meetinlanders.com](mailto:tuya.beyers@meetinlanders.com)  
 or +32 2 504 04 61



# PROTECT ENDANGERED WILDLIFE WITH YOUR INDUSTRY 4.0 CONFERENCE

Future Summits 2022, the world-renowned tech event organized by imec, takes place in Room with a ZOO – Flanders Meeting & Convention Centre Antwerp (FMCCA). As the name suggests, you will receive your delegates in an impressive location: a zoo with gorillas, lions, giraffes, and other exotic animals. They will be talking for years about their reception in the Aquarium, the acoustics of the Queen Elisabeth Hall, and the sessions in the Darwin Hall, with the giant whale skeleton on the ceiling. Important to know: FMCCA invests the proceeds from conferences in animal welfare, the protection of endangered animals, and scientific research.





# “THE QUESTIONS THAT ELON MUSK ASKS ARE BEING ANSWERED IN FLANDERS”

## SPACE TRAVEL AS A CORNERSTONE OF INDUSTRY 4.0

The space industry is a growing sector within Industry 4.0. Today, the global market represents 400 billion dollars, a figure that can grow to 2.700 billion dollars by 2045. According to Kris Vanderhauwaert, Managing Director of the Flemish Space Industry (VRI), the sector is not only economically important, it also has a great social relevance.



**KRIS VANDERHAUWAERT**  
Managing Director of  
the Flemish Space Industry (VRI)

### THE IMPACT OF SPACE TRAVEL

*“Space travel helps to tackle societal challenges. We all saw the floods in Belgium and Germany this summer. Well, we knew there would be catastrophic rainfall thanks to data from satellites. Space can also be an important factor in the green deal, the digitalization of society, and in our response to climate change.*

*In addition, space travel can also improve mobility. We are all stuck in traffic jams, so, sooner or later, road user charges will become a fact. They will be calculated with the help of telephone masts and 5G, but also with satellite data. So you need*

*space infrastructure to manage this effectively. Another example of the social importance is forest management. Using Earth obser-*

*“You can conduct experiments in the International Space Station at the cost of only 50,000 euros.”*

*vation data, we can see where forests are disappearing and where they are being added.”*

### BAKING BREAD ON MARS

The engine driving the space industry in Flanders is called – appropriately – the Flemish Space Industry (VRI). It groups 42 Flemish companies, and research and educational institutions that are active in the sector. VRI sees bringing people around the table as a crucial task, bridging the gap between the space industry and other sectors. Kris Vanderhauwaert:

*“We met with the pharmaceutical sector and the bio-industry sector to discuss research in a vacuum. In the International Space Station it’s possible to conduct experiments on, say,*

*the protein crystallization of medication for 50,000 euros. We have also collaborated on robotics. After all, the space industry uses robots which you can also deploy, for example, to inspect offshore drilling platforms in the Atlantic Ocean. With a bakery products manufacturer, we are currently thinking about how you can make bread on the moon or on Mars. Investigations are underway into whether wheat can grow underground, where the plant is protected against cosmic radiation.*

*These efforts are bearing fruit. Take the rockets being launched by Elon Musk, with the ultimate goal of putting people on*



Mars. To fly the rocket you need semiconductors, technology, control systems, electronics, and chips. You need to know how to protect people from cosmic rays, and what the impact of micro-gravity is on the heart. How can astronauts make calls or surf the internet? The questions that Elon Musk is asking are being answered in Flanders. Our technology is in every link of that value chain."

**A STAR LOCATION FOR YOUR SPACE TRAVEL CONFERENCE**

According to Kris Vanderhauwaert, Flanders possesses unique assets for a space conference.

