Empowering your digital factory journey

Insights and expert advice from the EMEA Digital Factory Virtual Summit

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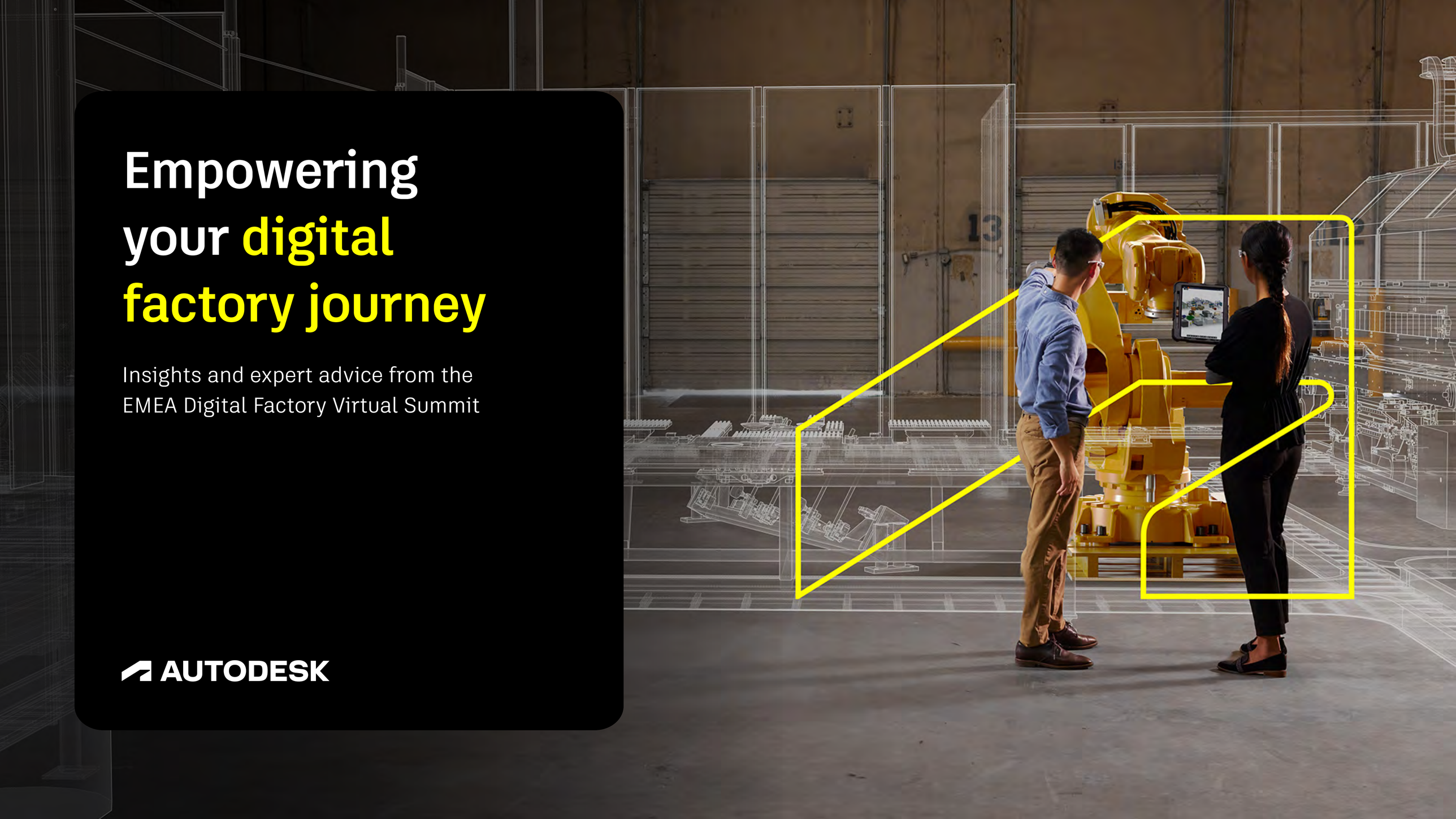

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Introducing our experts

This e-book brings together the core insights and expert perspectives shared during the EMEA Digital Factory Virtual Summit. It provides a concise, end-to-end view of the digital factory lifecycle and the technologies shaping modern manufacturing. From planning and design to building and operating, the following chapters explore how digital workflows, connected data, and data-driven processes accelerate throughput, increase agility, and support more sustainable operations.

