RA Rockwell Automation

Management Perspectives

DIGITAL TRANSFORMATION: THE 2020 INSIGHT REPORT

The **State of Play of Digital Transformation** in 2020

"Over the last two years our Intelligence team has **cut through the clutter and once again delivered invaluable actionable insights and trends** from executives involved in digital transformation. These show an increased level of integration of business units that would normally be siloed, with substantially more 'top floor' to 'shop floor' integration, empowering companies to function more effectively and efficiently."

Susana Gonzalez
President, EMEA Region President, Rockwell Automation

The Fourth Industrial Revolution is well and truly here and it's an exciting time to be a business in the midst of this change.
The digital transformation of the industrial and manufacturing space has led to the inception of the Industrial Internet of Things (IIoT), and made companies revaluate what it means to be efficient, innovative and competitive.

We have championed the Connected Enterprise – driven by the convergence of digital and physical ecosystems – for several years and supported customers through all stages of their digital transformation strategies. We are always evaluating where businesses are in their efforts to determine their current and future priorities, use cases and challenges. To this end, we conducted a survey that found:

- Across the EMEA region, **54%** of organisations surveyed are implementing and continuously improving their digital transformation journey.

- Globally, **93%** of organisations surveyed have deployed some type of digital transformation project.

Digital transformation is affording more opportunity than ever before, however the future of 360-degree industrial digitalisation is reliant on today's organisations becoming interconnected, with operational technology (OT) such as production machinery fully integrating with information systems. If this is optimised, digital transformation strategies can create new business opportunities, larger revenue streams and greater production efficiencies at scale.

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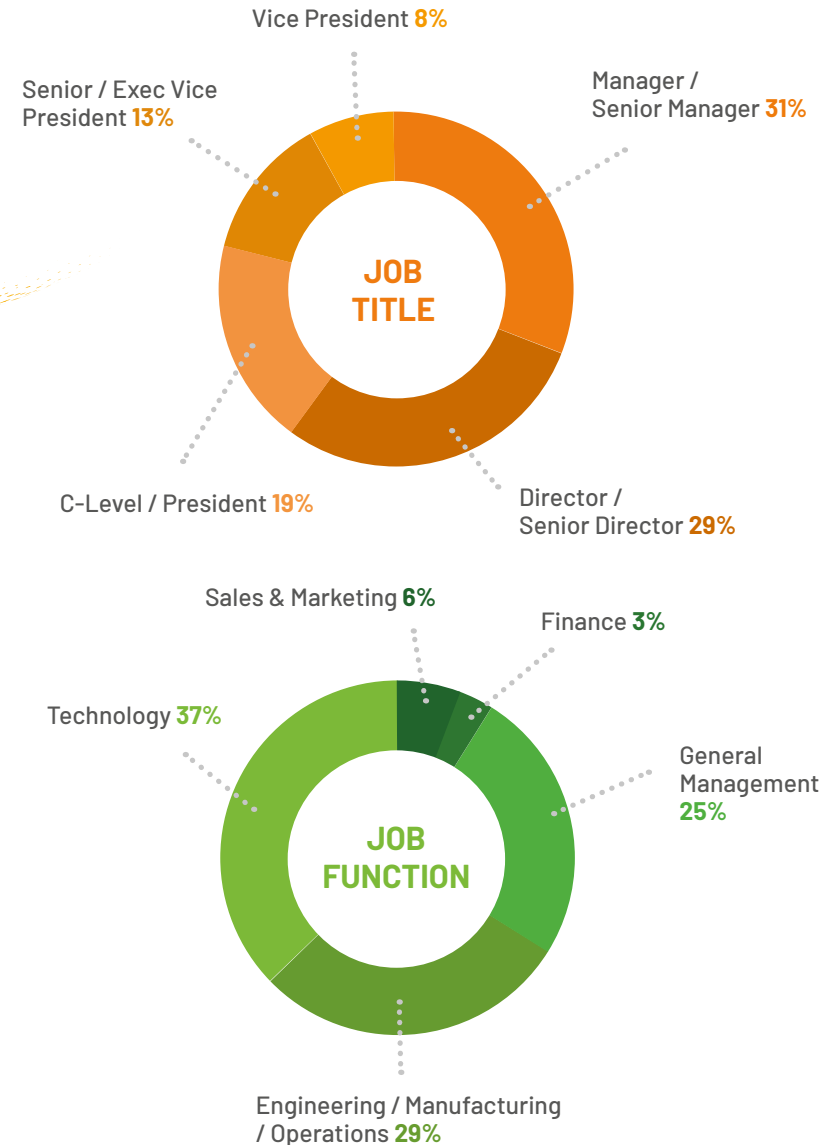The Key Challenges PG 11

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Who Did We Survey?

