

Simply automate – innovations for a future-proof industry

SPS 2023 Press Conference

Rainer Brehm, CEO Factory Automation at Siemens

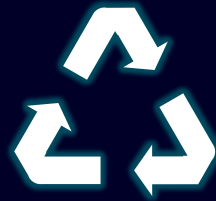


SIEMENS

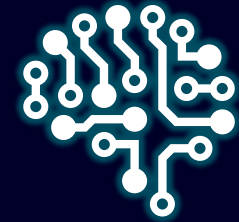
Simply automate



Industry can now automate
much more easily
with Siemens

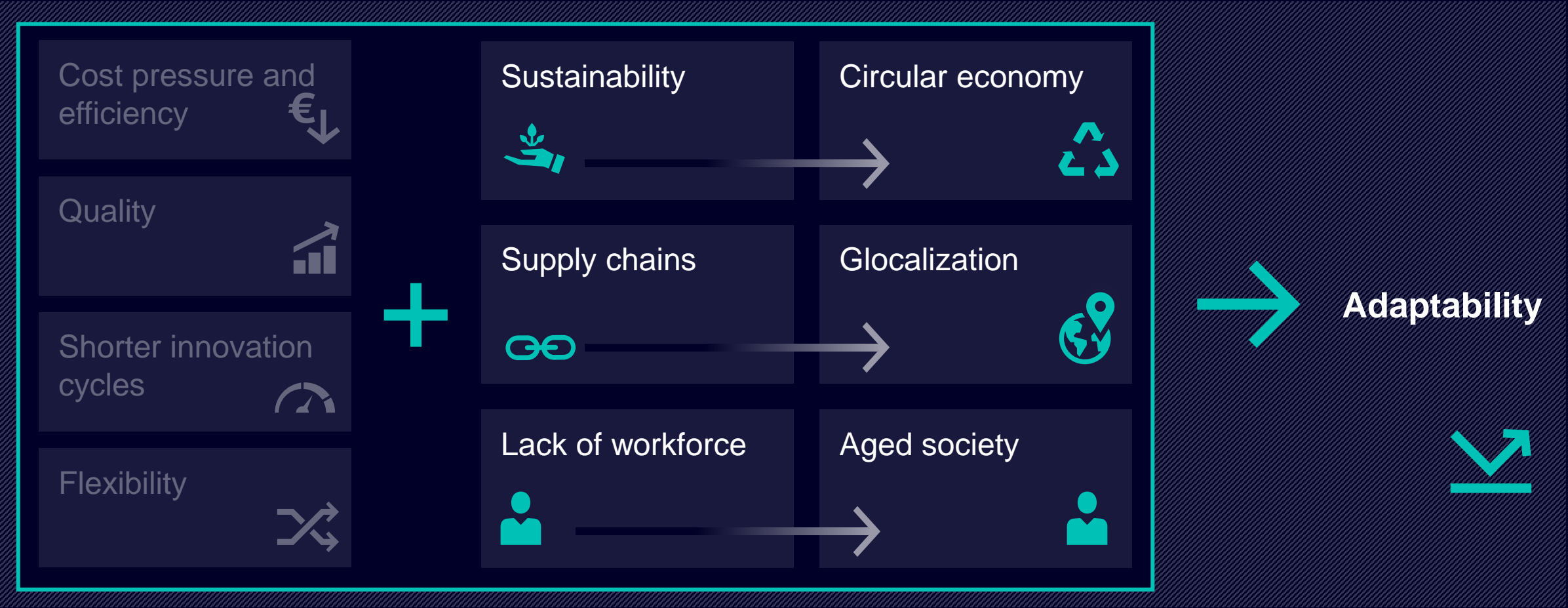


Siemens is driving a sustainable
circular economy



Siemens is making
**artificial
intelligence**
Industrial-grade

Hannover Messe 2023: A resilient industry must be able to adapt its processes faster



Industry must now rigorously automate



- 45% by 2030

emissions from production and logistics¹



~85 million shortfall

of skilled workers worldwide by 2030³



>40% glocalization

by producing companies worldwide²



Productivity stagnating

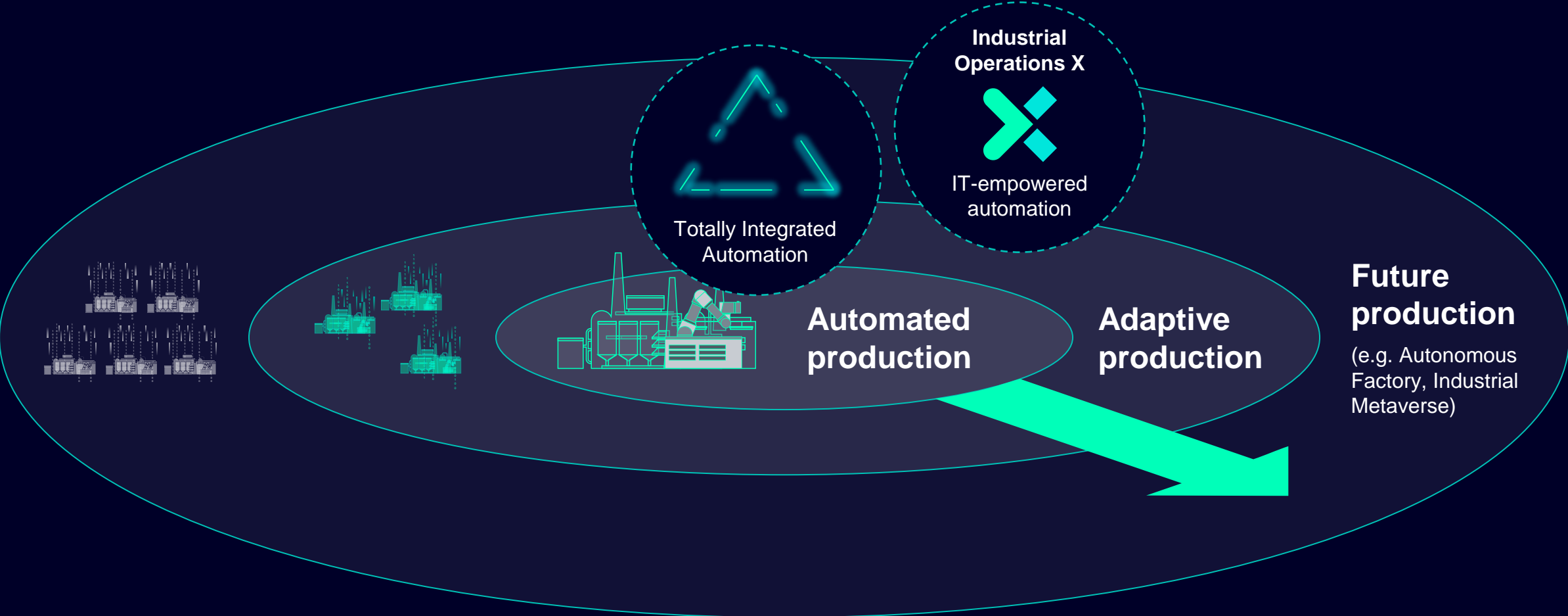
in Germany⁴

¹ Necessary to achieve the goals of the Paris Accord. Source: [The Boston Consulting Group](#) | ² 43% of all companies surveyed. Source: [BCG, Flex Factory, WHU](#) |