Asif Moghal

Director of Market & Industry Development, Autodesk

Asif advises renowned customers in the design and manufacturing sector on their digital transformation.

Demir Ali

Senior Solution Engineer, Autodesk

Demir has dedicated his career to supporting the design and manufacturing industry with its software and hardware needs.

Chris Palmer

Senior Technical Solutions Executive Construction, Autodesk

Chris helps customers uncover their business challenges, mapping Autodesk solutions to help them achieve their goals.

Jason Davies

Senior Account Executive, Autodesk

Jason has been leading digital transformation initiatives in manufacturing, helping enterprises digitalize production.

Jamie Iskander

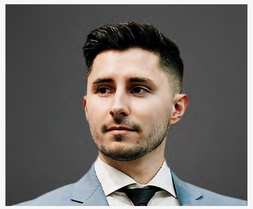
Product Specialist for Autodesk Tandem, Autodesk

Jamie provides digital twin expertise and in-depth product knowledge to support digital transformation across EMEA.

Rohit Auluck

Global Lead Mobility, Transportation and Digital Factory Strategy, Autodesk

Rohit leads Autodesk's go-to-market strategy for digital factory, having held multiple roles within the manufacturing industry.



Dawid Baranik

Simulation Expert, Nextomation

Dawid develops simulations of industrial processes, helping clients make difficult decisions using data-driven insights.

Tim Pritchett

Account Executive AECO/MFG, Autodesk

Tim helps customers accelerate their digital transformation journeys by connecting design, engineering, and operations.

Donny Wong

Digital Factory Ambassador, Autodesk

Donny leads initiatives in simulation, digital twins, and shop floor optimization to accelerate industry transformation.

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Envisioning the future factory lifecycle

At the EMEA Digital Factory Virtual Summit, Autodesk brought together subject-matter specialists to share their individual expertise, strategic advice, and real-world examples from their digital factory experience. In this e-book, we've gathered the most inspiring and actionable insights from the event.

All session recordings are available here.

What is a digital factory?

At a digital factory, data is gathered and connected via digital technology across the four lifecycle phases: Plan, Design, Build, and Operate. When the experts were asked what the term "digital factory" means to them, they provided a variety of perspectives, highlighting the complexity of the digital factory.

Focus on integration and data:

"The digital factory represents a fully integrated environment, where virtual models, data, and real-world operation come together and support smarter decisions."

Dawid Baranik
Simulation Expert, Nextomation

Underscoring data flow and lifecycle:

"A digital factory connects digital workflows and data across different project stages and teams, increasing the quality of data feeding into the operation phase. Everything is performed in a clean, data-centric way."

Chris Palmer
Senior Technical Solutions Executive Construction, Autodesk

Emphasis on breaking silos:

"You have to be intentional about removing the barriers. The digital factory is about ensuring that you're taking advantage of the prior part of each process."

Demir Ali
Senior Solution Engineer, Autodesk

Highlighting discovery and empowerment:

"'Digital factory' means taking hidden pieces of data and valuable insights from people who typically don't get asked, and building these insights into the decision-making of the company."

Jason Davies
Senior Account Executive, Autodesk

The four lifecycle phases of the digital factory

1 Plan

The Plan phase establishes the strategic foundation by digitally assessing site and factory feasibility, capturing the as-is state, and modeling future scenarios to align factory layout and capabilities with business goals.

2 Design

The Design phase transforms strategic plans into detailed, collaborative models by integrating architectural, mechanical, and production systems using digital tools to optimize layout, detect clashes, and simulate workflows.