Globally, we surveyed 350 industrial decision-makers from across automotive, oil and gas, chemicals, metals, mining and cement (MMC), life sciences, food and beverage, and household and personal care (HPC) sectors.

Our research was conducted as a brand-blind study, so respondents were unaware that we were involved. The respondents were sourced through an online panel, and qualified by market, position and industry. The survey respondents included c-suite, general managers, sales, marketing and finance personnel.

"Our survey questions important stakeholders at the centre of digital transformation and IIoT. The proliferation of digital transformation strategy is no longer solely within the remit of the CIO. Successful transformation requires the convergence of IT and OT."
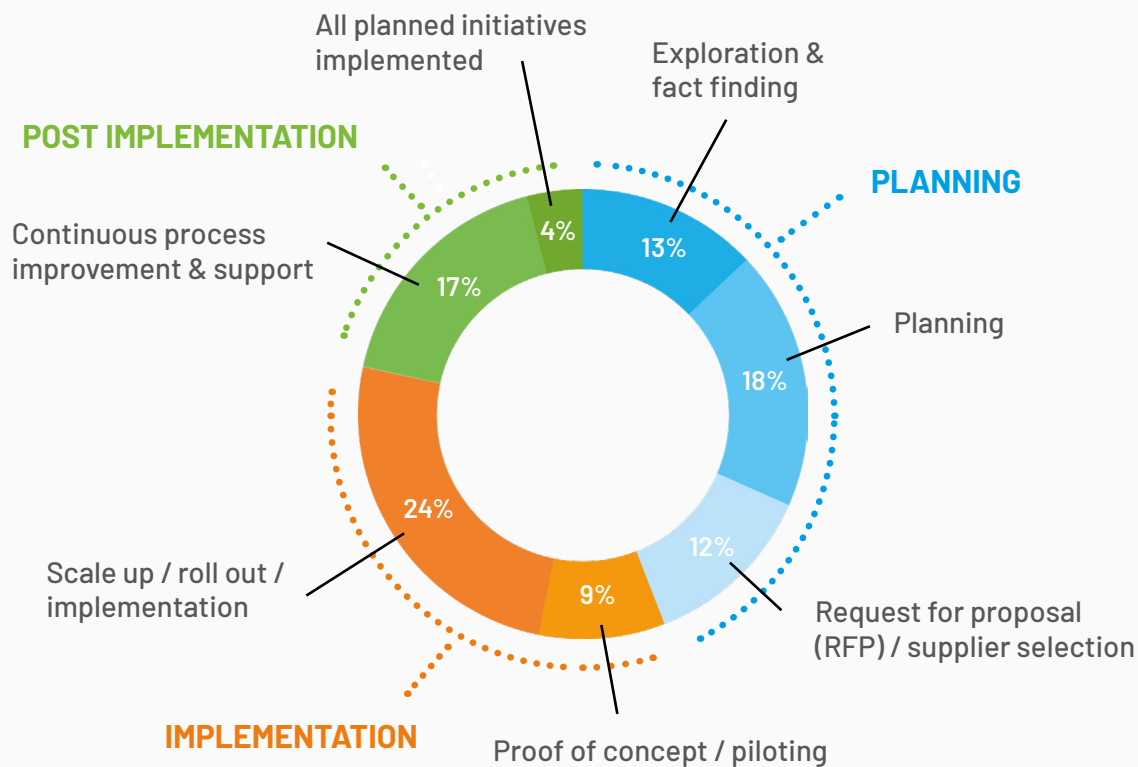
Paolo Butti
Director, Industry & OEM, EMEA