³ Source: [Korn Ferry](#) | ⁴ -1% productivity/hour during 1st quarter of 2023 compared to same quarter of previous year. Source: [Institut für Arbeitsmarkt und Berufsforschung](#)

Future-proof investment

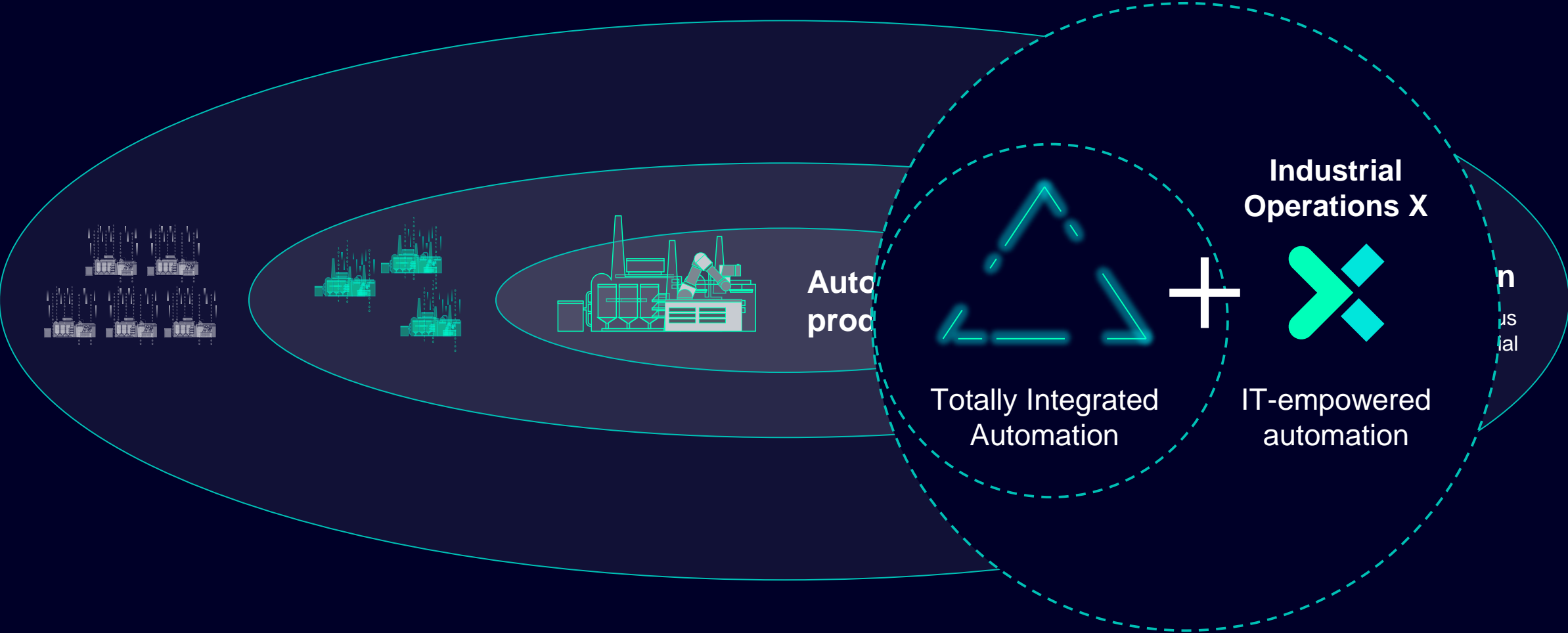
Totally Integrated Automation, enhanced by Industrial Operations X



Future production
(e.g. Autonomous Factory, Industrial Metaverse)

Future-proof investment:

Totally Integrated Automation, enhanced by Industrial Operations X



Resource efficiency through the circular economy

Sorting of plastic waste for recycling requires massive expansion

>60% of plastic waste in Germany is burned.



Hard
physical labor

Dangerous
work environment

Error-
prone

Tremendous
quantities

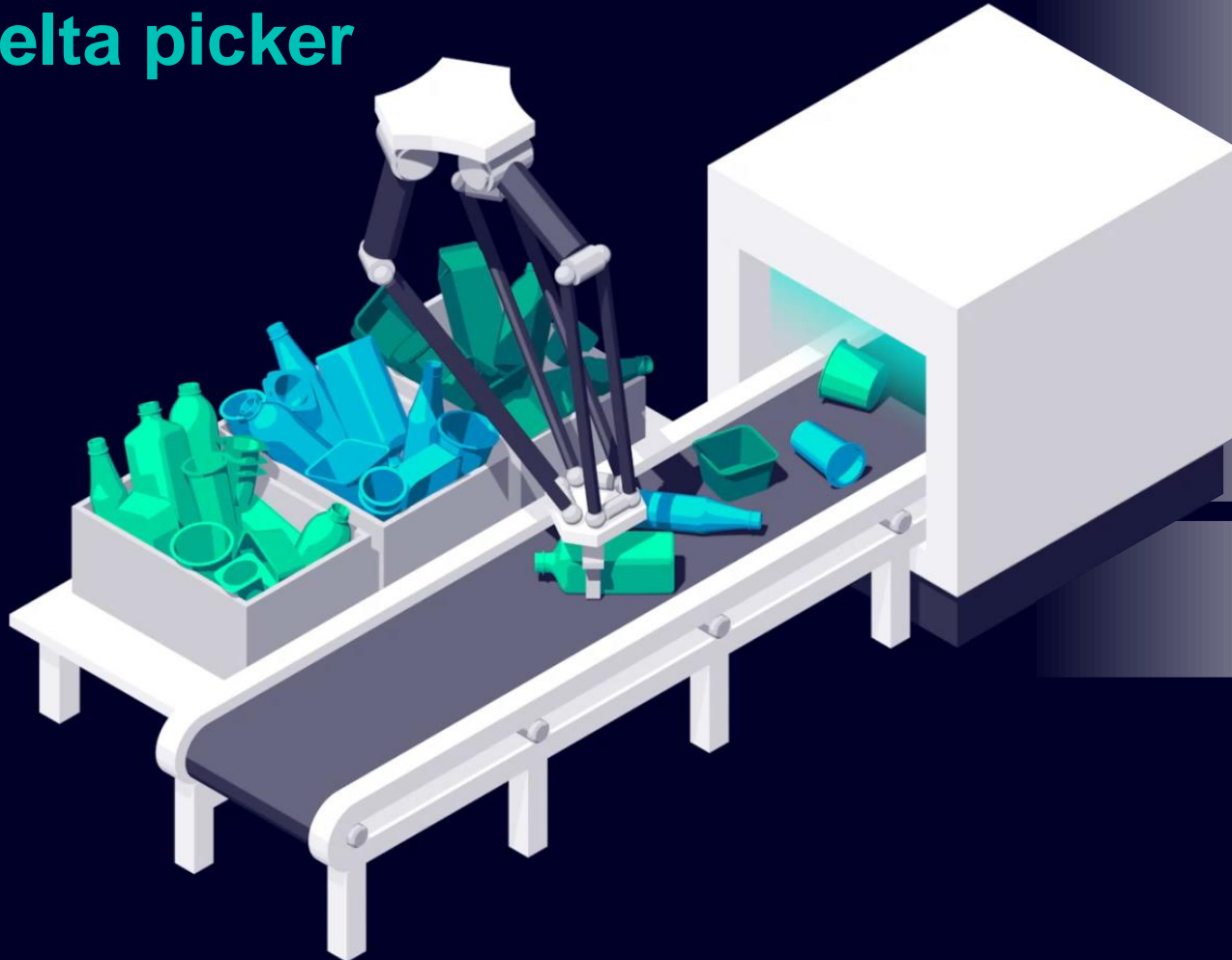
Source: [Umweltbundesamt](https://www.umweltbundesamt.de/en/news/2021-01-14) (2021) | Source of the film: <https://vdrs.com/>

