October 2018

Industry 4.0: The perspective of start-ups and scale-ups in Belgium

57%
of respondents said that the maturity of the technology was key in setting up their businesses.

83%
of our respondents stated that their solution will improve overall operational performance.

43%
feel that the industry does not yet fully understand the (added value of the) technology that's offered.

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Foreword

Digital operations, or Industry 4.0, are high on the agenda of manufacturing companies around the globe. Due to the complexity of the topic and the fast pace at which the technology markets are moving, business leaders are struggling to develop and execute an overall digital strategy due to challenges like technology maturity and uncertainty, access to talent and the potential impact on people and company culture.

As our global digital operations study (*Reference 1*) of April 2018 revealed, only **10% of global manufacturers can be considered true digital champions**. Asian Pacific companies are leading the way and European manufacturers are lagging behind. The study focuses on how digital champions master the orchestration of **four different ecosystems: customer solutions, digital operations, technology and last but not least, people**.

Each ecosystem represents an array of partners, suppliers, products and services, employees, third-party advisors, factories, outsourcing arrangements, technology and customers.

What about the Belgian Industry 4.0 ecosystem?

Last year, we investigated the maturity of Industry 4.0 in Flanders (*Reference 2*) by questioning 30 industrial companies about their Industry 4.0 expectations, strategies and progress. The study revealed that expectations and interest in the topic are high, but **most companies are careful with their investments** and are struggling to attract the right talent to take the required next steps.

One year later, progress has been made but the dust hasn't settled. For this 2018 study, we looked at another important stakeholder in the Belgian ecosystem: **the start-ups and scale-ups** offering solutions to help industrial companies embrace the benefits of their digital transformation.

We surveyed 30 key people from start-ups and scale-ups to understand their value propositions and corresponding go-to-market strategies. By understanding their challenges to scale up, as well as their needs within an effective ecosystem, **we want to bridge the gap between larger industrial companies and smaller solution providers**.

In the end, the Belgian manufacturing economy will only flourish if the overall ecosystem joins forces and directs available energy and resources towards a shared goal.

Peter Vermeire
Partner Management Consulting, PwC Belgium

Executive Summary

Industry 4.0: The perspective of start-ups and scale-ups in Belgium

Executives from 30 Belgian start-ups and scale-ups that provide digital solutions to industrial companies weighed in on our 2018 Industry 4.0 report, the first of its kind in Belgium. This study sheds light on the start-ups' value propositions and go-to-market strategies, as well as their perceptions, challenges and next steps related to the Industry 4.0 ecosystem in Belgium.

Start-ups see Belgium as a springboard

As the current start-up landscape is largely technology driven, a great deal of time and effort is spent on determining and developing the right applications and business value. Start-ups are ambitious and generally view Belgium as an exploration market within which to test their products and strategies before breaking into larger markets.

Industries overemphasise operational performance

The solutions offered by start-ups mainly focus on improving the operational performance of industrial companies, which is in line with the expectations of Belgian industry. However, this is only a subpart of Industry 4.0 and won't singlehandedly bring companies to full 'digital champion' maturity. Setting up digital product and service offerings and strengthening customer access with new business models are just as important.

Proof of concept (PoC) brings solutions to life

Start-ups showcase their offerings with PoCs, which enable companies to explore the added value of a solution. PoCs are developed within a short time frame – generally less than three months – and at relatively reasonable costs. They provide the client with a real-world view of a product's application and are therefore an important step in building a business relationship with a company.

The Industry 4.0 ecosystem enables start-ups

Ecosystems are enablers for start-ups to increase awareness of their companies and offerings and to grow their businesses. While there's significant focus on helping start-ups, respondents feel the ecosystem needs to place more emphasis on scaling. Areas for improvement also include deeper industrial expertise and input.

Next steps: the ecosystem must rethink its objectives

To ensure future success from both a start-up and an industry perspective, the ecosystem has to develop clear strategic objectives that look beyond one-time PoCs. Start-ups and industrial companies need to intensify collaboration and rethink existing processes with a new approach. Ultimately, Belgian manufacturing can only prosper when both parties work together to achieve a common objective.

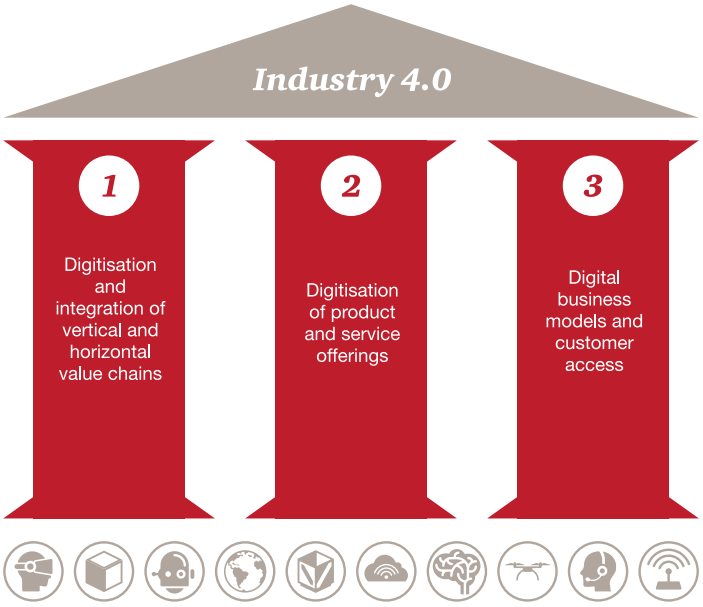
About the study

Industry 4.0 is gaining traction worldwide as business leaders of industrial companies embrace it and respond to this new manufacturing environment. (*Visual 1 refreshes our definition of Industry 4.0*) The main driver behind this (r)evolution is the rapid development of emerging technologies. As these technologies become increasingly mature and accessible, different solutions are brought to market by both existing and new players, from one-person companies to large venture-funded teams. This results in a rather scattered landscape and a very dynamic market, which makes it difficult for larger corporations to keep track of available solutions and to determine the best fit for their strategies.

This study is the first of its kind in Belgium and aims to develop a viewpoint on the **Belgian landscape of Industry 4.0 solution providers, with a focus on the new players and the Digital operations ecosystem**. To achieve this, PwC Belgium conducted a series of face-to-face interviews between May and August 2018 with **30 founders/ executives of Industry 4.0 solution providers**, ranging from new start-ups with small teams (24 companies) to mature scale-ups (6 companies) currently expanding their teams and solutions (*see section 6 for an overview of participants*).

We explored the context in which these companies operate, discussed their go-to-market strategies and identified lessons learned when building their companies and entering the industrial market. Last, we asked for their assessments of the current ecosystem in Belgium and discussed next steps.

Visual 1. **a business viewpoint**



1

Digitisation and integration of the horizontal and vertical value chain

Industry 4.0 digitises and integrates processes vertically across the entire organisation, from product development and purchasing through manufacturing, logistics and service. All data on operational processes, process efficiency and quality management and operations planning is available in real time. Horizontal integration stretches beyond internal operations to suppliers and customers and across all key value chain partners. It includes technologies from track-and-trace devices to real-time integrated planning with execution.

2

Digitisation of product and service offerings

Digitisation of products includes the enhancement of existing goods, e.g. by adding smart sensors, as well as the creation of new digitised products which focus on completely integrated solutions. By integrating new methods of data collection and analysis, companies are able to generate data on product use and refine products to meet the increasing demands of end customers.