JOB TITLE

- Vice President **8%**
- Manager / Senior Manager **31%**
- Senior / Exec Vice President **13%**
- Director / Senior Director **29%**
- C-Level / President **19%**

JOB FUNCTION

- Sales & Marketing **6%**
- Finance **3%**
- Technology **37%**
- General Management **25%**
- Engineering / Manufacturing / Operations **29%**

Regions: *EMEA 26%, Asia Pacific 26%, North America 25%, South America 22%*

Status of
Digital Transformation and IIoT Initiatives

POST IMPLEMENTATION

All planned initiatives implemented

Continuous process improvement & support

PLANNING

Exploration & fact finding

4%

13%

17%

18%

Planning

24%

12%

9%

Scale up / roll out / implementation

Request for proposal (RFP) / supplier selection

IMPLEMENTATION

Proof of concept / piloting

Most companies across EMEA are in the midst of implementing digital transformation plans. A third (33%) of companies across this region are either fully scaling up and rolling out digital transformation strategies, or conducting pilot programmes to kick off digital transformation activities.

Last year, fewer companies said they were in their planning phases. And if we go back five years, the conversations were more focused around educating people, and making a case for connected enterprises.

Core Drivers for Digital Transformation Within Three Years

Cybersecurity and risk mitigation are the core reasons driving digital transformation over the next three years. **74%** of EMEA respondents said that improving IT security was their number one priority, closely followed by **66%** who said that improved safety was a major focal point.

The demand for cybersecurity initiatives may be attributed to a substantial increase in threats, such as malware, phishing, hackers, human error, and high-profile data and security breaches. Cybersecurity investments are being prioritised with clear alignment to strategic business activities and often aligned with safety initiatives.

While security and safety have often been considered or treated as separate entities, they are intrinsically linked. Consider the impact of a security breach for a water supplier: not only does it have the potential to impact operations, but public safety. As such, the fact that safety concerns follows closely behind security isn't surprising.

Digital transformation is also being used to improve operational efficiency, driving up sales and supporting marketing initiatives. These Connected Enterprise initiatives aren't just for short-term quick wins, they are critical for retaining market competitiveness.
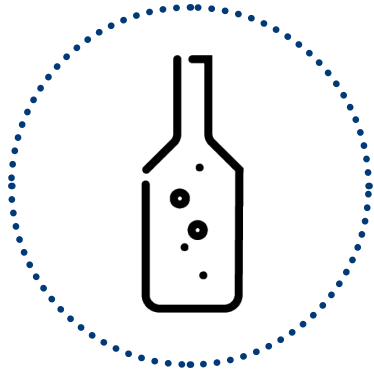
CASE STUDY:

Food and Beverage Industry

A global food leader begins their journey to the Connected Enterprise. Converging IT and OT to align multiple processes, people and geographies they achieve greater productivity and sustainability.

CHALLENGE

With several manufacturing sites around the world, the company needed to increase visibility and remote monitoring across sites to ensure that people, processes and geographies could stay aligned and connected at all times.
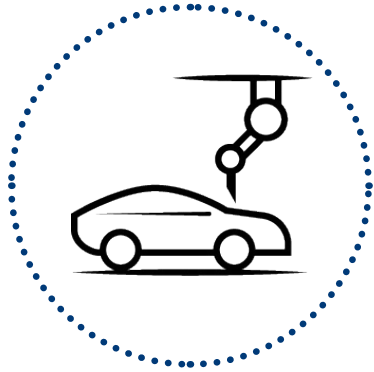
SOLUTIONS

- We helped the company converge plant-level and enterprise networks, securely connecting people, processes and technologies.

- Our consulting services helped identify the existing IT layer and applications for future roadmaps and requirements.

- We enabled the global food leader to remotely monitor plant processes.

- We increased uptime at the company's industrial data centres by running multiple operating systems and applications from virtualised servers.

RESULTS

- Increased cybersecurity and reduced risk.

- The new system provides more visibility across sites, increasing connectivity and enabling more efficiencies.