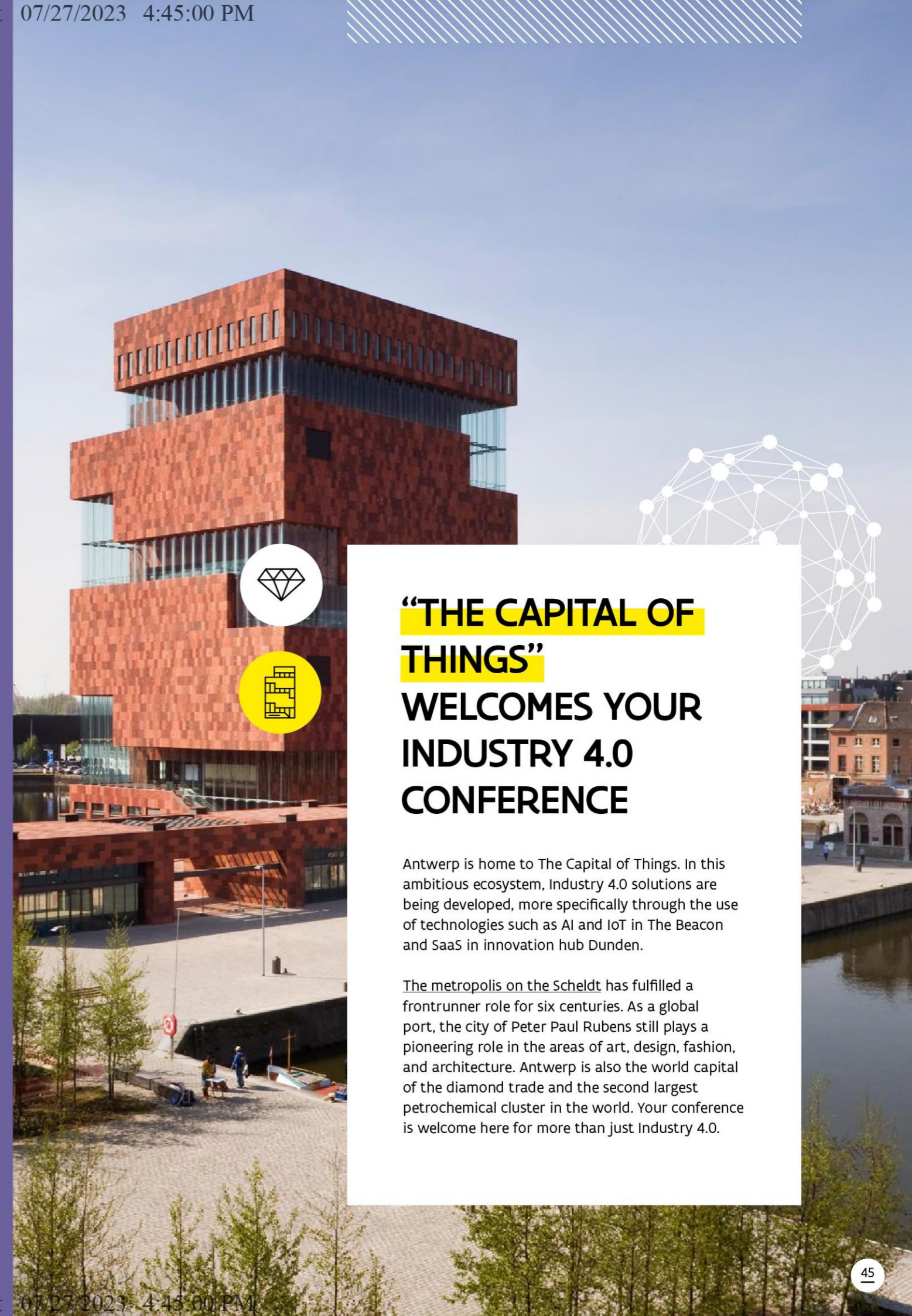
"You'll find the experts that you need for a successful conference in Flanders. Through research mandates, talented doctoral or post-doctoral students get the opportunity to start their careers in aerospace.

**"You'll find the experts that you need for a successful conference in Flanders."**

The VRI is also setting up Living Labs for the use of space data. And we stimulate cooperation between companies and re-

search institutions in highly innovative scientific and applied research.

So, there is a lot of know-how available, which we share at events and workshops. We organize seminar for experts, combined with a programme for the general public. We participate in specialized trade fairs, such as Le Bourget in Paris and SpaceTechExpo in Bremen. This allows our companies and experts to get to know each other's products and technology. It also creates new networks."