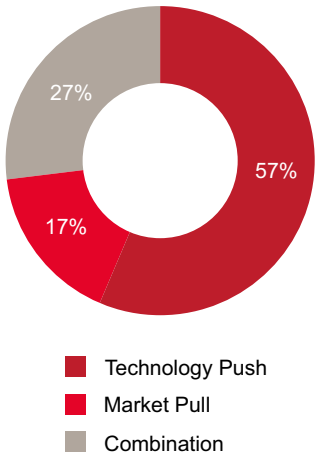
3

Digital business models and customer access

Leading industrial companies also expand their offerings by providing disruptive digital solutions such as complete, data-driven services and integrated platform solutions. Disruptive digital business models are often focused on generating additional digital revenues and optimising customer interaction and access.

1. Characterising the landscape

Graph 2.
What has been the driving force to bring your idea/product to the market?



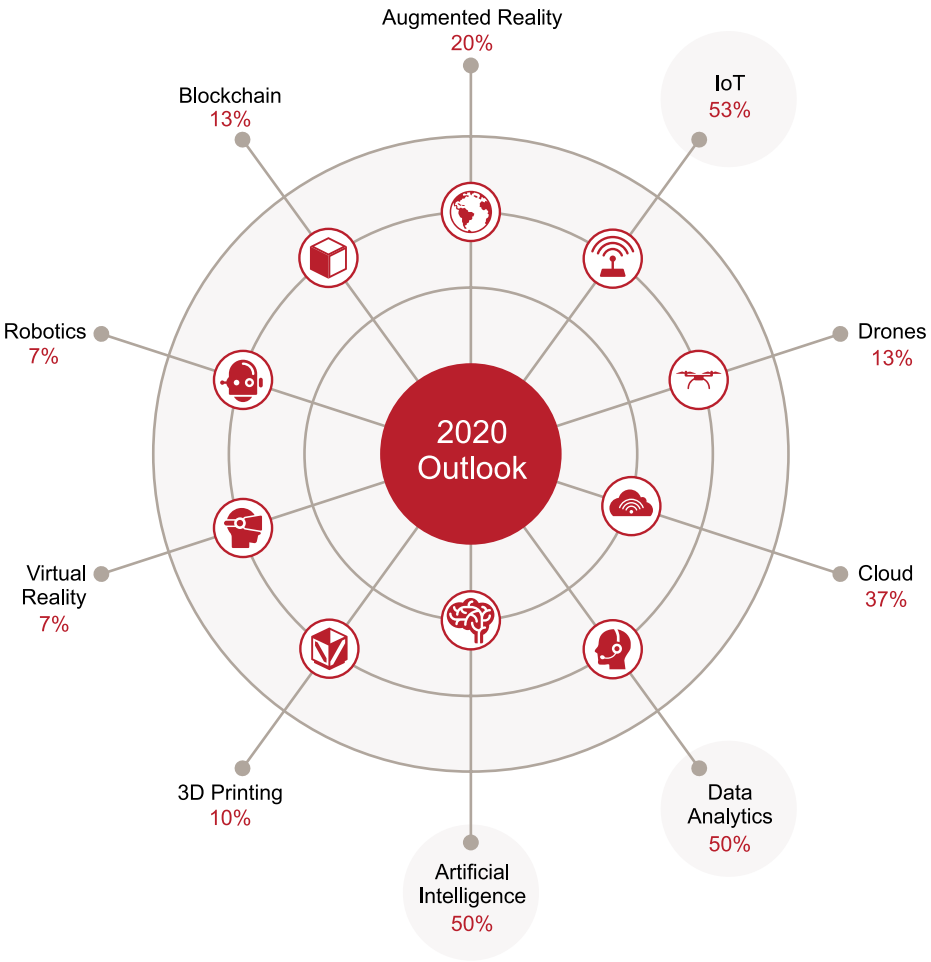
A. Technology as the main driver

According to 57% of respondents, the maturity of the technology was key in setting up their businesses. We identified three categories in this group: the first developed a physical product (e.g. smartglasses), the second developed a specific service required by the industrial environment (e.g. advanced data analytics) and the third is a combination of the first two (e.g. Internet of Things (IoT) platforms).

We learned that 27% of respondents started their businesses from a combination of a market need together with the idea that the new available technologies could potentially provide a better solution. Only 17% of respondents started from an actual market need and then began searching for the right technology to support the solution.

As a consequence, the whole Industry 4.0 ecosystem of industrial companies and solution providers is focusing its energy on determining the right applications and use cases of technology to reveal the added value of the proposed solutions.

Graph 3.



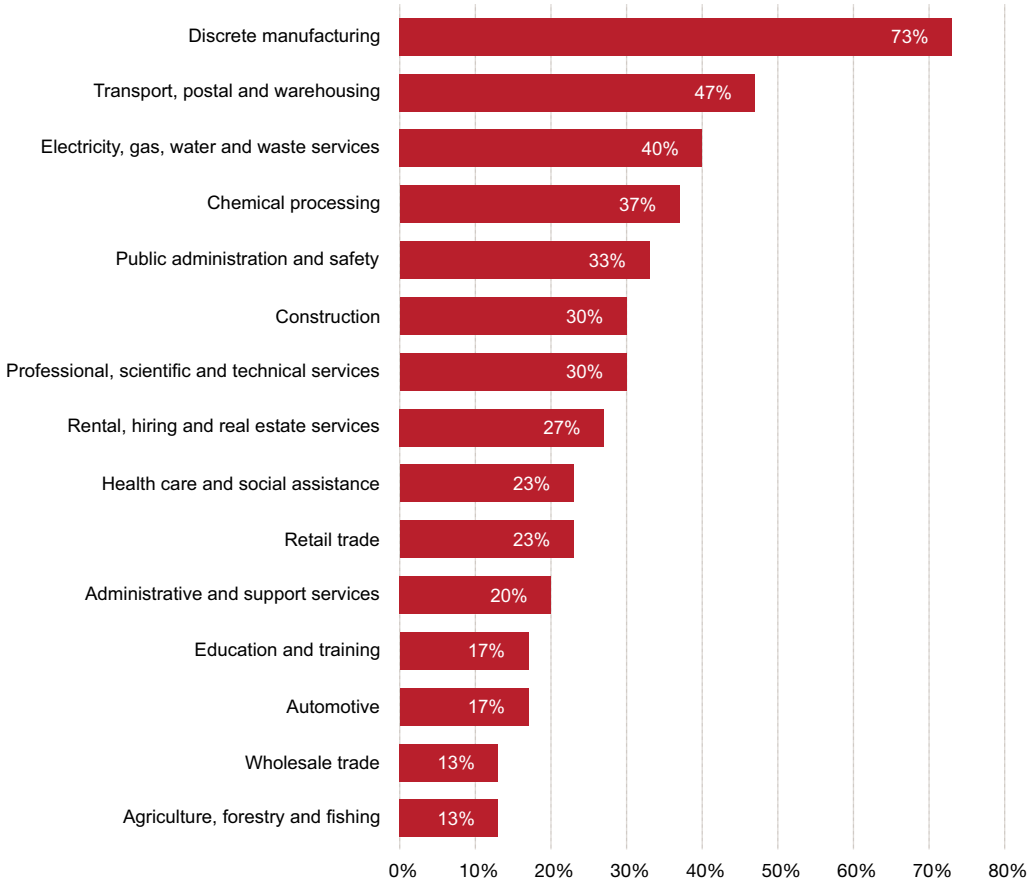
B. Selling solutions instead of selling technology

In 2016, PwC developed a framework of 10 technologies that are most influential on businesses worldwide now and in the very near future. **Graph 3** shows which technologies are foundational to our participants in the Industry 4.0 market.

Internet of Things (53%), data analytics (50%) and artificial intelligence (AI; 50%) are the most commonly adopted by our respondents, whereas robotic process automation (RPA; 7%) and virtual reality (VR; 7%) are the least common.

The Industry 4.0 solutions of today are not limited to one technology. Usually, one core technology is at the heart of the solution and in its process, other emerging technologies can be added/ embedded to further develop the end solution. This way, start-ups are able to offer solutions that address a holistic business issue, rather than a pure technology-based product.

