



Transforming to Digital Factory

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Bart Verlinden

"The right information at the right time makes everything more efficient."

With the Make The Future programme, Agoria and Sirris guide businesses step by step towards Factory of the Future status. This intensive journey focuses on seven transformations that are essential for this development. In this interview series, we explain each transformation with the help of an expert. This week, Bart Verlinden discusses the 'Digital Factory' transformation.

Bart, what does the 'Digital Factory' transformation involve??

Bart Verlinden: "**Digital Factory** helps businesses make the leap to Industry 4.0. This means that **everything in a production environment is interlinked**. It may be machines, but also software or other applications that are linked and from which data are collected and exchanged. The data collected are used intelligently to make processes more productive, more cost-efficient, more sustainable, faster and more flexible. The timescale for this vision is around 2032.

Industry 4.0 is the vision. The 'Smart Factory' and 'Digital Factory' transformations take a deeper look at how, as a business, you can transform towards Industry 4.0. I myself focus mainly on Digital Factory. This concentrates specifically on research into how we can **meaningfully use digital technology throughout the process**, from order to shipment. Together we identify all the steps and see where digitalisation can bring added value."

How is 'Digital Factory' reflected in practice?

1. ?? "We take a look at **the machine park**. Manufacturing companies can only improve if, in addition to the status of a machine, they also have a clear idea of the products made on it. So we connect these machines with a network and collect data via sensors. If we then analyse these data, we can monitor more easily whether everything is still on track and whether the expected quality is delivered. This makes quality control and planning easier.
2. Another example is **digital work instructions**. These days, every customer wants a unique product. It is no longer the case that as an operator, you make the same thing over a long period. In assembly environments especially, you have to deal with orders that have specific options. In the past, these instructions came in on paper. Now you can digitalise them using tablets or computer monitors at the work stations where the operator can see, step by step, what he/she has to do and obtain any additional information. So they get the right information at the right time, making the work as efficient as possible. And if a quality problem arises, it can be entered immediately. All issues are logged digitally. This keeps errors to a minimum and speeds up processes.
3. What is equally of paramount importance is **interaction with customers**. In the past, a customer sent an email or orders were placed by telephone. Information was often missing. Today we can work with configurators, like those we are familiar with when buying a car, for instance. The customer can use them to design a product digitally, see what it will look like and then press 'order'. This kind of approach is becoming increasingly common in the manufacturing industry and means that the whole interaction with the customer is digitalised: the entire process from quotes to drawing up the schedule, the production itself and even the production follow-up. This streamlines quote and production processes.

It is important to note that you shouldn't always digitalise for the sake of digitalising, but to resolve a problem, such as a quality problem, wasted time or errors due to manual work. There is no point in digitalising for the sake of digitalising. It may a quality defect, something that otherwise takes too much time, or because manual work leads to too many mistakes."



"The most important thing is your digital transformation has to resolve a problem. You digitalise everything even change but that works. do you good. have to from something that you want to improve

Bart Verlinden, Manager 4.0 Made Real at Sirris

What are the advantages of 'Digital Factory'?

"Manufacturing companies that digitalise see improvements in their most important KPIs: **costs, quality, lead time, delivery reliability, flexibility and these days, sustainability too**. If we want to digitalise, it's best to do so along one of these axes. The big advantage with digitalisation lies mainly with **avoiding manual and duplicated work**. At companies that are not yet digitalised, data still often have to be entered into a system by hand and then re-typed into another system. Not only is this time consuming, but it also increases the risk of errors.

So the big advantage is that you can work **faster and more efficiently**, so that the right information is made available at the right time. For instance, you do not have to worry about an old version of work instructions. If you work digitally, you can be certain that everyone has the latest instructions straight away. But it is crucial not to digitalise chaos. First of all, processes have to be simplified and optimised. Digital transformation must focus on impactful improvement."

What are the biggest challenges with digitalising to become a Factory Of The Future?

"It's certainly not easy. Three challenges often stand in the way:

1. **Structure is usually the biggest obstacle.** We often go to companies where things are pretty chaotic, because the processes have grown up over time. This is not a criticism. It's an observation. Companies are just accustomed to working in a particular way and if you digitalise them just like that, the situation becomes very complex. So first you have to take a step back, identify and simplify the processes before making them digital. Really you have to design a different way of working for this.
2. Secondly, of course an **investment in infrastructure** is also necessary to connect your machines with a network. It is quite a challenge to get all operations technology (OT) – machines, robots and all the software packages you use (IT) – to talk to one another so that they can exchange data.?
3. And then the third challenge is the question of **cybersecurity**. A connected factory needs to be well protected. Don't leave any doors open for people who intended to misuse them."

How can Make The Future help?

"Leading businesses already show that these challenges can be resolved. Best practices are available for those that want them, standards that you can follow, methodologies and frameworks that can be applied. **So you're not sailing blindly into new waters.** With clear methodologies, best practices and support, Make The Future can help manufacturing companies avoid these pitfalls and **make their digital transformation a success.**

Read about the other transformations of the Make The Future programme:

[Make the Future: Your Pathway to a Factory of the Future >](#)

[Transformation to Eco Factory >](#)

[The Integrated Engineering Transformation >](#)

[Transformation to Advanced Manufacturing >](#)

Ready to take the step towards becoming a Factory of the Future?

Make an appointment, without any obligation, for an initial analysis of your business. Find out how the "Make the Future" programme from Sirris and Agoria can help you transform your manufacturing company into a sustainable and innovative market leader.

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[Contact our expert Bart Verlinden](#)

Authors



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