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CASE STUDY:
Automotive and Tyre Industry

PHA, a world leader in the automotive sub-assembly business, has seven plants across the Czech Republic, Slovakia, China, India and the USA, and three worldwide sales branches.

CHALLENGE

PHA needed support with project managing, designing, installing and commissioning a complete turnkey door module assembly line.

SOLUTIONS

We began with a detailed specification using 3D models of the final product. Once this was confirmed, we developed and deployed a complete end-to-end solution: from the control solution and software, to the mechanical and electrical elements.

RESULTS

- The integrated control systems provide a more flexible and open platform for both remote troubleshooting and local maintenance.

- In addition to hitting production targets, PHA will gain significant benefits from reduced programming time required for developing new lines, as well as the easy software configuration.

GLOBAL AUTOMOTIVE AND TIRE INDUSTRY USE CASES

Within 3 years DT use cases	Beyond 3 years DT use cases
• Improved workforce productivity • Improved CX • Reduced lead time • Optimised inventory levels • Improved personnel safety	• Reduce energy costs • Reduce costs of goods sold • Achieve flexible manufacturing • Increase environmental safety • Remove bottlenecks (Lean manufacturing)

What Are the
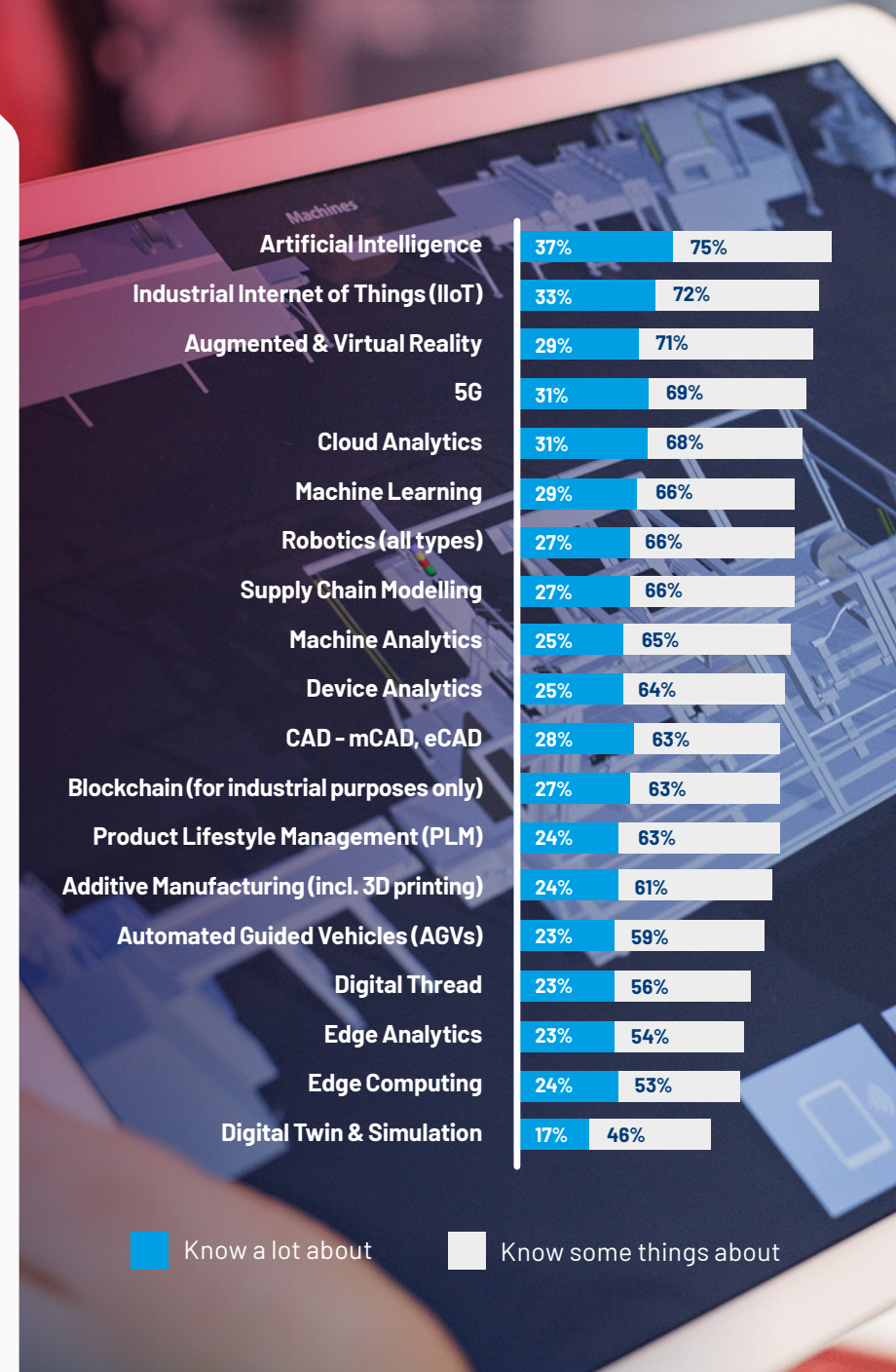# Technologies Most Critical for Success?