Graph 4. **To which industries is your startup aiming to add value?** *(Multiple answers possible)*



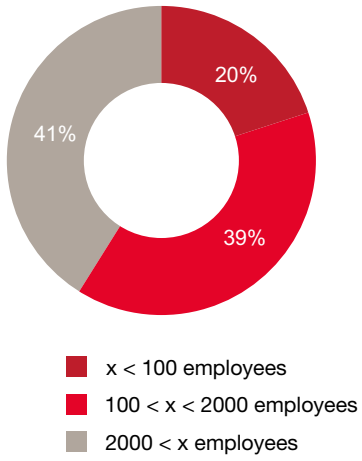
C. An ambitious and dispersed target market

Graph 4 pictures the industries on which our respondents are focusing. The reason why this is quite dispersed is that the available solutions are intended to be universally applicable and are not limited to a specific industry, which should encourage industries to leverage each other's experiences.

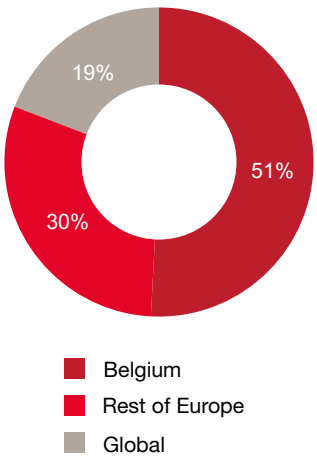
Graphs 5 and 6 show the typical targeting profile of our participants, both on company size and location. Our participants are not afraid to think big, as they mostly target larger companies.

Next to that, the home market remains significant in the early stages of market exploration, however most respondents see the need to think globally when building their business.

Graph 5. **Who is your target customer?** *(company size)*



Graph 6. **Who is your target customer?** *(location)*



"We're active in the Belgian market with our software Proceedix, mainly at local factories that act as a pilot plant for a multinational group. We like to see the Belgian market as a exploration market to enrich our understanding of client needs. But our target market is the USA, as the overall market size is larger and the rate of adoption is higher than the rate within Europe. This is reflected in the content of our sales discussions, where we need to address cost and risks in Europe versus focusing on opportunities and benefits in the USA."

Peter Verstraeten, CEO Proceedix

2. Assessing our panels' view vs. the industry's view on Industry 4.0

A. Improving operational performance is the key value proposition

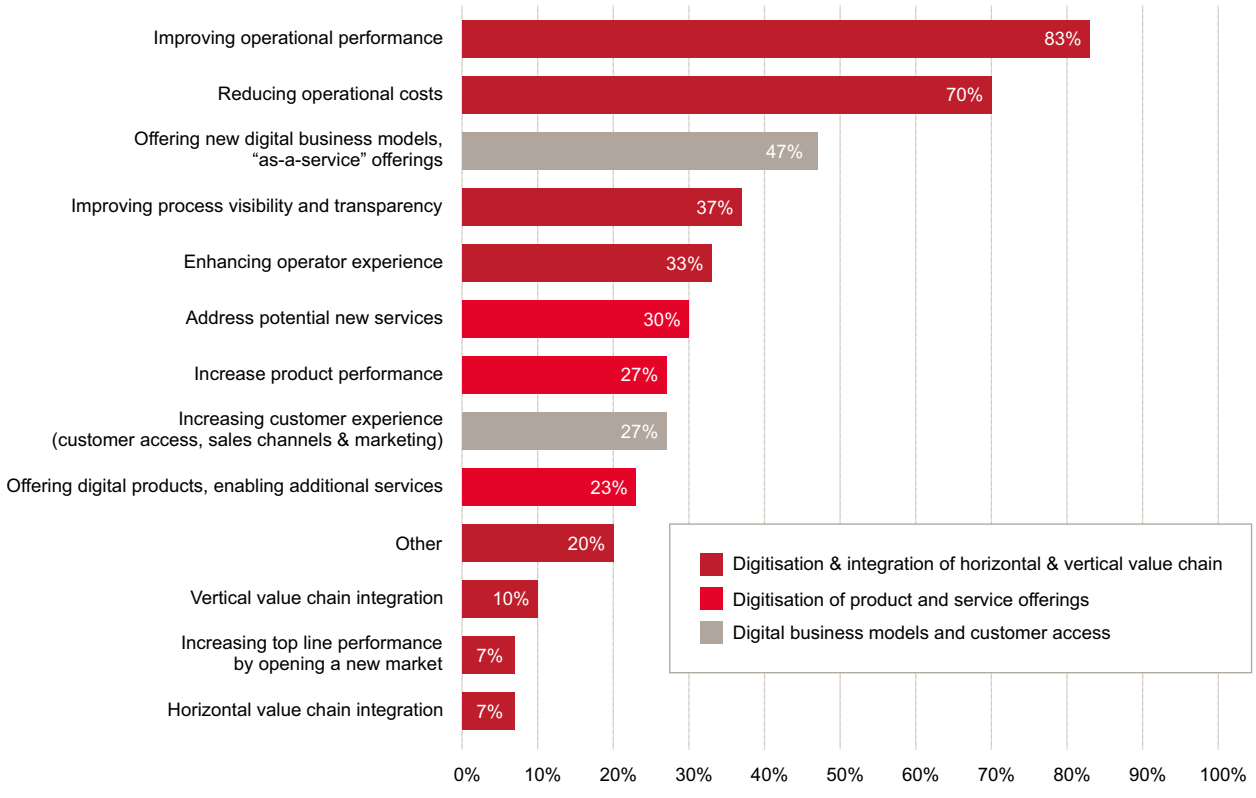
When asked about their key value proposition, 83% of our respondents stated that their solution will improve overall operational performance. 70% also confirm they will reduce operational costs. They believe these are the answers to the main concerns of their target audience.

Our previous study on the Industry 4.0 landscape in Belgium (*Reference 2*) confirms the priority of these operational objectives. As we gauged then, the Belgian industry has a strong expectation that Industry 4.0 solutions should lower costs and increase efficiency by a yearly rate of 2.5% on both dimensions.

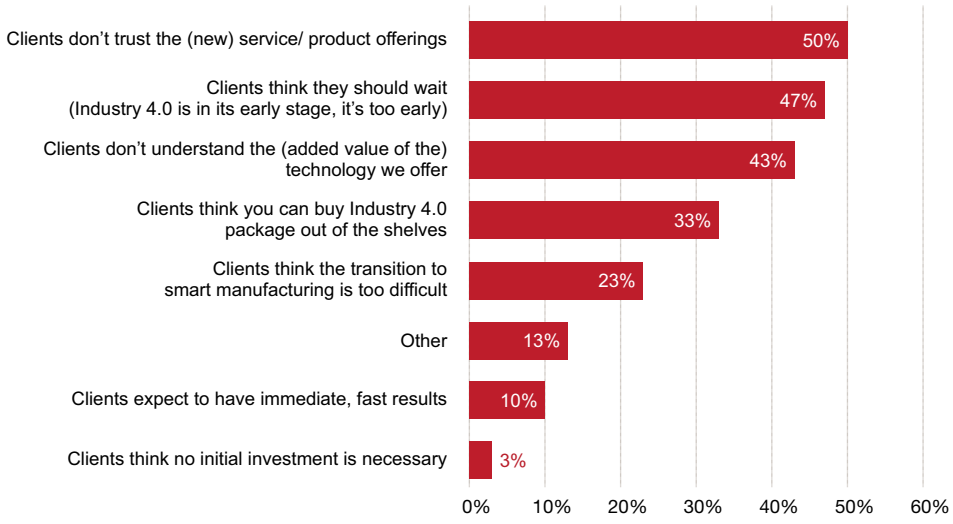
This is definitely a positive match between Industry 4.0 start-ups and Belgian manufacturing companies.