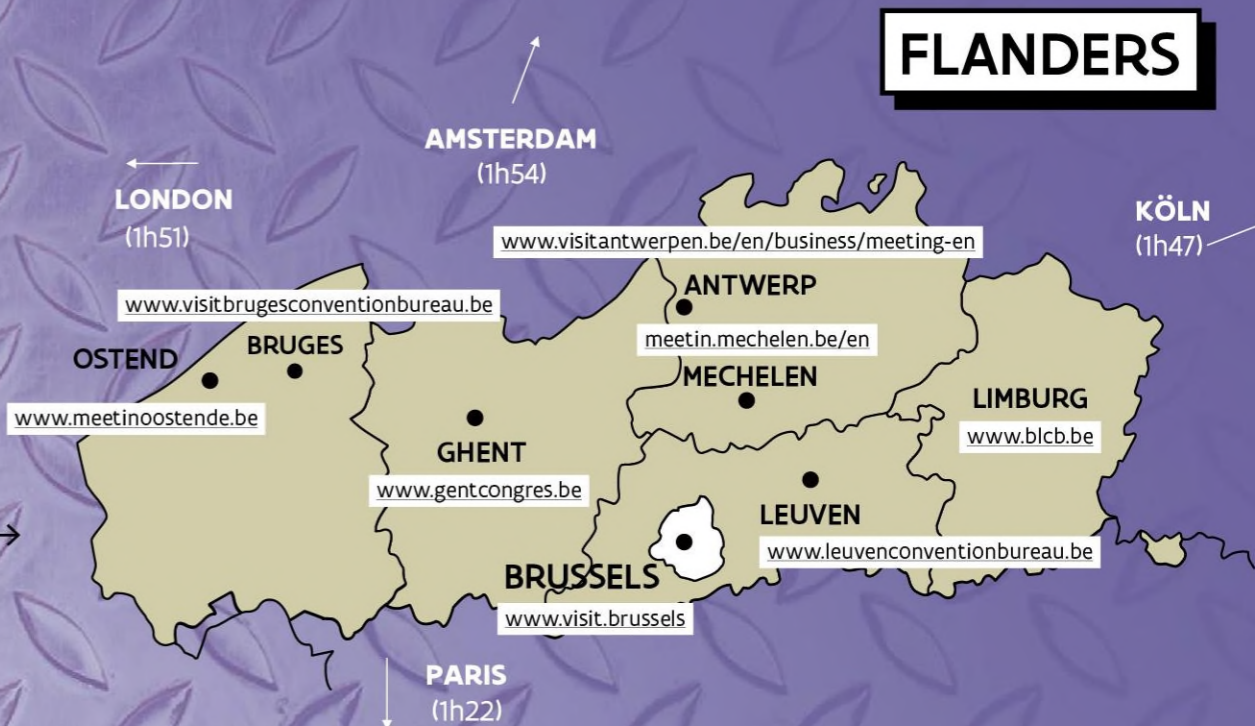
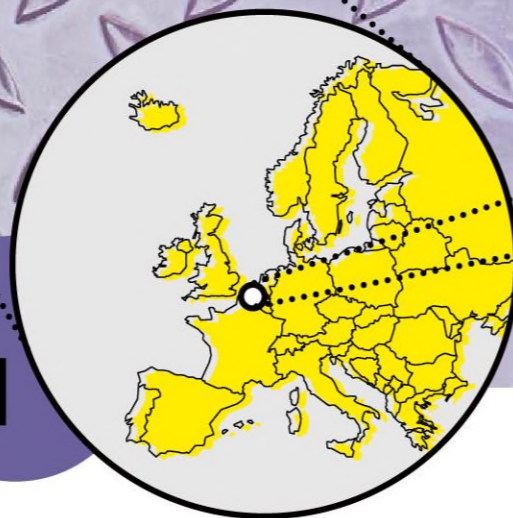
**"THE CAPITAL OF THINGS" WELCOMES YOUR INDUSTRY 4.0 CONFERENCE**

Antwerp is home to The Capital of Things. In this ambitious ecosystem, Industry 4.0 solutions are being developed, more specifically through the use of technologies such as AI and IoT in The Beacon and SaaS in innovation hub Dunden.

The metropolis on the Scheldt has fulfilled a frontrunner role for six centuries. As a global port, the city of Peter Paul Rubens still plays a pioneering role in the areas of art, design, fashion, and architecture. Antwerp is also the world capital of the diamond trade and the second largest petrochemical cluster in the world. Your conference is welcome here for more than just Industry 4.0.



**EUROPE**



**FLANDERS**

## FLANDERS: EASY TO REACH FOR DELEGATES FROM ALL OVER THE WORLD

Want to know more about a conference on Industry 4.0 in Flanders?



EXPERT TUYU BEYERS IS AT YOUR SERVICE:

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# THE INDUSTRY 4.0 ECOSYSTEM IN FLANDERS

THESE ORGANIZATIONS AND INSTITUTIONS SUPPORT YOUR CONFERENCE AS POTENTIAL LOC MEMBERS



## INTERNATIONALLY RENOWNED UNIVERSITY COLLEGES

- Howest
- RITS
- LUCA School of Arts
- PXL-MAD
- Thomas More
- HOGENT
- Karel de Grote Hogeschool



## TOP-CLASS UNIVERSITIES

- KU Leuven
- Ghent University
- UAntwerp
- UHasselt
- Free University of Brussels

# INDUSTRY 4.0 in Flanders



## CUTTING EDGE RESEARCH CENTRES

- imec
- Flanders Make
- Living Tomorrow



## GOUVERNMENTAL AGENCIES

- VLAIO
- FIT



## SECTOR & NETWORK FEDERATIONS

- SIM
- VIL
- Sirris
- XR Valley

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