SIEMENS

Delta picker identifies and sorts at high speeds

Highest demands on automation technology – easy to implement and use

Delta picker



1 Motion processes

2 Resource efficiency

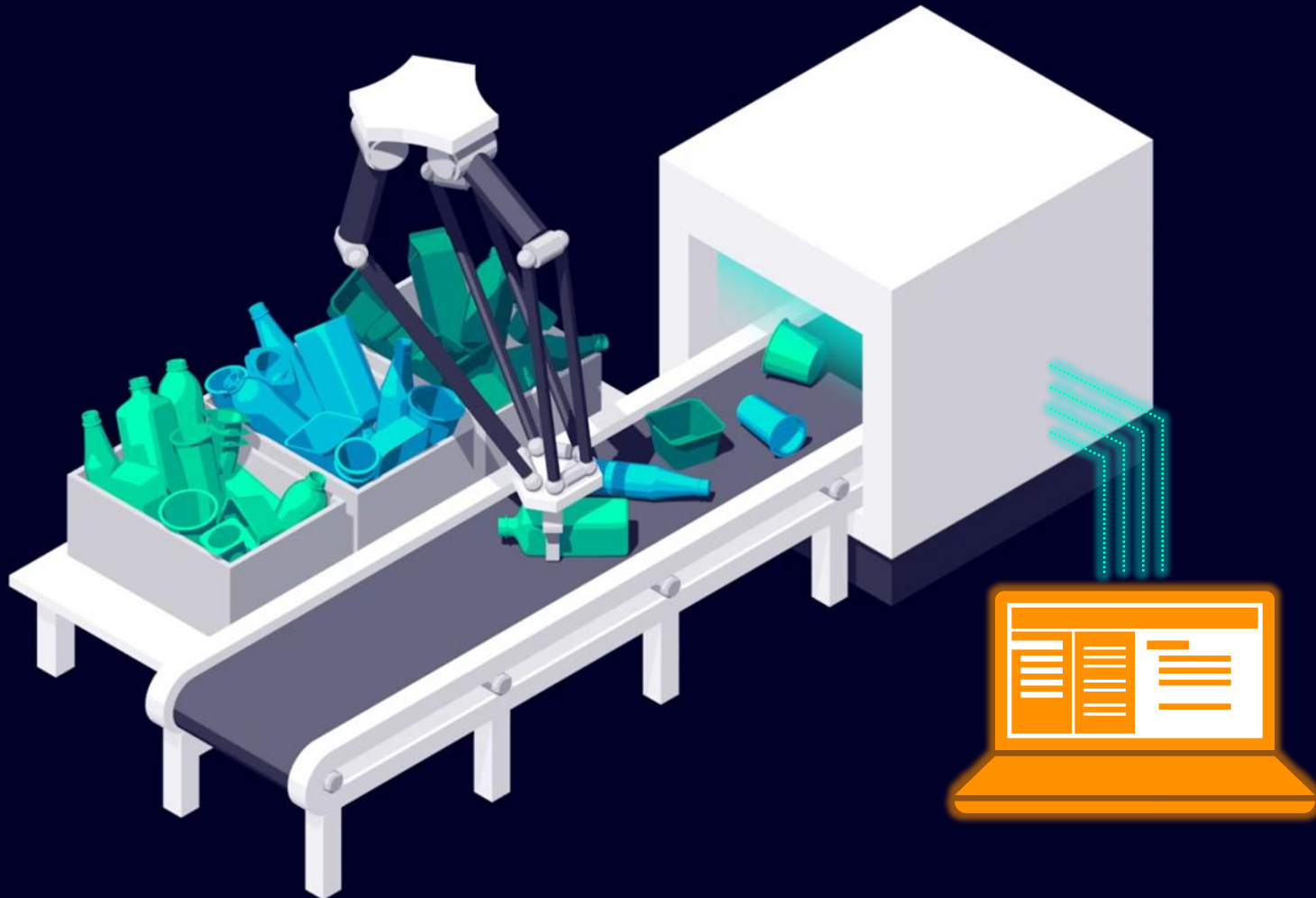
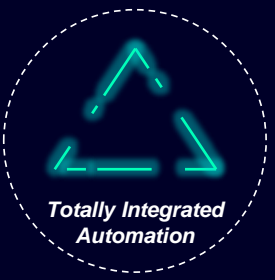
3 Modular apps