However, Industry 4.0 goes beyond improving internal processes. To become a true digital champion (*Reference 1*), setting up digital product and service offerings and strengthening customer access with new business models are just as important. Among the start-ups, 47% indicate they aim to offer new digital business models to clients, but here we observe a gap with the Belgian industry. Our previous study (*Reference 2*) revealed that digital business models and 'as-a-service' offerings are rated low when it comes to the perceived potential of digitisation and integration.

Graph 7. **What is your top selling point towards your customer, which value are you unlocking for your customer?**



Graph 8. **According to you, what are common misunderstandings (e.g. from clients) when it comes to the adoption of Industry 4.0?**

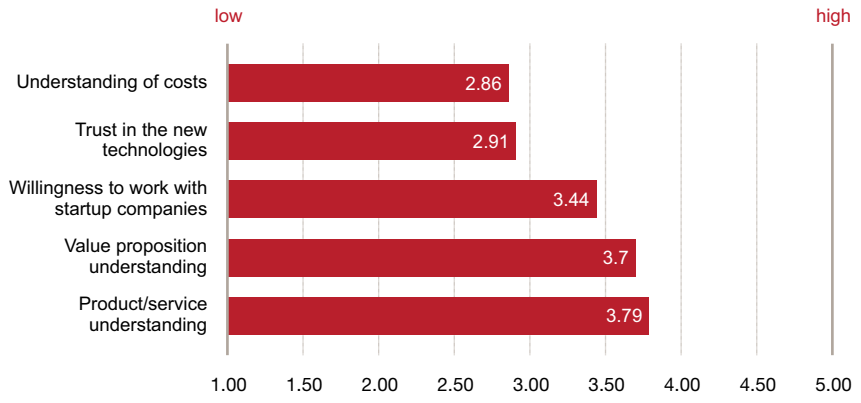


B. Industry 4.0: common misunderstandings

When asked which common misunderstandings they need to counter during client conversations, respondents indicate that many companies are still cautious in adopting Industry 4.0 for several reasons: half of respondents believe clients lack trust in new product and service offerings and 47% indicate that industries think it's too soon. Of those surveyed, 43% feel that the industry does not yet fully understand the (added value of the) technology that's offered.

However, there's also a positive sign: respondents believe that industrial companies understand that investments are required and that immediate results are unlikely.

Graph 9. **How would you evaluate industry's position towards your business?**
(on a scale of 1 – 5)



Interestingly, when asking start-ups about their own businesses, they indicate that their target audience understands the products and services they bring to the market (3.8/5) and the added value they offer (3.7/5). Usually, this depends on the condition that a demo has been given to enable the client to truly capture the solution and the underlying technology, together with the benefits they bring.

The overall scores on trust in technology (2.9) and understanding of costs (2.9) are remarkably lower, which confirms the key finding of the previous study: Belgian industrial companies see the importance of Industry 4.0, but are not yet fully ready to make the necessary investments or take the leap when it comes to technology risks.

A very positive evolution is that most participants are rarely faced with reluctance by companies to work with smaller solution providers (3.4) and that organisations are open to discussions on moving forward.

3. Entering a dynamic market

A. Increasing awareness and visibility

The overall success of a start-up doesn't rely solely on having a good service offering, but also on how that's brought to the market. All startups recognise that marketing strategy is a key enabler and recognise the need for an overall game plan to reach people and convert them to customers of the product or service that the business provides.

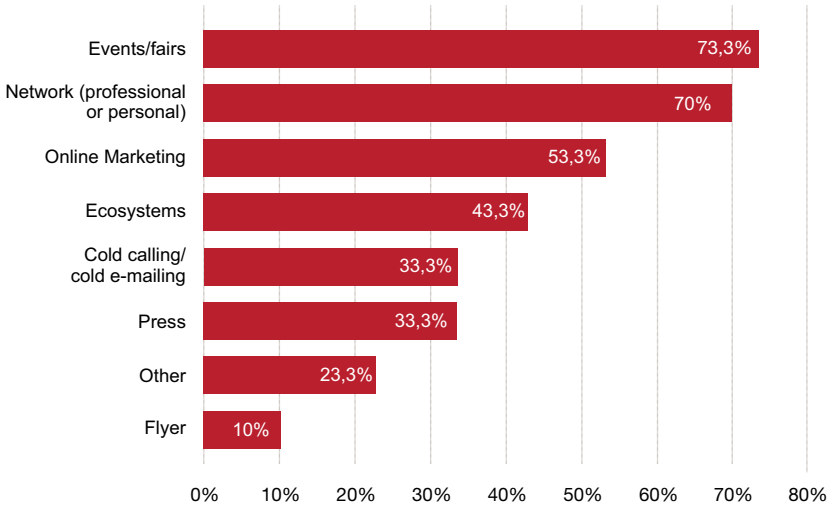
The majority of our panel (*Graph 10*) rely on events and fairs as well as personal and professional networks empowered by online marketing means (professional or personal social network platforms) to create visibility around their brand and their products/services and affirm their presence in the market. Secondary vectors are comprised of ecosystems and their built-in networks of start-ups and investors as well as communications or articles in the press.

A major objective of the interviewees is to get access to the decision makers in a company. However, in these sales discussions it's important to have sufficient 'on the ground' expertise to be able to envision the solution in place in a specific process or area.

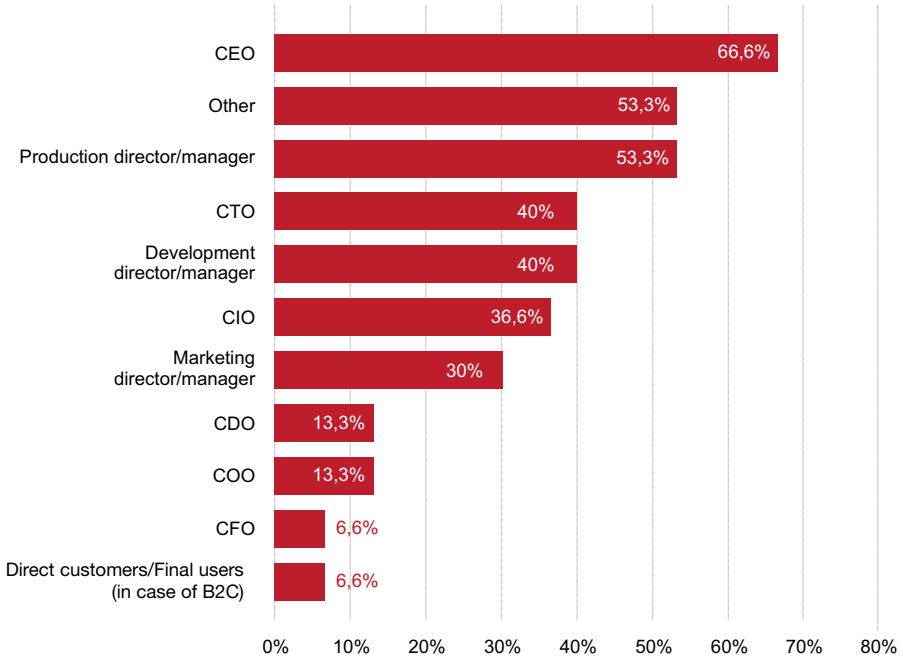
The vast majority of our respondents (*Graph 11*) aims to have first sales discussions with CEOs or other decision makers, followed by production directors, development directors and CTOs.

Depending on the size of the target client (*see chapter 1*), it's more likely they meet with a local department head rather than the CEO. However, the fact that they're getting access to different levels and functions confirms that Industry 4.0 is high on the agenda of Belgian industrial companies.

Graph 10. **How do you create visibility about your company/product/service?**



Graph 11. **Which function/role do you usually speak to?**



Most respondents feel that target clients have an average or better understanding of Industry 4.0 in general (3.5/5 – *see graph 12*). They also express that when discussing the details of their solution, they see an increased understanding of the offering (3.9/5).