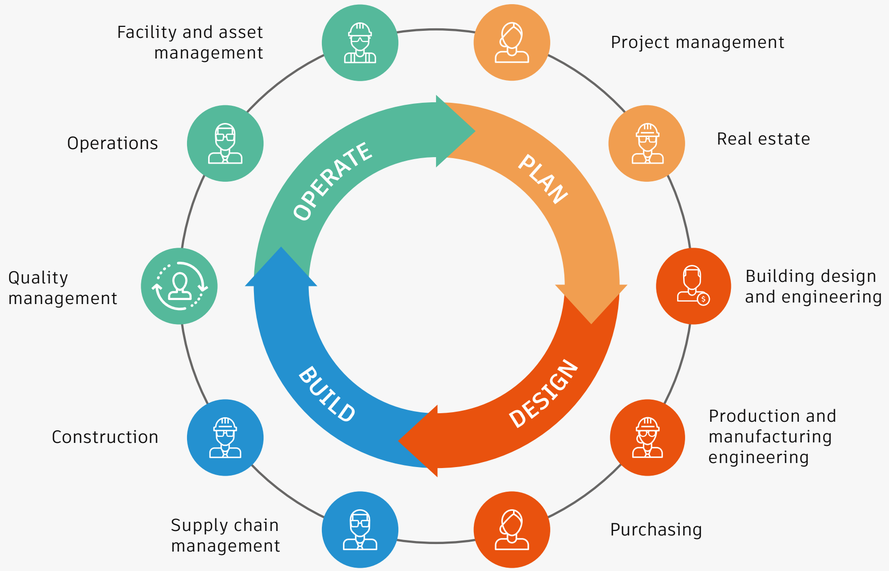
3 Build

The Build phase focuses on executing construction and commissioning efficiently by leveraging digital capabilities such as coordination, issue tracking, and handover to ensure minimal disruption and maximum quality.

4 Operate

The Operate phase focuses on managing and optimizing production and facility performance through real-time monitoring, predictive analytics, and data-driven insights to enhance efficiency and reduce downtime.

Connecting stakeholders across the lifecycle



The digital factory encompasses the entire factory lifecycle and connects all respective stakeholders.

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Current state of the design and manufacturing landscape

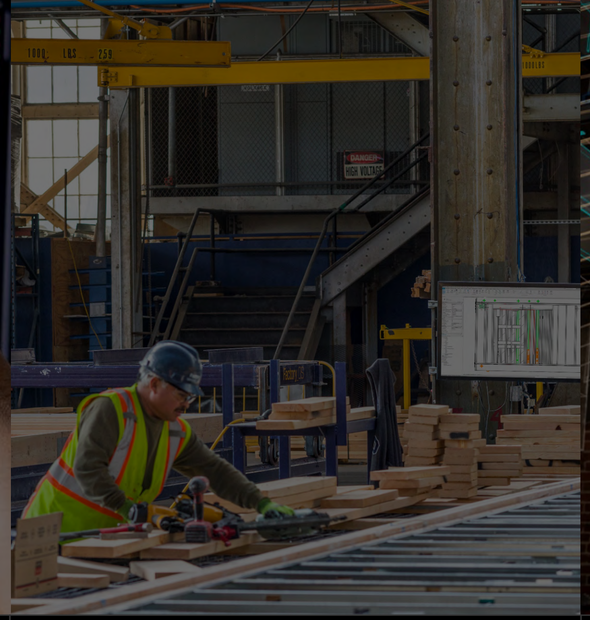
Macroeconomic volatility is disrupting supply chains. Increasing regulations and compliance, especially around ESG and sustainability, are raising the bar. New digital technologies such as AI are constantly emerging and changing the playing field. Production cycles are dramatically shortened. Finally, there's a talent shortage of the right people to address all these challenges.

Watch Asif Moghal present the current state here.

Answering today's challenges with the digital factory

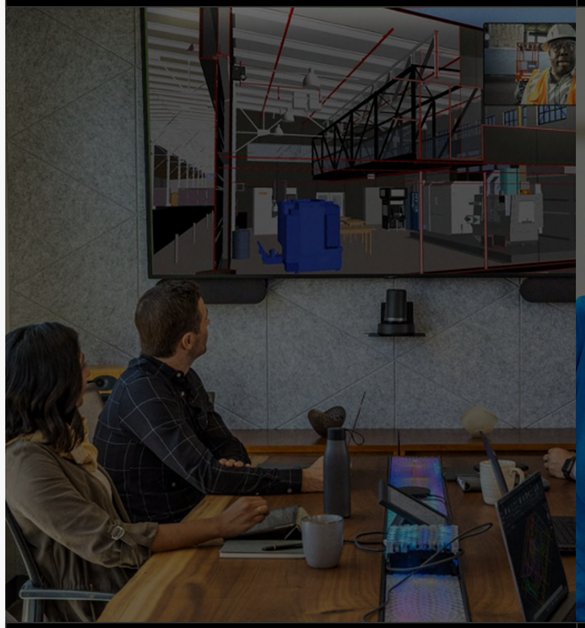
Digitalization is the key to success in today's design and manufacturing landscape. The digital factory offers opportunities to approach current demands and challenges. First movers are rewarded with a competitive edge.