4 Artificial intelligence

Simply automate

Motion processes

Engineering, control, and drives for motion processes easier than ever

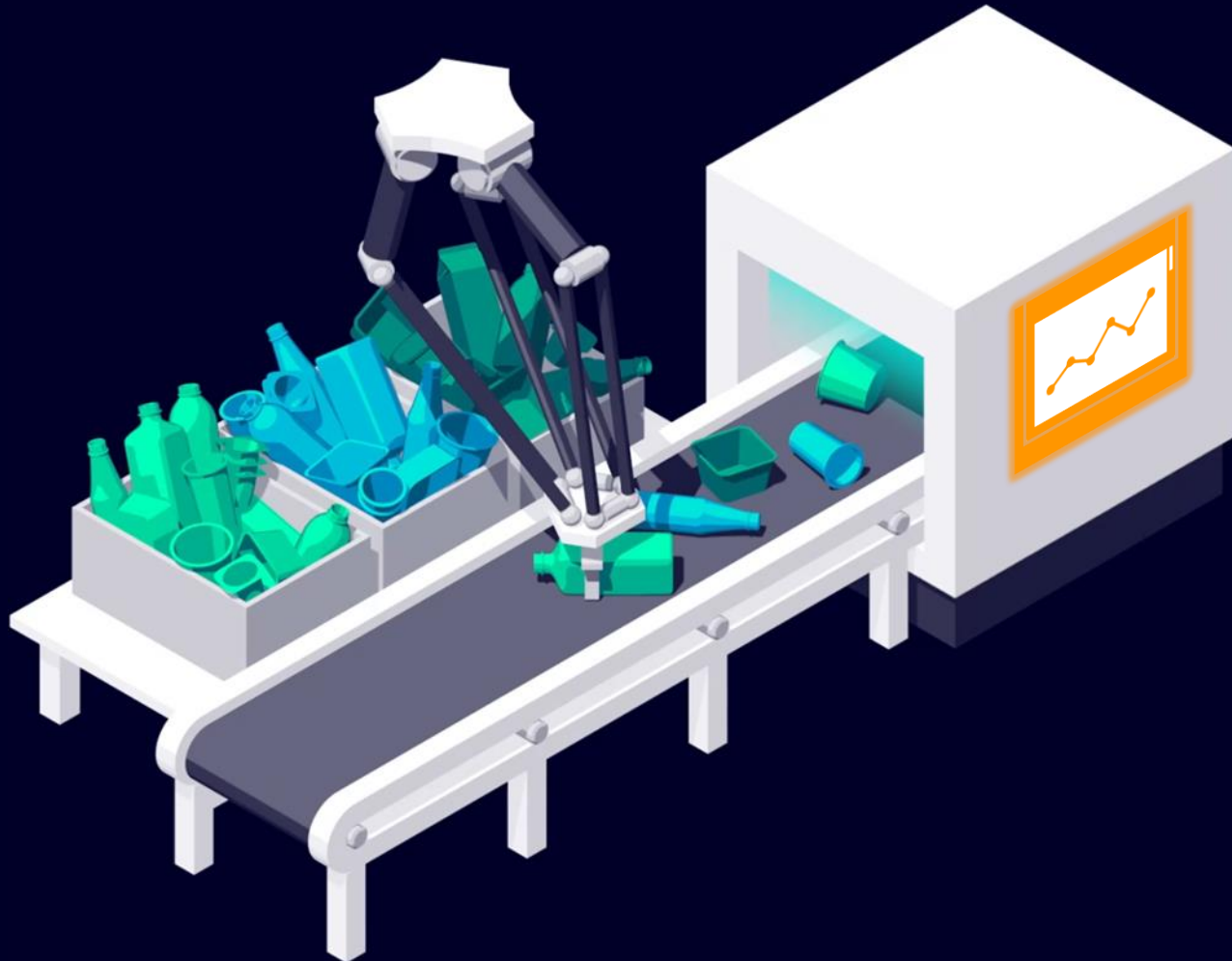
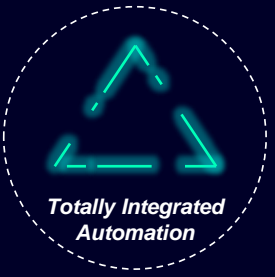


NEW

TIA Portal V19

All core motion functions
from individual axes to
complex kinematics
Graphical user interfaces

Engineering, control, and drives for motion processes easier than ever



NEW

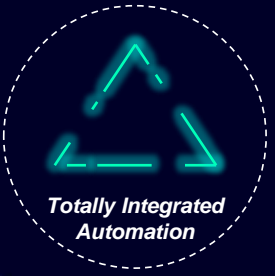
Simatic Motion Interpreter

Simple programming without specialized knowledge

Changes without intervening in the PLC program

SIEMENS

Engineering, control, and drives for motion processes easier than ever



NEW

Sinamics S200 & S210

Sinamics S200:

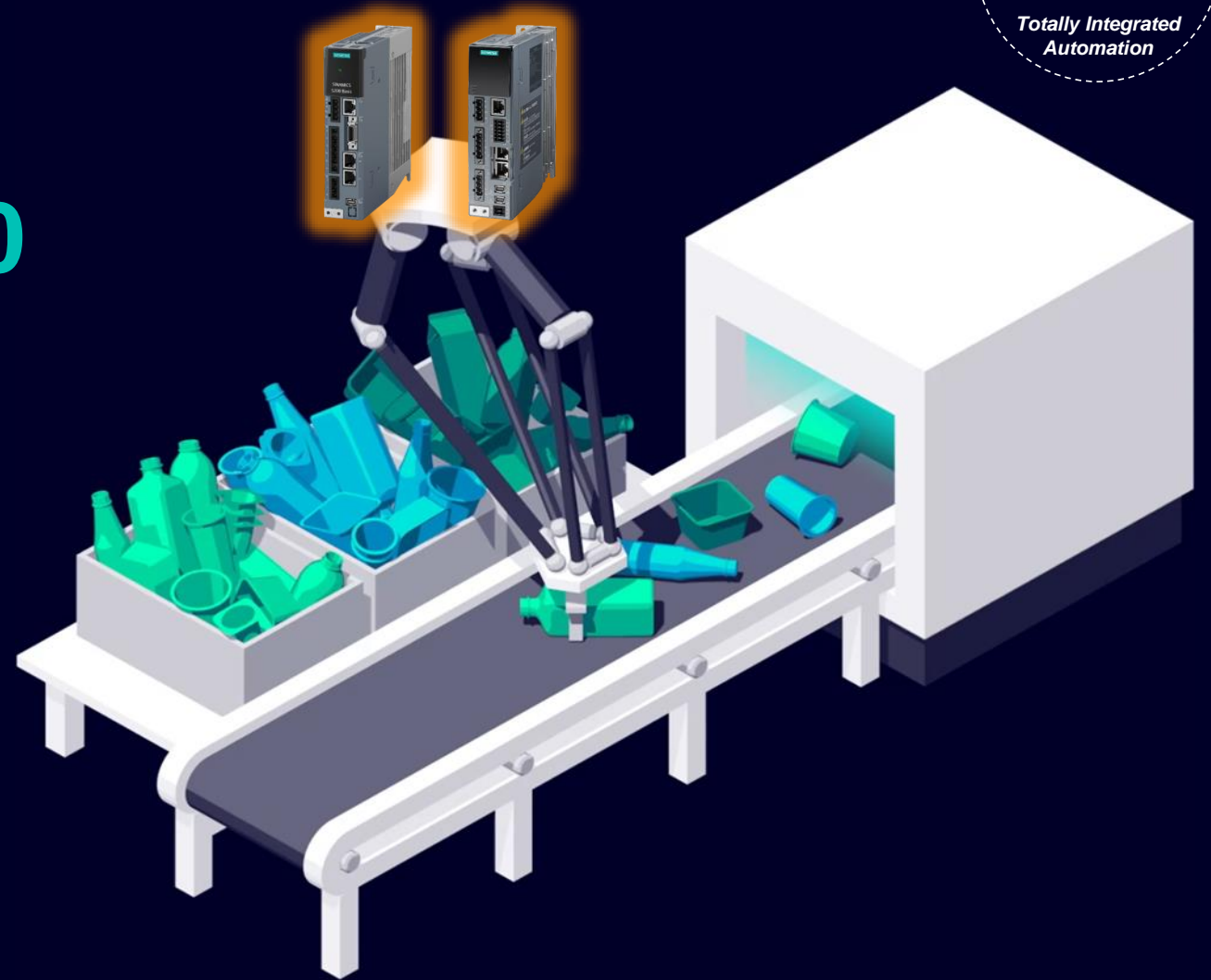
Performance-optimized for standard servo drives