This confirms that high level stories and concepts are still more difficult to grasp, whereas tangible products and solutions are better understood.

Initial conversations are generally focused on educating targets on the details of the company's core value offerings, either on the technology or the business disruption side. As these technologies and the associated solutions providers grow, we expect the client's level of understanding of the overarching themes to rise accordingly.

B. Starting small with a proof of concept has become the industry standard

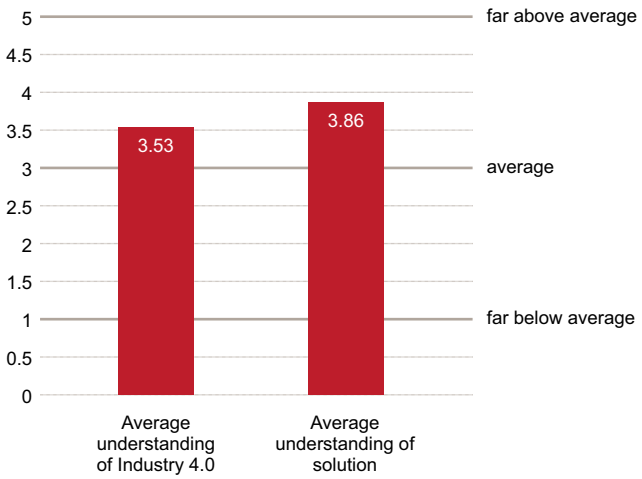
Before a company invests in a solution, a proof of concept (PoC) is usually the first step in the business relationship between a start-up and its client. Because proofs of concept can be defined in different ways, we asked our panel which definition is most relevant to them:

Of our interviewees, 77% describe PoC as the confirmation of the potential of a technology, an initial investment to convince the client of their product and generate future revenue (47%) and a requirement to assess and demonstrate the solution's feasibility (47%).

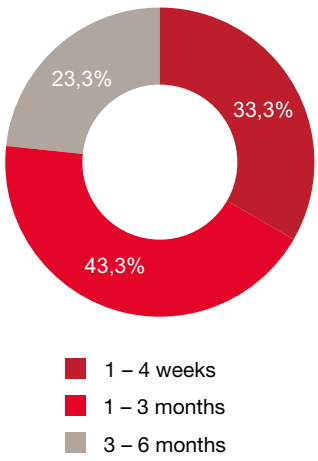
However, they don't see a PoC as a requirement in the product development phase, which means their solution is already mature enough to provide value and doesn't need funded business development. These kinds of collaboration are typically set up with a different structure like corporate venturing or consortium projects.

According to our interviewees, a typical PoC takes a few weeks to three months from agreement with the client to delivery. Our panel situates the average cost of a PoC at less than 30,000 euros, with a great deal of variation depending on the specific situations of the client and the start-up.

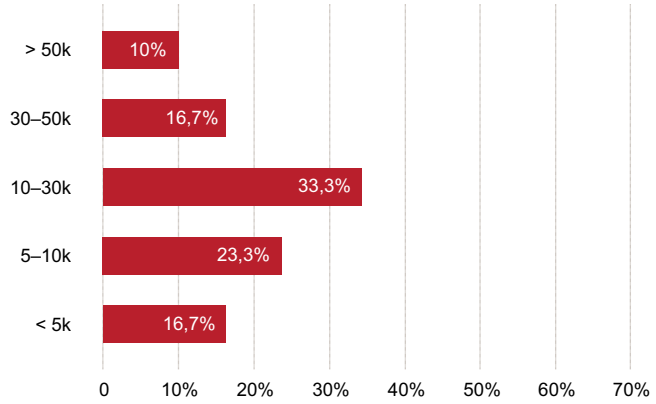
Graph 12. **Average understanding of Industry 4.0 in general vs average understanding of presented solution**



Graph 13. **What is the timeline required for running a successful Proof of Concept with your product?**

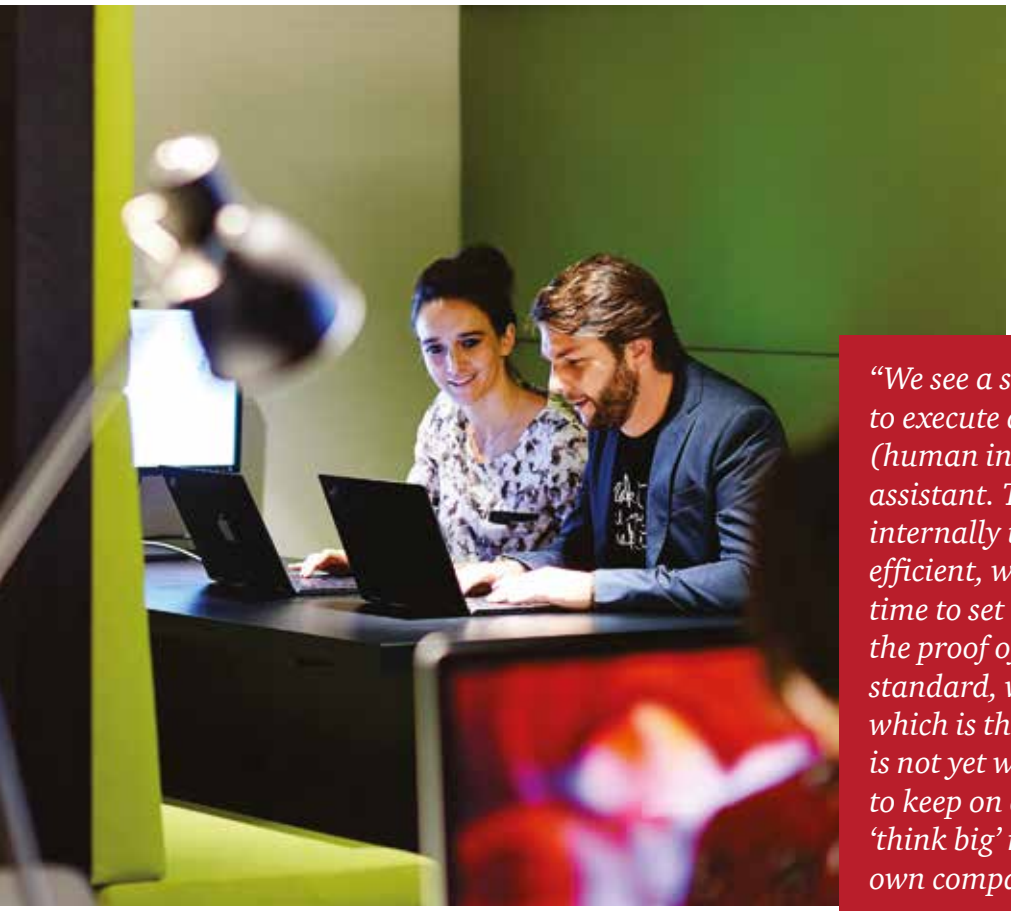


Graph 14. **What is the initial investment required for a Proof of Concept?**
(estimate in euro)



The business objectives are clear: show the client the potential value of the solution (22%), provide the client with a real-world view of the product based on an application in its environment (20%) and enable the client to determine what's possible and what is not (16%).

Thanks to their relatively low cost, short associated timeline and the fact that they enable companies to better their understanding of start-ups' solutions and the associated possibilities, a PoC is considered a very important step in building the business relationship between a company and a start-up.



"We see a strong pull from our customers to execute a proof of concept of our HIM (human interface mate), a virtual operator assistant. That's why we're committed internally to becoming more effective and efficient, which will result in a reduced lead time to set up a proof of concept. Although the proof of concept principle has become standard, we still see that the next phase, which is the actual rollout of the solution, is not yet widely accepted. We need to keep on educating our clients on the 'think big' mindset to be able to scale our own company."