Macroeconomic volatility



Supply chain disruption

Regulations, compliance & ESG



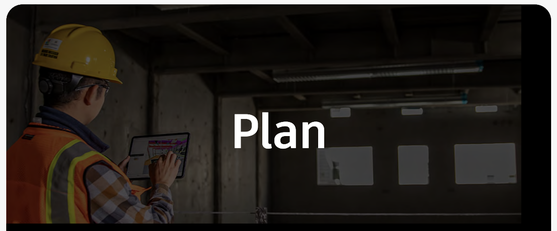
Digital technologies

Talent

AI

The digital factory's advantages by phase

Explore each phase's benefits, complemented by insights from our experts



- Increase flexibility
- Improve decision-making
- Improve time to market

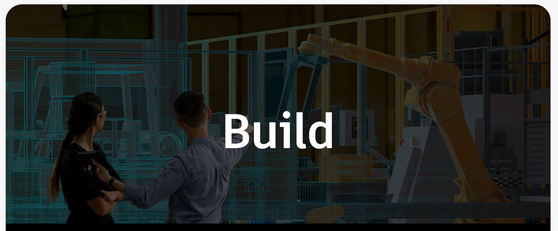
"This company has 20 facilities around the globe. But it doesn't have an accurate representation of anything. It doesn't have a playbook for the type of facilities it was building. This highlights the importance of the discovery process and documentation, and breaking everything down into bite-sized chunks."

Demir Ali
Senior Solution Engineer, Autodesk

- Optimize design
- Improve collaboration
- Reduce errors and rework

"Simulation is the first step to not walk in a fog, but to make clear decisions. If the process is simple, we don't need to deep dive into complex processes and simulate everything. We can simulate black boxes with some kind of flow, and check if the desired improvement is possible."

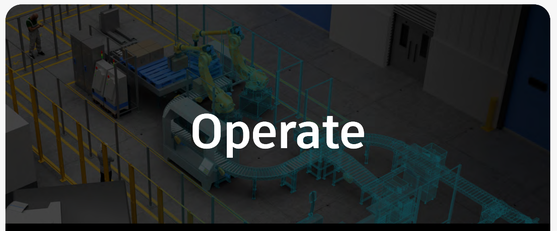
Dawid Baranik
Simulation Expert, Nextomation



- Improve data exchange
- Reduce defects at handover
- Improve resource planning

"It always comes down to starting with the end in mind. What are the data outputs that I want to get at the very end of this process to operate efficiently? That's the first step. Define exactly what you want to receive."

Chris Palmer
Senior Technical Solutions Executive
Construction, Autodesk



- Increase throughput
- Reduce defects
- Reduce resources

"Digitalize your processes to gain real-time visibility. This first step is going to unlock so much potential as you move forward and as the industry moves towards AI. Don't let future scenarios prevent you from making improvements today, so that you can take advantage of them in the future."