EXPLORING INDUSTRIAL AUGMENTED REALITY

You can transform operations, facilitate knowledge transfer and improve profitability by empowering workforces with mixed reality solutions.
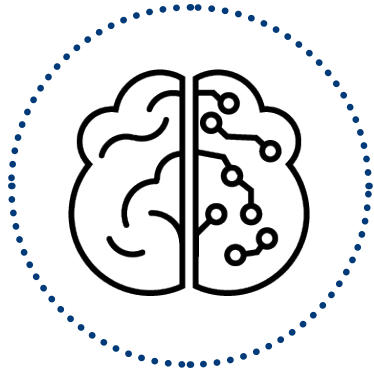
Augmented reality can empower users to quickly create and deliver AR content and deploy to the cloud or on premises using smartphones, tablets or wearable devices via a single universal viewer application.

Industrial AR can be used to vastly improve workforce productivity, efficiency and customer satisfaction. Real-time, step-by-step work instructions, combining advanced AR with real-time communications, connect field technicians with specialists.

Those specialists can see and discuss situations in the field and guide technicians through a process, without the need for travel or repeat technician visits.

Technology	Know a lot about	Know some things about
Artificial Intelligence	37%	75%
Industrial Internet of Things (IIoT)	33%	72%
Augmented & Virtual Reality	29%	71%
5G	31%	69%
Cloud Analytics	31%	68%
Machine Learning	29%	66%
Robotics (all types)	27%	66%
Supply Chain Modelling	27%	66%
Machine Analytics	25%	65%
Device Analytics	25%	64%
CAD – mCAD, eCAD	28%	63%
Blockchain (for industrial purposes only)	27%	63%
Product Lifestyle Management (PLM)	24%	63%
Additive Manufacturing (incl. 3D printing)	24%	61%
Automated Guided Vehicles (AGVs)	23%	59%
Digital Thread	23%	56%
Edge Analytics	23%	54%
Edge Computing	24%	53%
Digital Twin & Simulation	17%	46%

■ Know a lot about   □ Know some things about

CASE STUDY:
Technology

With years of experience designing and manufacturing machinery and solutions for the automotive industry, 3V Automation is an intelligent automation company that focuses on automated production and process engineering.

CHALLENGE

3V Automation needed to differentiate its machine offerings for its customers.

SOLUTIONS

- Vuforia® delivered enhanced operations and remote maintenance capabilities through AR technology.

- FactoryTalk® InnovationSuite, powered by PTC helped to accelerate 3V Automation's digital transformation.

- ThingWorx® IIoT platform provided the capability to connect, manage, monitor, and control diverse automation devices and software applications through one intuitive user interface.

RESULTS

- **Digital Transformation** – 3V Automation has created a new ecosystem of connected machines and analytics to remotely support global customer workforces.

- **Improved Productivity and Customer Satisfaction** – The new solution has improved productivity, reduced downtime, and lowered maintenance costs and risks.

- **Improved return on investment** to customers.