Johan Smeyers, CEO Arkite

4. Scaling the business

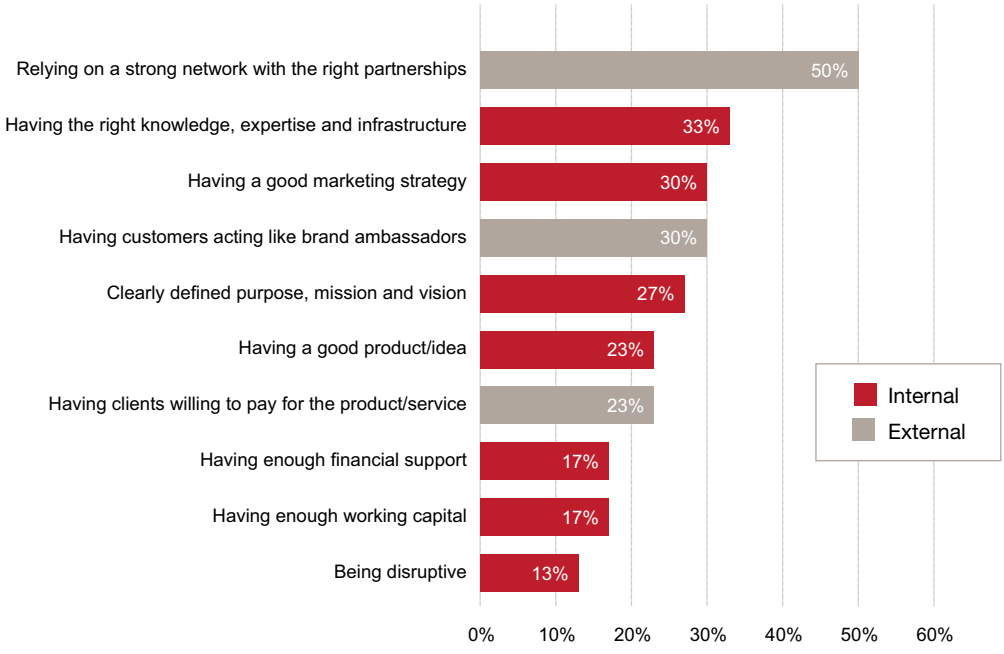
A. Key success factors for scaling up

In an environment where growth is crucial to survival, new solution providers have to rely on several factors to scale up. The figure below shows the critical success drivers as identified by our panel. From the top five highlighted by start-ups, two come from their external environment while the other determining factors are inherent to the start-up itself.

Feedback collected during the interviews points out that the majority of participants agree that the most important factor to scale up is **having a strong network and the right partnerships**. In fact, 50% insist on the importance of the network. The stronger the network, the easier it is for start-ups to rely on relevant support and increase their exposure within Belgium and abroad. Having customers act as brand ambassadors is also essential to increase credibility and scale the business.

From within the start-up, it's important to clearly define a purpose, a mission and a vision. A good marketing strategy and having the right knowledge in-house are critical to scale up, representing 30% and 33% of the feedback, respectively.

Graph 15. **Key success factors for scaling up**



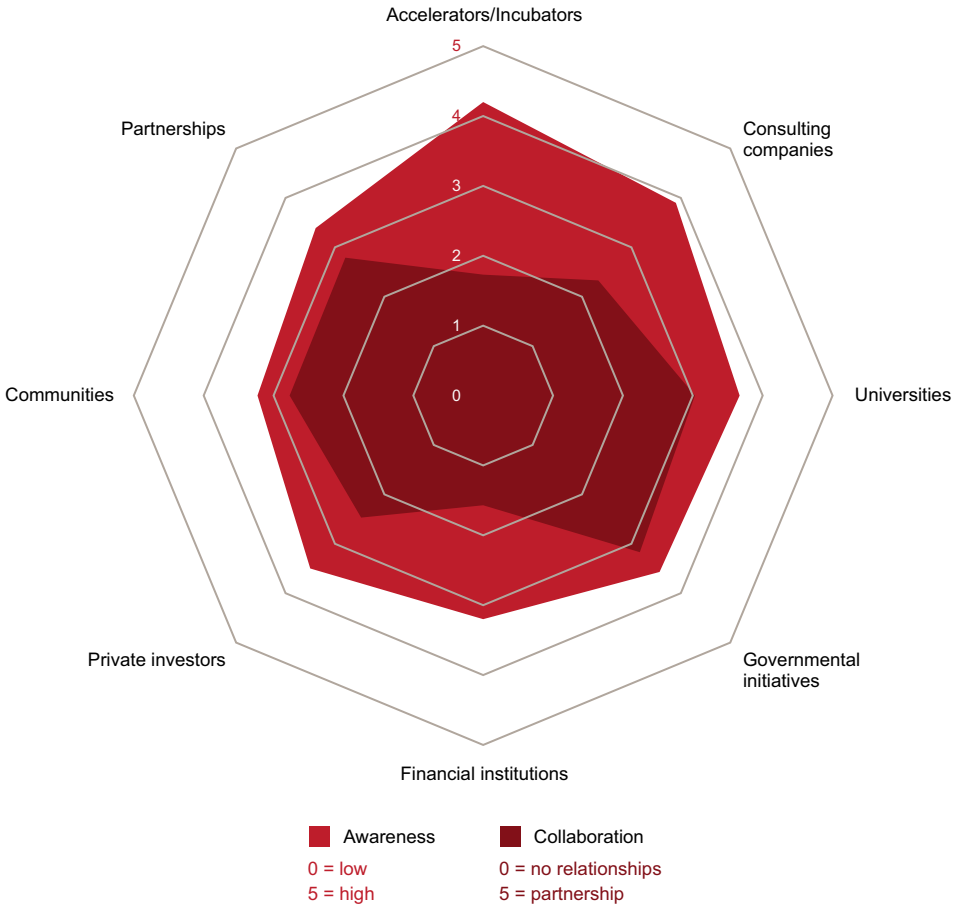
B. Awareness and expectations within the ecosystem

Different players are active within the ecosystem. The figure below describes the relationships between start-ups and organisations in the ecosystem in terms of awareness and collaboration.

More than three out of five companies we interviewed are showing high awareness of the different organisations with whom they can eventually collaborate to expand their business. Incubators remain the best-known in terms of awareness, along with universities and governmental initiatives.

However, collaboration with incubators is not as high as the awareness of them. In terms of collaboration, preferred organisations from which our respondents seek support remain universities and initiatives provided by the government, followed closely by communities and partnerships.