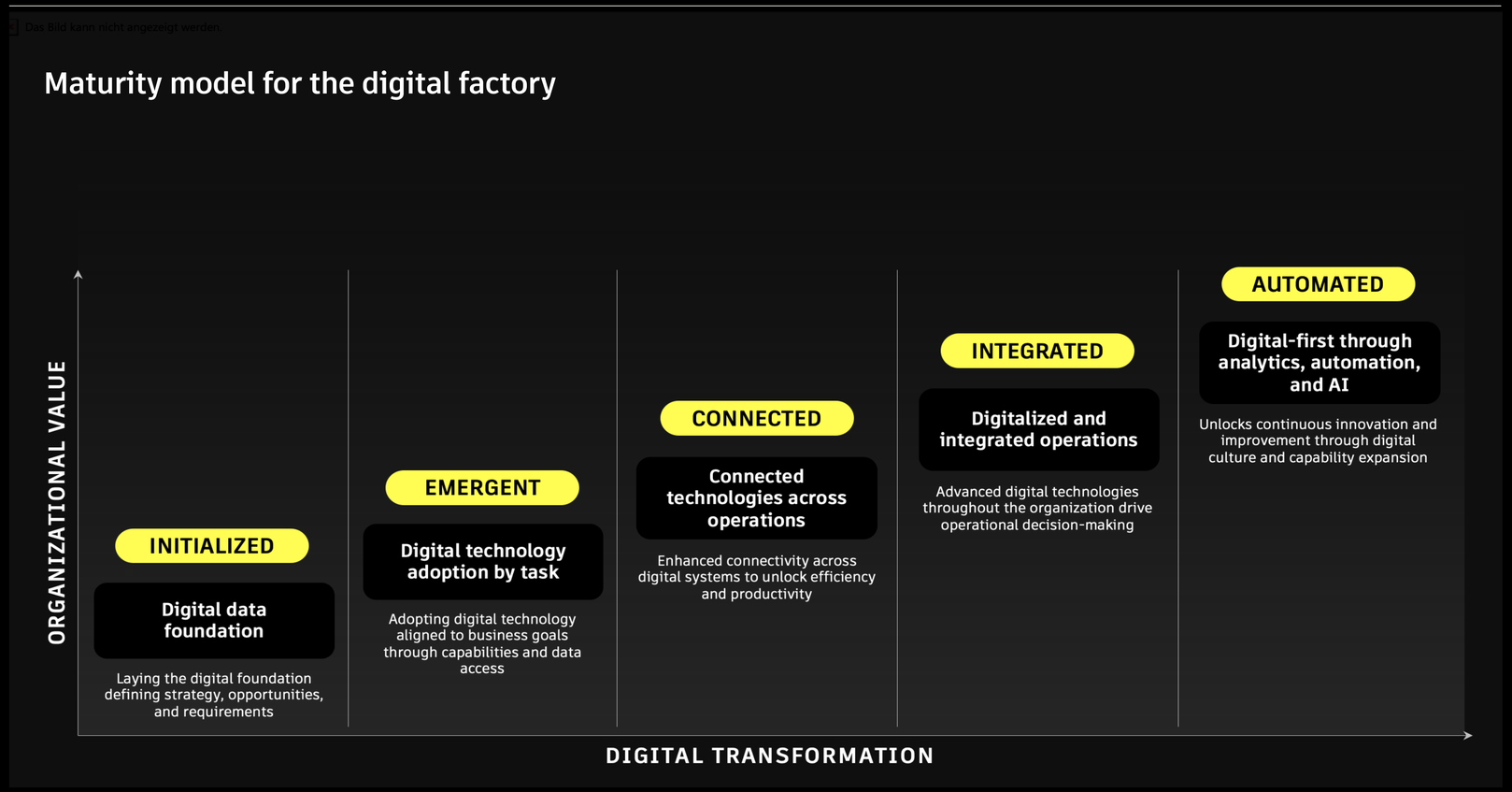
Jason Davies
Senior Account Executive, Autodesk

The main roadblocks

Talking to their customers, the experts found some common themes when inquiring about the main problems standing in the way of digitalization. Find the toughest obstacles in this chapter.

1. Digital factory maturity

Most companies employing digital methods haven't progressed beyond conceptual visualization. They remain at the stage of digital representation and mockups, putting them in the "Emergent" category on the digital factory maturity scale. On the positive side: There's still considerable room for improvement and a significant competitive edge to be gained.



2. Insufficient data foundation

Reliable data and connected processes are the first steps on the way to realizing AI's potential. However, most manufacturers don't have the necessary data foundation yet. Inconsistent data levels across organizations along the supply chain prevent them from connecting their processes. The inconsistency can stem from different data formats and standards, varying levels of data granularity, lack of standardization, or system incompatibilities.

4. Factories' current state is a question mark

To measure improvement in digitalization, companies need a baseline. Yet frequently, no accurate representation of existing operations is available. This also makes it more difficult to build a compelling business case for digitalization measures with C-level executives.