Simple engineering via TIA Portal integration

Sinamics S210:

Safety Integrated thanks to SIL3 safety functions

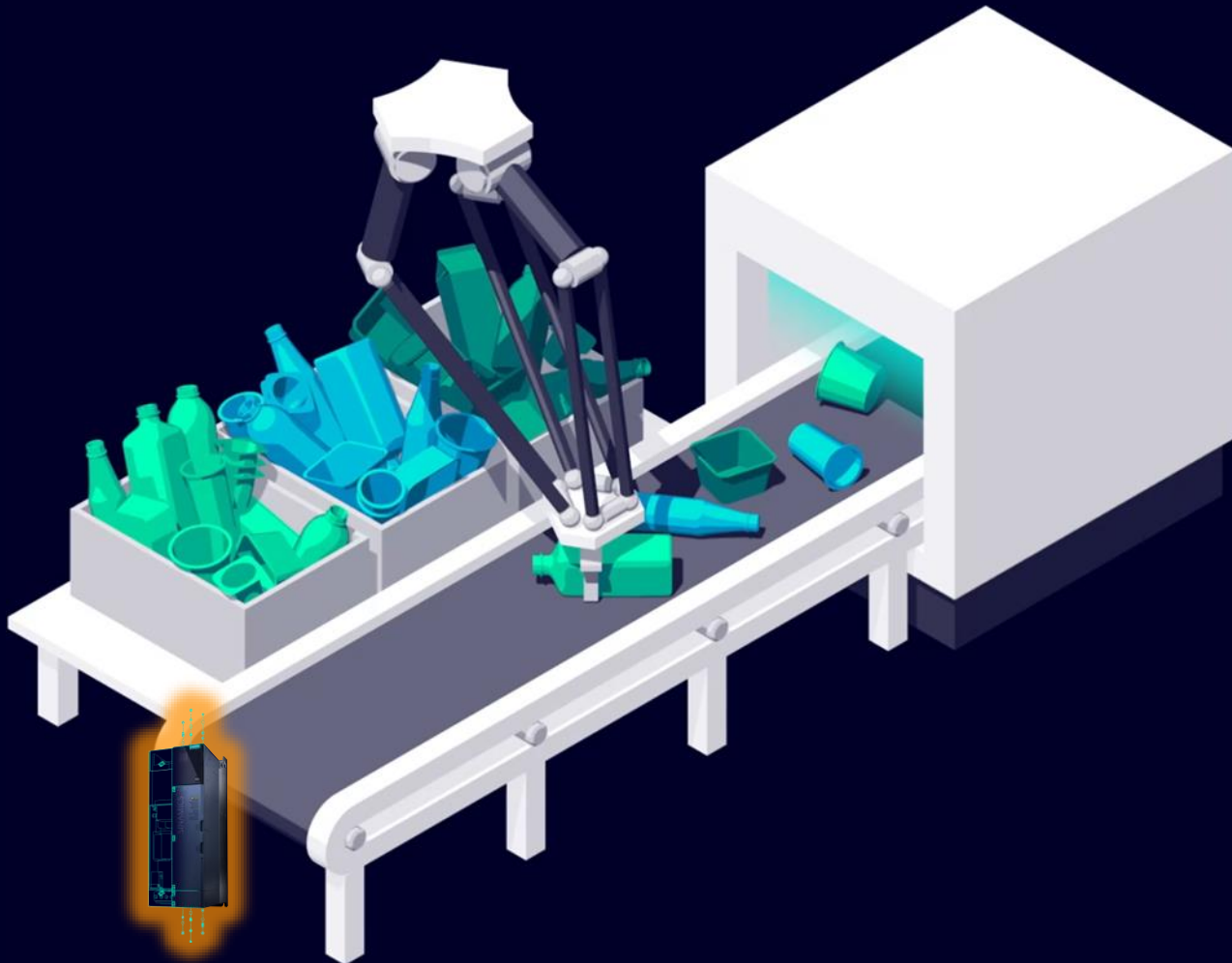
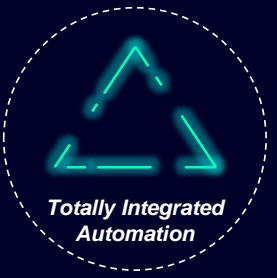
Virtual tests with a digital twin



Simply automate

Resource efficiency

Greater resource efficiency in motion processes
Produce more sustainably with Siemens



NEW

Sinamics G220

Saves money and space:
95% less harmonic distortion
Virtual tests thanks to Digital Twin
Connectivity to Edge and Cloud

SIEMENS

Fulfill legal requirements more easily with Siemens

On the path to the Digital Product Passport



ID Link with EPD data¹

NEW



Lifecycle Choices – Sustainability

We apply our technologies and solutions to advance growth toward a [sustainable future](#)

General Information

- Ø Product Carbon Footprint: **254 kg CO² eq**
Find out the actual Product Carbon Footprint of your devices by using → [SiGREEN](#)
- Ø Water Use: **57,9 m³ world eq**
- Ø Fossil Ressource Use: **4300 MJ**

i Further Information in the → [Environmental Product Declaration \(EPD\)](#)

Your Lifecycle Choices

Reuse

Repair

Recycle

Digital Product Information

Digital Product Passport

... based on

AAS
incl. VDI 2770,
ECLASS, etc.