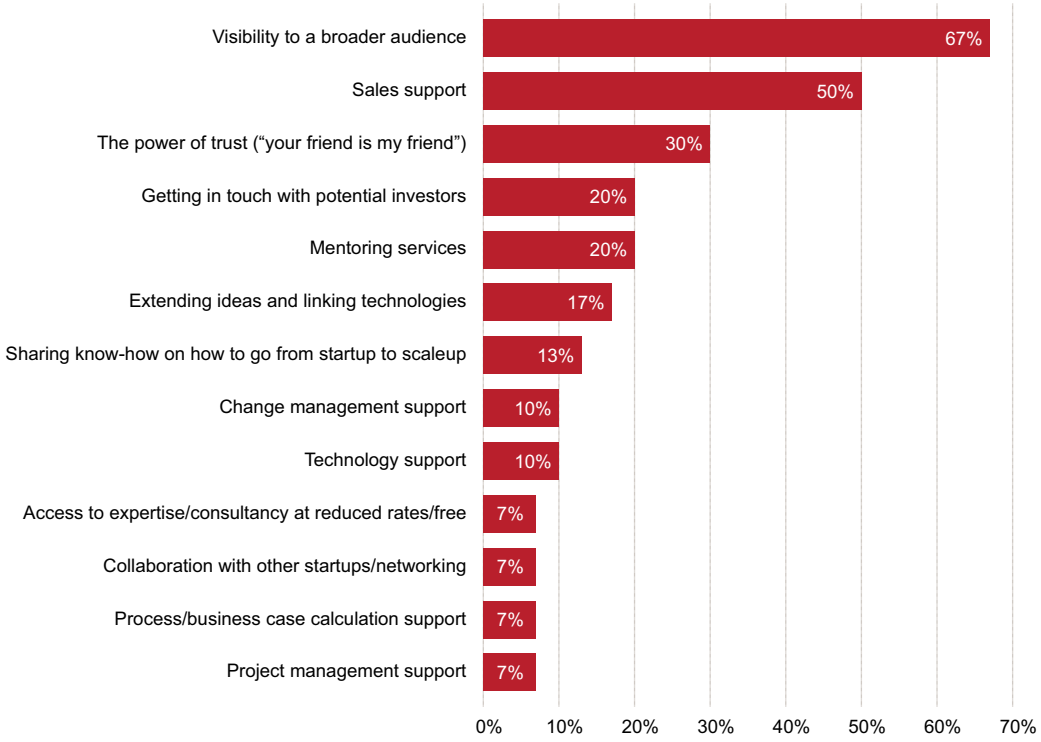
Graph 16. **How would you describe your relationships in terms of awareness and collaboration with the following organisations?**



The ecosystem can only be effective if all members reinforce each other and fulfill each other's expectations or needs. Our interviewees pointed out several expectations in terms of support. **Graph 17** presents the preferred capabilities provided by other parties. Of our audience, 67% is expecting the ecosystem and its members to offer better visibility to a broader audience, therefore enabling access to new business and new industries. Sales support is another expectation towards the ecosystem. With all their time and resources dedicated to product development and project delivery, Industry 4.0 solution providers don't have a lot of time to focus on expanding their business – lack of expertise in this field is also a factor. They will therefore welcome that capability as external support.

To summarise, all start-ups included in the survey expect the ecosystem to bring appropriate and relevant support to help cope with the challenges in growing their businesses.

Graph 17. **What are your preferred capabilities in a supporting organisation?**



C. Assessment of the ecosystem by the solution providers

The survey reveals mixed views on the effectiveness of the Belgian ecosystem. A majority of the start-ups we interviewed noted that many improvements have been made in the last few years to provide access to external support and to help start-ups. Feedback shows that 83% feel that available support is moderately effective or even extremely effective.

While there's significant focus on helping start-ups, these companies would like to see the current ecosystem focus more on scale-ups. Ecosystems need further optimisation and to be more action-oriented to provide a fertile base for start-ups to grow their businesses. Four out of five start-ups expressed they'd like to see the ecosystem bring in more relevant industrial expertise and insights.

It appears that Belgium also has inherent challenges to tackle within the country, due to the language barrier and the geographical dispersion of local initiatives. There are certainly ideas and examples to take from other European countries, as almost four out of five Belgian start-ups have the impression that the ecosystem could be more effective compared to neighbouring countries.

Graph 18. **What is your view on the effectiveness of the current startup ecosystem in Belgium?**

"We see a positive evolution in Belgium over the last few years when it comes to starting up your own company. When you find your passion and decide to go for it, the climate in Belgium is quite supportive: we have access to talent that wants to work for smaller companies, we can connect with state-of-the-art research and technology and we have access to funding, even if it's is lower compared to other countries. Of course, the crucial lever remains your own entrepreneurial mindset, and sometimes the willingness to break the rules."

Jonathan Berte, CEO Robovision

5. Taking the ecosystem to the next level

We concluded that start-ups are mainly driven by a technology push and that significant effort is put into translating a solution or technology into business value. The main focus is on operational performance improvement, as that's what industrial companies are currently looking for in Industry 4.0 programmes. Conducting a PoC is the preferred way of overcoming the initial uncertainty and creating more insight into the solution and its applicability to a specific situation. The Belgian ecosystem is providing sufficient support to start-ups and generates those initial collaborations, however to truly scale up, more needs to be done.

Based on our interviews with start-ups and the conversations we have with our industrial clients, we've identified three main levers to take the Industry 4.0 ecosystem to the next level:

1. From one-time PoC to full rollout

With many uncertainties and a rapidly evolving technology landscape, industrial companies need to continuously increase their knowledge and awareness of the available technology. This is the only way to develop an overall strategy with sound information and enrich it with latest insights. While running smaller PoCs is already widely accepted, **the actual rollout on a larger scale often doesn't follow**. To be truly successful, industrial companies need to make sure every PoC is connected to a higher purpose and linked to their overall strategy, which will make the rollout business case much clearer.

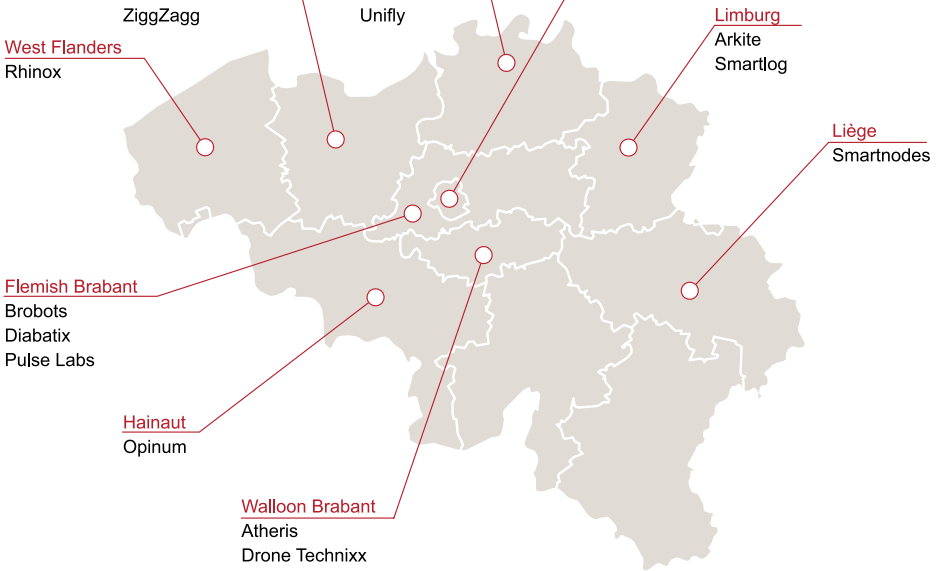
2. Strengthening relations within the ecosystem

Industrial companies have traditionally relied on a strong network of external capability providers. To remain competitive, companies need to intensify their existing relations and actively extend their networks. This involves not only a selection of the right partners with the right capabilities, but also a high degree of trust between several parties, e.g. revisiting intellectual property and how to collaborate in the ecosystem.

3. From simply challenging the status quo to truly designing a new future

As our study shows, the most common issue is that industry doesn't trust new technologies and doesn't see the added value of specific solutions. As a consequence, most of the energy is focused on finding valuable application areas for new technology solutions and building up trust. In this thought process, most industrial companies start from the existing 'known' processes. This results in an incremental improvement by simply challenging the status quo, yet staying within existing boundaries won't extract full potential. Organisations need to embrace change and design and implement a new process, inspired by firm business understanding and knowledge of available new technology solutions. Current limitations reside largely in the human factor, which will ultimately determine the pace of Industry 4.0 evolution.

6. An overview of the participants



This report would not have been possible without the information and insights provided by our respondents. We'd like to thank the following companies that took the time for our interview.