3. Data silos

Most data available is still stored in siloed systems. Standardization and data architecture need to be improved to link these disconnected systems. As of now, these silos prevent data from being usable for data-driven decision-making.

> **All these different systems have to talk to one another, and often that is the challenge. It's the way that the systems communicate with each other and the flow of the information.**
>
> **Chris Palmer**, Senior Technical Solutions Executive Construction, Autodesk

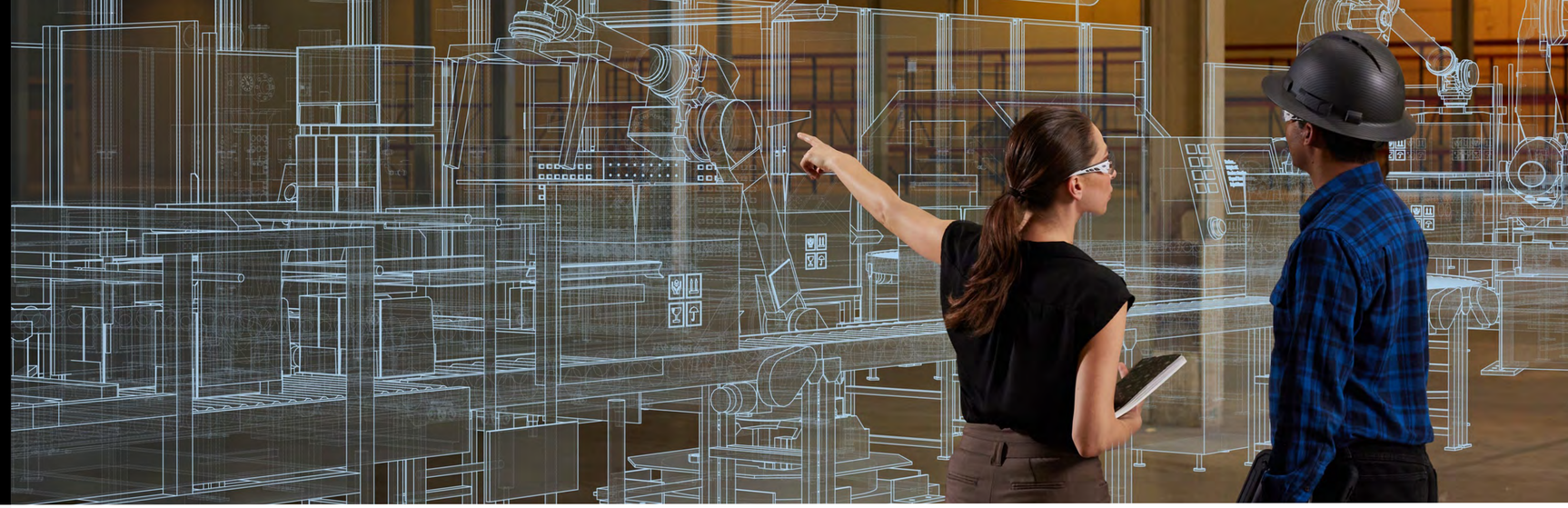
Discover ways to overcome these obstacles in the next chapter.

AI reality check: still much ground to cover

AI technology, such as the Autodesk Assistant, is already able to augment workflows and smoothen processes. But the consistency, granularity, and density of data needed for full automation and analysis is not available yet in most cases.
Demir Ali mentions an example: One of his customers wanted to build an AI agent for their design processes, but just 1% of the required data was available. Dawid Baranik adds, "AI should be an advisor, not the master."

Expectation		Reality
Full automation	>	Workflow augmentation
End-to-end AI	>	Task-specific assistance
Replace humans	>	Support decisions
Ready now	>	Years away

Where to begin your digitalization journey



A digital factory may seem like an enormous undertaking, making it hard to find the right starting point. However, all experts agreed that everything can and should be broken down into smaller chunks. Here are a few key pieces of advice that emerged from the experts' answers.

1. Discovery is key

The first step to starting your digitalization journey is getting a thorough understanding of your factory's as-is state. This means digitally capturing all existing workflows, identifying key processes, and comprehending how the facility operates. Once all this is documented, you can define swimlanes and develop a roadmap for next steps. If you run multiple facilities, it's recommended to create a playbook for standardization, enabling maximum efficiency.