Siemens in German and international initiatives

MANUFACTURING-X

**Digital Data Chain
Konsortium**

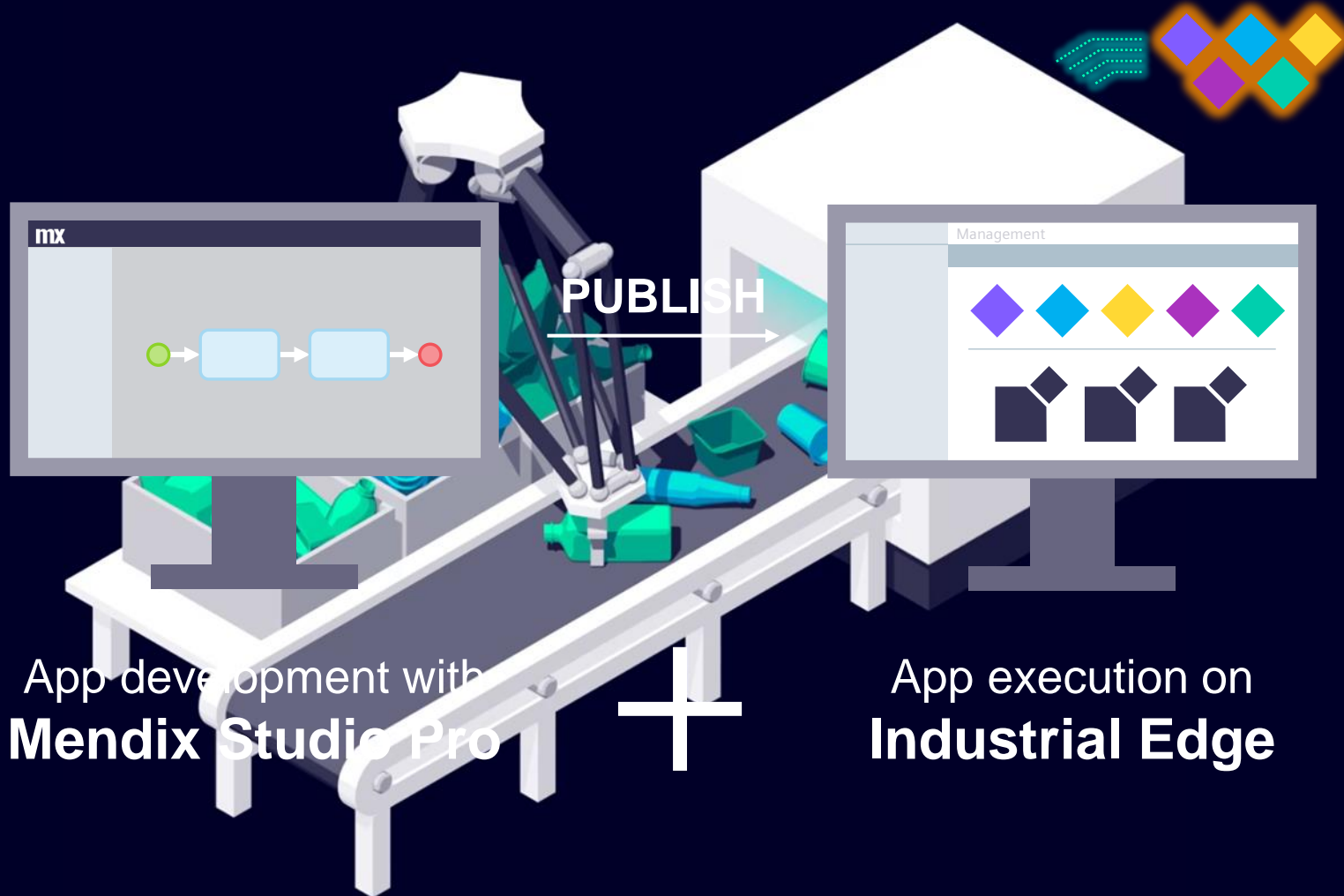
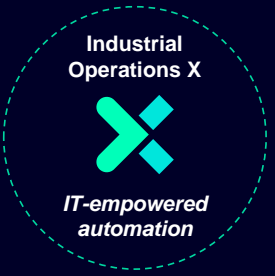
1) Environmental Product Declaration