	Start-up	Description	Website
1	Aloxy	Aloxy offers a modular industrial Internet of Things (IoT) platform for the process and chemical industries. Its goal is to improve safety and efficiency, to automate processes and to deliver actionable insights in industrial operations. Aloxy's initial product line offers a solution for manual valve position indication and maintenance progress monitoring.	http://www.aloxy.io/
2	Arkite	Arkite's Human Interface Mate (HIM) is the ultimate virtual guardian angel. HIM looks over the shoulder of the manufacturing operator and warns as soon as a faulty operation is in progress and navigating towards standardised work. HIM works contactless based on 3D sensor technology with smart software.	http://www.arkite.be/
3	Atheris	Atheris Services provides custom IoT solutions. From technology integration and hardware design to data treatment and user application, it builds dedicated solutions for specific problems, especially related to computer vision and geolocation.	https://atheris.eu/
4	Azumuta	Azumuta is a modular Industry 4.0 platform for manufacturers aiming to improve their production efficiency, flexibility and overall quality. Several manufacturers are using Azumuta to centralise and manage rapidly changing work instructions. Continuous improvement is guaranteed by issue tracking and improvement boards. A checklist and audit trial module together with a competence matrix provides the right learning tools. All this in a user friendly manner on paper, screen or tablet.	https://www.azumuta.com/
5	Bagaar	Bagaar is a smart product agency. They help companies with the ideation, creation and development of IoT innovations. In other words they help make your products or services smart.	https://www.bagaar.be/
6	Brobots	Brobots specialises in robotic process automation (RPA) services. The robots are software applications that mimic the actions of humans using computer systems to help automate business processes and therefore save on time and cost while improving quality.	https://www.brobots.be/
7	Diabatix	Diabatix is an engineering company that successfully strives to be an expert guide through the design process of your cooling elements. Whether it concerns liquid or air-cooled heat sinks, it can customise a solution that meets your specific needs. Its highly specialised engineering team is supported by in-house developed artificial intelligence technology. This combined process using human expertise and unmatched computing power results in advanced products that ingeniously redefine the very essence of thermal design.	www.diabatix.com

	Start-up	Description	Website
8	Dimension4 BallistiX	Dimension4 enables high-volume, customised 3D printing for end-consumer products and spare parts. BallistiX.digital helps innovators discover the potential of new ideas and emerging technology by using a lean approach to digital product development and management.	http://www.dimension4.xyz/ https://www.ballistix.digital/
9	Drone Technixx	Drone TechniXX specialises in aerial imaging using civilian drones equipped with specific sensors. It delivers added value services starting from visual and/or thermographic industrial inspection and aerial geo-referenced 2D and 3D modeling applied to specific customer needs such as ground and surface surveys, buildings and civil engineering, artwork measuring and mapping.	www.dronetechnixx.com/
10	ECC.AI	ECC.AI unleashes the real power of your industrial IoT data. It has developed advanced self-learning algorithms to help optimise your closed loop processes to a historically high efficiency level.	https://ecc.ai/
11	Inimco	Inimco provides innovative, industrial IoT-based solutions for global machine and equipment builders that want to connect industrial assets with customers and services to support their business model shift and manufacturing companies that want to gain real-time visibility into their global production processes and maximise operational efficiency.	www.inimco.com/
12	Iristick	Iristick designs, develops and manufactures state-of-the-art smartglasses for industrial applications. All Iristick smartglasses are certified safety glasses enabling live streaming technology for hands-free remote assistance, you-see-what-I-see applications and procedural instruction software.	https://iristick.com/
13	Opinum	Opinum developed Opisense, the ultimate IoT and data analytics platform to make quality data available to all your data driven processes and easily generate various types of reports, dashboards and alerts.	https://www.opinum.com/
14	Otrema	Otrema has developed the world's smartest radiator valve of all time, powered by AI. Otrema brings simplicity, security and comfort while helping you save up to 40% on your heating bill.	http://www.otrema.eu/
15	Proceedix	Proceedix is a software as a service (SaaS)-based central platform to manage enterprise procedures, work instructions and inspections in an easy way, while making the remote execution paperless and mobile.	https://proceedix.com/

	Start-up	Description	Website
16	Pulse Labs	The Pulse app and smart sensor offers a complete remote monitoring and alerting solution for industrial machinery to empower maintenance and production teams at a lower cost, with better insights and less hassle from bespoke systems. With plug-and-play installation for motors, pumps and other common equipment, our solution listens for vibration, temperature and humidity changes, transmitting live data to a central store for abnormality detection. Users can access a range of simple interfaces with real-time or historic charts, configurable alerts and AI driven failure predictions.	https://www.pulselabs.ai/
17	Rhinox	Rhinox is all about creating virtual training. Operators on an assembly line are faced with a quickly changing set of instructions and Rhinox uses VR to train those operators as if it were in real life.	https://www.rhinox.training/
18	Ridix	Ridix offers RFID solutions with a wide range of capabilities for automated business processes. By default, the design of an RFID solution is quite simple: tags, readers and data processing software. Ridix goes one step further and focuses on developing complete solutions, tailored to your business, your wishes and your needs.	www.ridix.be
19	Robovision	Robovision provides the tools necessary to enable AI for your business. By the use of deep learning techniques, it can automatically derive actionable insights from your data. In other words, it transforms your data into a valuable asset.	https://robovision.be/
20	Rombit	Rombit improves planning efficiency, worker safety and site security for both governments and for the port sector. It delivers dashboarding solutions that closely integrate with buy-and-build IoT devices and with the proprietary RomwareTM brand.	https://rombit.be/
21	Supply Stack	Supply Stack helps modern shippers and logistics service providers improve their bottom line with real-time transport management. It combines a cutting-edge visibility solution with a tier one transport management system, all on a single cloud platform.	https://www.supplystack.com/
22	Smartlog	Smartlog is known as a leader in the field of HVAC prognostics and lab and pharma applications. Operating as an industrial IoT provider, Smartlog launched AKURU, a general platform that enables the digital transformation of unconnected assets.	https://smartlog.com/

	Start-up	Description	Website
23	Smartnodes	Smartnodes puts high technology at the service of human wellbeing, quality of life and cities' sustainable development. It provides solutions in the fields of smart lighting, mobility, security, safety and environment.	https://www.smartnodes.be/
24	The Ledger	The Ledger is a service and consultancy company with expertise in unlocking new business potential with Blockchain technology. They provide knowledge about Blockchain to build real life applications and create and validate business cases.	https://theledger.be/
25	Twikit	Twikit is a software company specialized in mass customization and digital manufacturing. Our proprietary Twikbot cloud platform is an end-to end- solution connecting the customer experience – such as a 3D interactive model of a product in a mobile browser – to digital manufacturing like 3D printing, CNC and lasercutting to create highly individualized products at scale.	https://www.twikit.com/
26	Unifly	Unifly has created a platform that allows authorities to see and manage the drones in their airspace and drone pilots can use it to see where they're allowed to fly. This way, Unifly helps keep the airspace safe.	https://www.unifly.aero/
27	Viu More	Viu More offers digital transformation strategy and development services on an open, collaborative platform. It makes the most of AR, AI, IoT and recognition technologies to bring contextual information to the user in the field to support proper job execution.	https://viumore.com/
28	Yazzoom	Yazzoom leverages its expertise in advanced data analytics and industrial process control to deliver immediate value to its customers by improving company processes. Yazzoom has experts in signal processing, artificial intelligence, computer modelling, software engineering, data mining and advanced process control.	https://www.yazzoom.com/
29	Zensor	Zensor helps owners of wind turbines, bridges, tunnels and production sites make the lives of their assets safer, more efficient and longer. It does this by combining sensing with advanced data analytics, turning raw data into insights and calls to action.	https://www.zensor.be/
30	ZiggZagg	ZiggZagg stands for 3D printing of high quality and fast delivery. Every product they offer is produced in-house. Whether it's a prototype, architectural model, small series production, 3D service, scanning and reverse engineering or welding cuttings and CNC milling, ZiggZagg guarantees 100% protection of your product.	www.ziggzagg.be/

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