2. Data foundation is crucial

AI is only as good as the data feeding into it. As a consequence, it's mandatory to create a solid data foundation and connect processes before jumping to complex AI-driven workflows. Get real-time visibility of the processes you want to address in order to close the loop between digital and physical.

> **Don't boil the ocean. We see a lot of companies that try and go too big too fast. It's about breaking it all down into usable chunks.**
>
> **Demir Ali**, Senior Solution Engineer, Autodesk

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3. Identify objectives and start small

Once you've established a thorough understanding of your as-is state and a solid data foundation, you will be able to identify the lowest hanging fruit: an achievable goal with strong ROI creating value and putting you on wwthe right path for the future. You can start at any point of the lifecycle; there's no need to follow a rigid sequence. Focus on the now and don't let future developments or external factors delay implementation.

5. Convince C-level with ROI

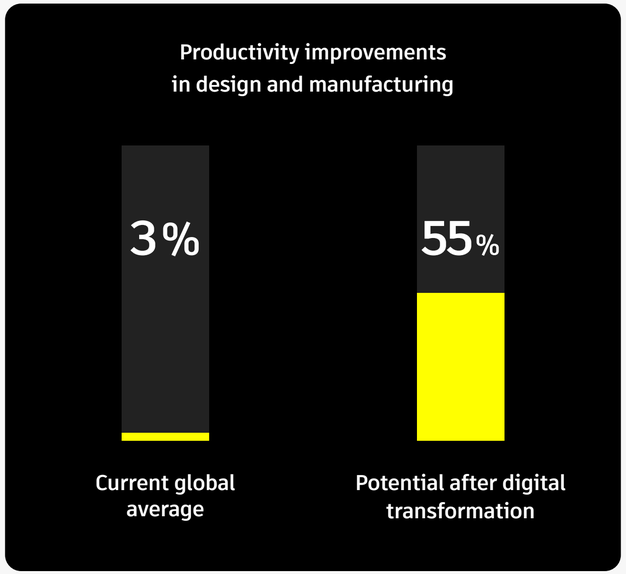
Eventually, everything boils down to the actual effect of the digitalization that can be measured in numbers. Fortunately, the ROI speaks for itself. Even if goals aren't completely achieved, considerable financial gains are available. Demir Ali adds an example: "This particular company wanted a 15% improvement over a multi-year period. But 5% alone was seven figures in return. And they were able to do that in 12 months."

4. Include co-workers and employees

Bear in mind that digitalization represents a significant undertaking. Co-workers and employees may harbor fears towards this shift, which can be alleviated through careful change management. Include people affected by these changes into the process. Educate them to create acceptance.

> **There was a famous story that came out about the Williams Racing Team managing all of their parts in a gigantic spreadsheet. When you see a team that's at the top of the field of motor racing operating in this fashion, it means that there's a competitive advantage available to anybody.**
>
> **Jason Davies**, Senior Account Executive, Autodesk