Simply automate

Modular apps

Faster create apps tailored for the OT environment

Make or buy with Mendix and Industrial Edge



App development with
Mendix Studio Pro

App execution on
Industrial Edge

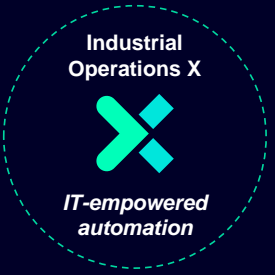
NEW

Mendix on Edge

Seamless integration
from IT to OT

Reusable modules for quick
and easy app development

Quick and easy integration of machine vision



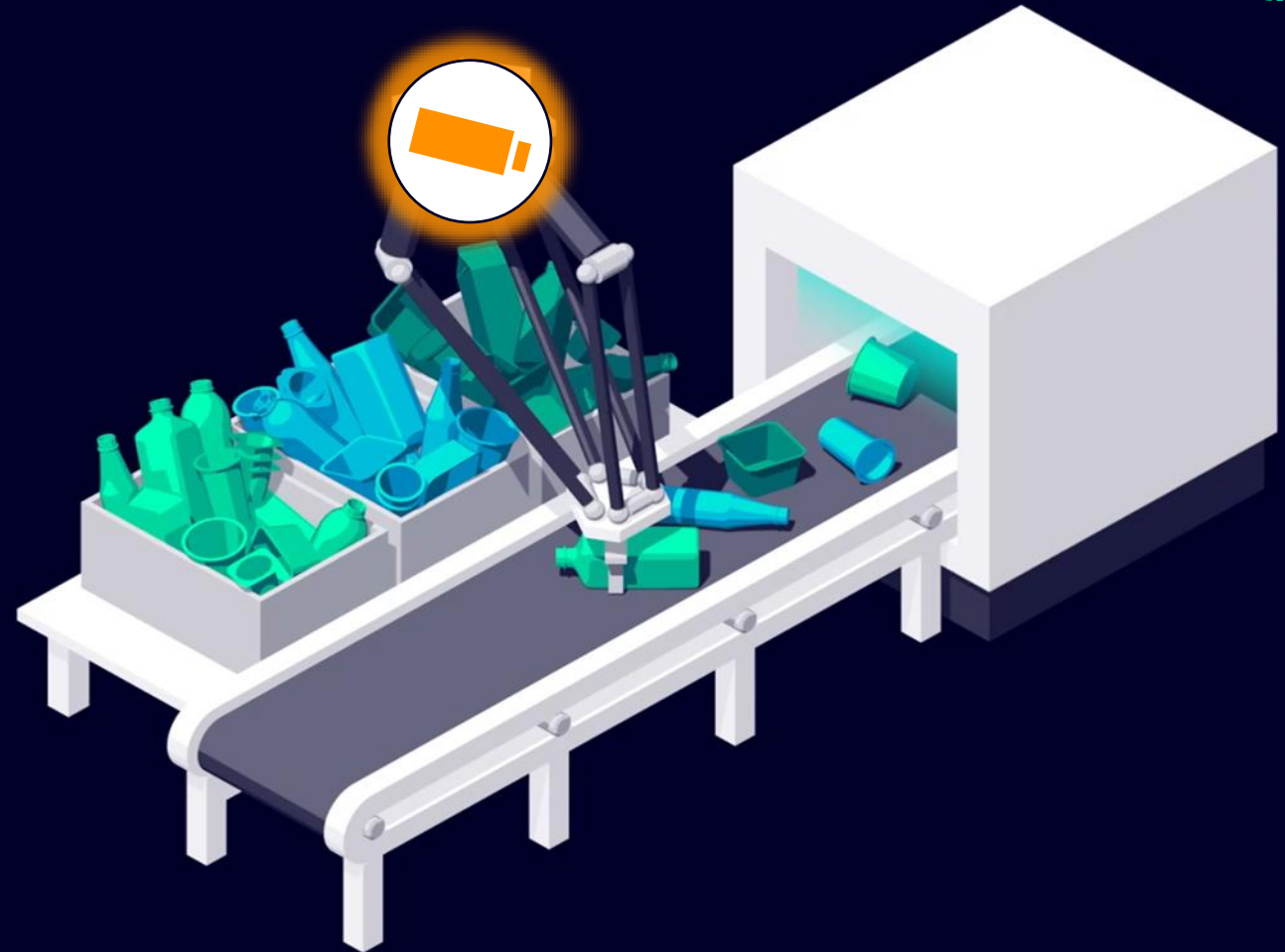
Partnership with Basler and MVTec

Integrate Basler cameras in Siemens hardware

Bring your own AI models to the shop floor

MVTec: end-to-end anomaly detection on Industrial Edge

No additional stand-alone solutions in operation



Simply automate

Artificial intelligence

The image shows a modern industrial factory environment with several white robotic arms. The scene is dimly lit with a strong blue color cast. The robotic arms are positioned in various stages of assembly or manufacturing. The central focus is a robotic arm in the foreground, which is slightly out of focus, with the text 'AI Revolution' overlaid on it. Other robotic arms are visible in the background, some with green and red lights. The overall atmosphere is one of advanced technology and automation.

AI Revolution

SIEMENS

Q Please tell me what 1234 times 2345 is.
•••

A The product of 1234 multiplied by 2345 is 2,889,530.
•••

Q Can you explain the result?
•••

A Certainly! To multiply 1234 by 2345, you would perform the following steps:
•••

$$\begin{array}{r} 1234 \\ \times 2345 \\ \hline \end{array}$$

6170	(1234 multiplied by 5)
4936	(1234 multiplied by 4, shifted one position to the left)
2468	(1234 multiplied by 3, shifted two positions to the left)
1234	(1234 multiplied by 2, shifted three positions to the left)

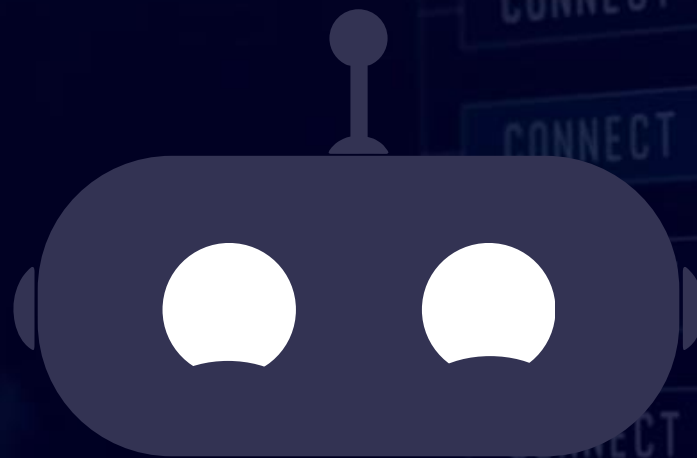
2885230 (Sum of all the partial products)