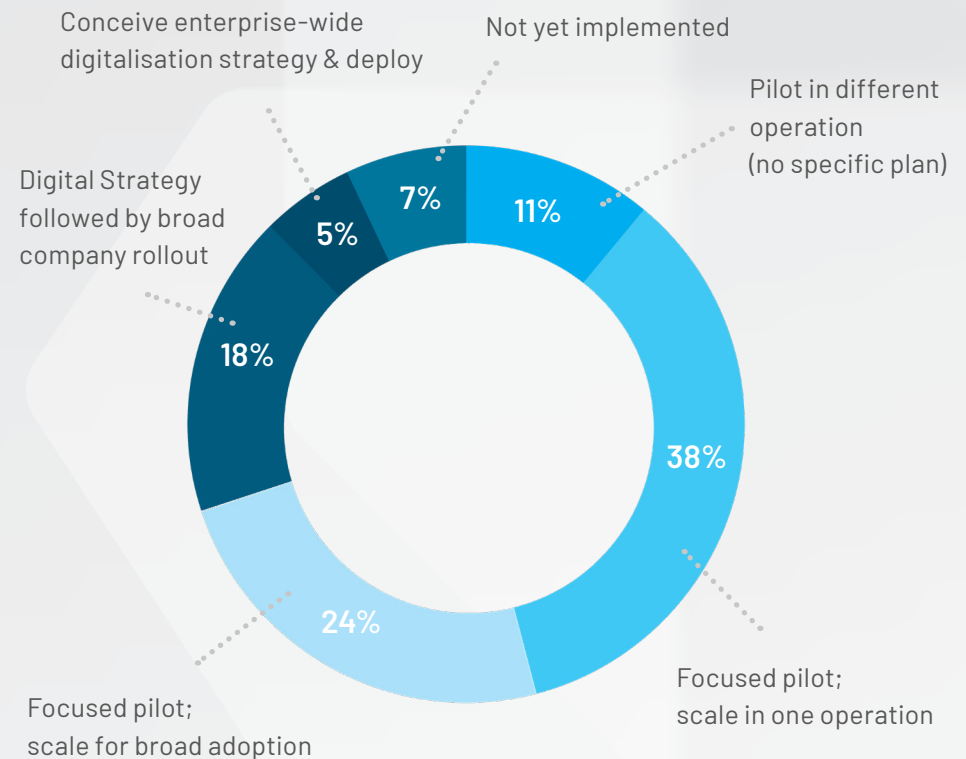- 3V Automation now has an international solution to service its customers worldwide.

Approach to
Implementing Digital Transformation

The majority of EMEA organisations are deploying digital transformation strategies via focused pilot projects. This delivers proof of concept before being rolled out across on an organisation at scale.

Key points

- **70%** of respondents are starting their digital transformation journey with a pilot followed by a scale-up approach.

- **23%** of respondents have started with an enterprise strategy.

- **84%** of respondents would carry on with the same approach.

APPROACHES IN IMPLEMENTING DIGITAL TRANSFORMATION

Conceive enterprise-wide digitalisation strategy & deploy — 7%

Not yet implemented

Pilot in different operation (no specific plan) — 11%

Digital Strategy followed by broad company rollout — 5%

18%

38% Focused pilot; scale in one operation

24% Focused pilot; scale for broad adoption

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The Key **Challenges** Facing Digital Transformation

- **Cybersecurity**

- **Integrating legacy infrastructure**

- **Competing demands for resources**

The boundaries between IT and OT are converging. Millions of organisations require continuous access to real-time data. Older industrial systems that are not online-enabled are becoming increasingly connected. This IIoT connectivity potentially exposes industrial control systems and other operational technology platforms to external risks, such as malware, hackers, ransomware, data theft and insider threats.

TOMORROW'S LANDSCAPE

In the last decade, digital transformation has gone from a buzzword to reality. Organisations are using strategies to increase efficiencies, drive innovation and become more competitive. This not only leads to great societal impact, but also a significant impact on the bottom line.

Over the next year and beyond, we'll see organisations across all sectors becoming increasingly interconnected and integrated, and reaping the benefits that digital transformation is affording them.

We're excited to be a part of these individual journeys towards the truly Connected Enterprise, and the larger journey that industry is undergoing to expand human possibility.

For more insights, visit the Management Perspectives online hub at:

rok.auto/managementperspectives

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