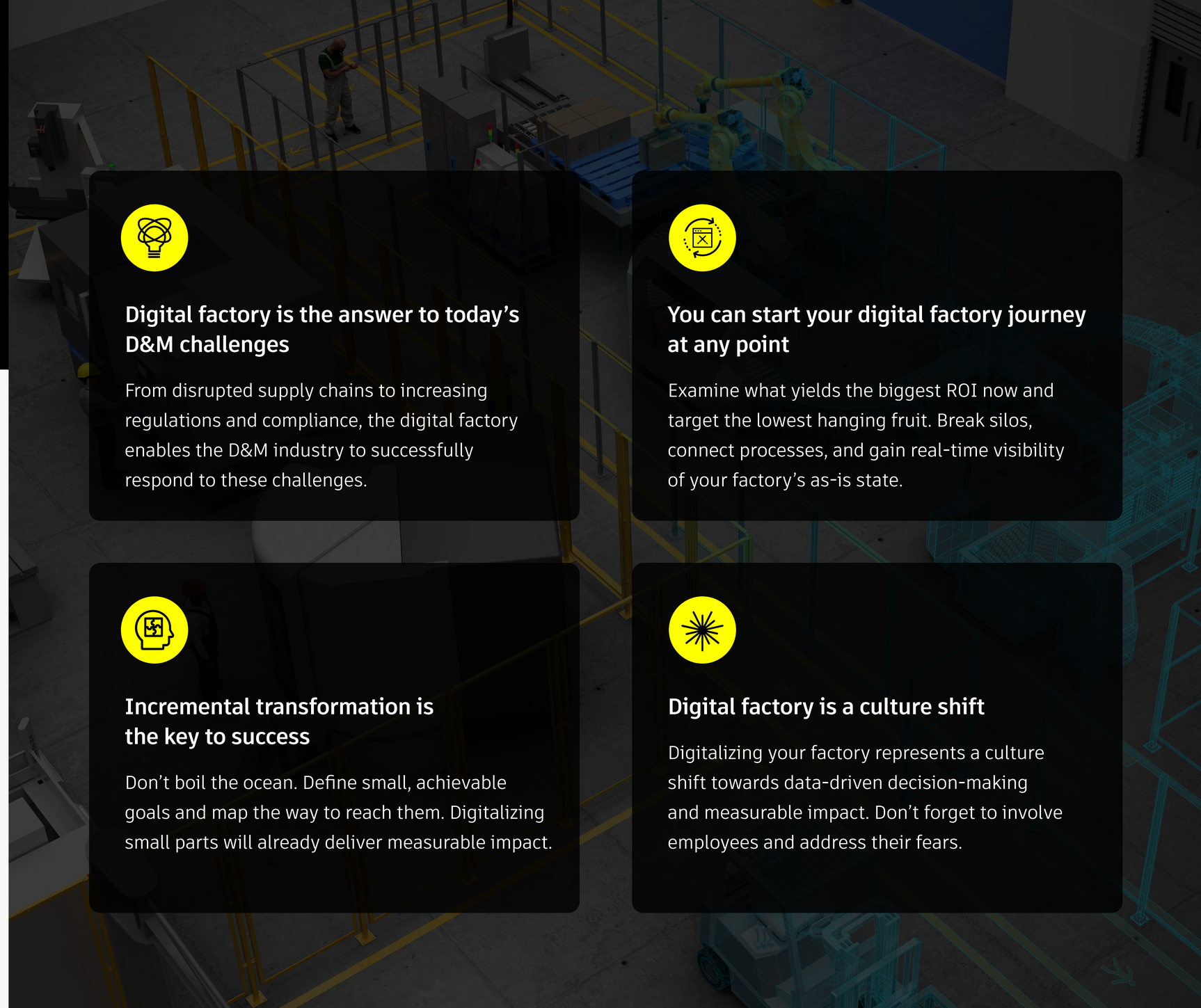
> **Global productivity improvements are plateauing at 3%. But the State of Design and Make Report shows that you can achieve productivity gains of greater than 55% if you invest in this kind of technology. That could apply to anybody.**
>
> **Jason Davies**, Senior Account Executive, Autodesk



Source: Autodesk State of Design & Make Report 2025

Key learnings at a glance

The EMEA Digital Factory Virtual Summit covered a lot of ground, providing numerous surprising insights and inspiring experiences. To help you identify the most important points, we've listed all key learnings here.



Digital factory is the answer to today's D&M challenges

From disrupted supply chains to increasing regulations and compliance, the digital factory enables the D&M industry to successfully respond to these challenges.

You can start your digital factory journey at any point

Examine what yields the biggest ROI now and target the lowest hanging fruit. Break silos, connect processes, and gain real-time visibility of your factory's as-is state.

Incremental transformation is the key to success

Don't boil the ocean. Define small, achievable goals and map the way to reach them. Digitalizing small parts will already deliver measurable impact.

Digital factory is a culture shift

Digitalizing your factory represents a culture shift towards data-driven decision-making and measurable impact. Don't forget to involve employees and address their fears.

Explore the digital factory

All session recordings available on demand

If you want to explore the EMEA Digital Factory Virtual Summit more thoroughly, you can watch all sessions on demand here:

Access recordings on demand

Discover more resources

Would you like to learn more about the digital factory and explore how Autodesk can help you map and accelerate your digital factory journey? Visit our landing page:

Explore resources

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