Challenges in AI

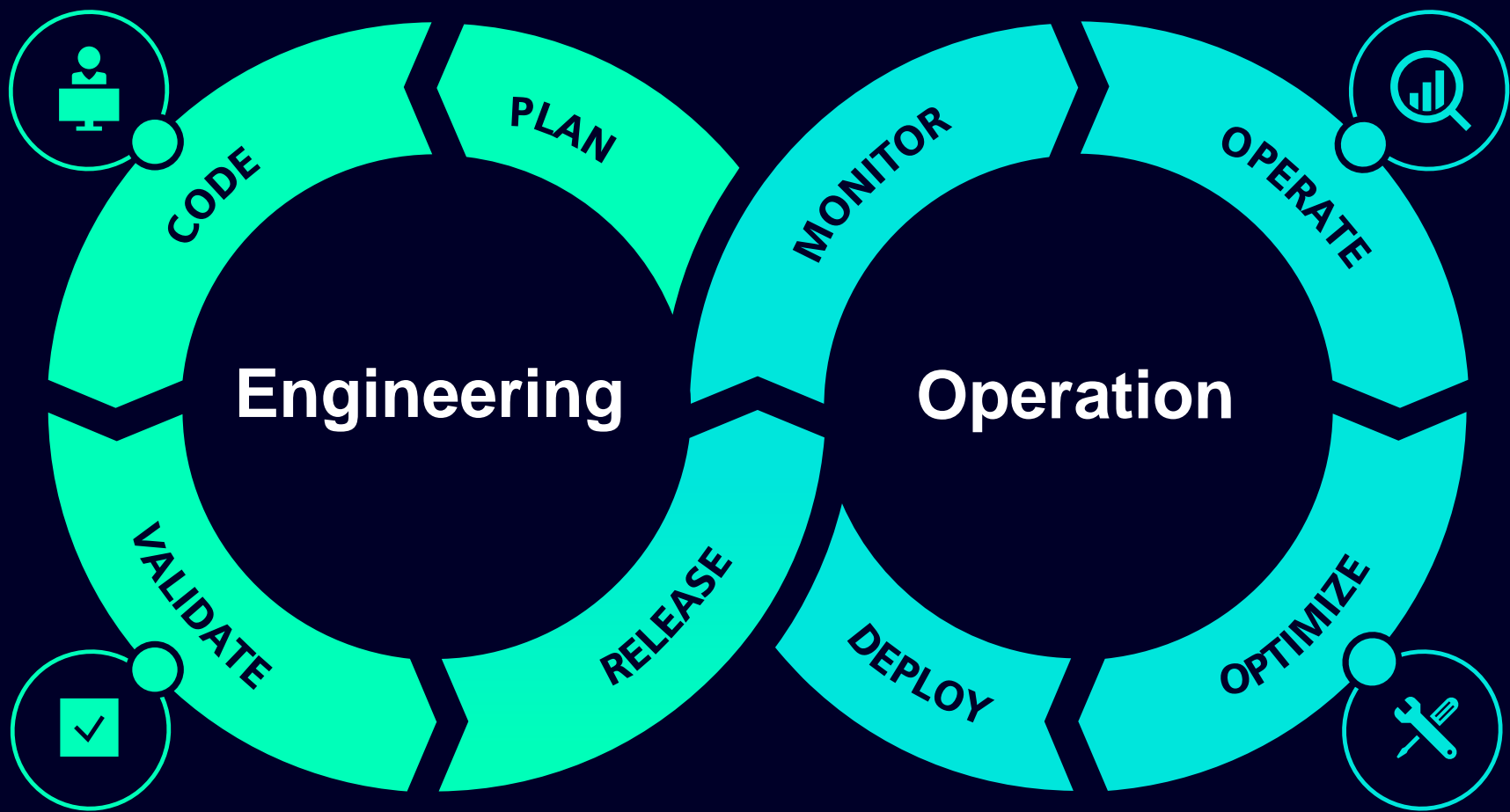
A dark, blue-tinted photograph of an industrial robotic arm in a factory setting. The arm is the central focus, with various joints and components visible. The background shows a blurred industrial environment with metal structures and cables.

We make AI
industrial-grade

SIEMENS



**I am your
Industrial Copilot.**



Engineering

Operation



SCHAEFFLER

Messzelle

MESSTECHNIK

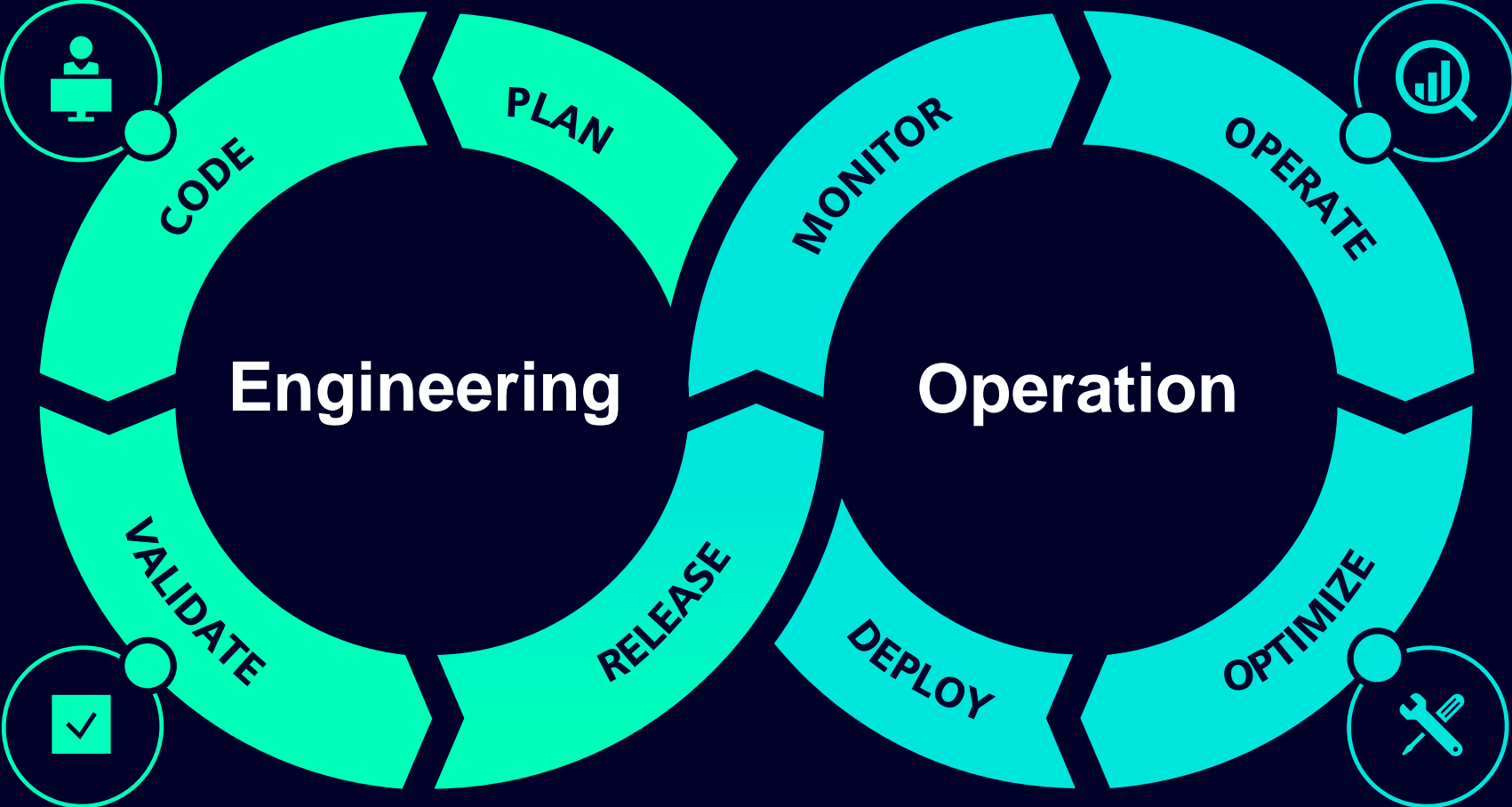
00000000

SCHAEFFLER

SIEMENS

Siemens Industrial Copilot

Code at the press of a button




- Hardware Configuration
- PLC Engineering
- HMI Engineering
- Code Testing
- Ask Docu

Industrial Copilot

Completed Tasks



Hi! How can I help you today?

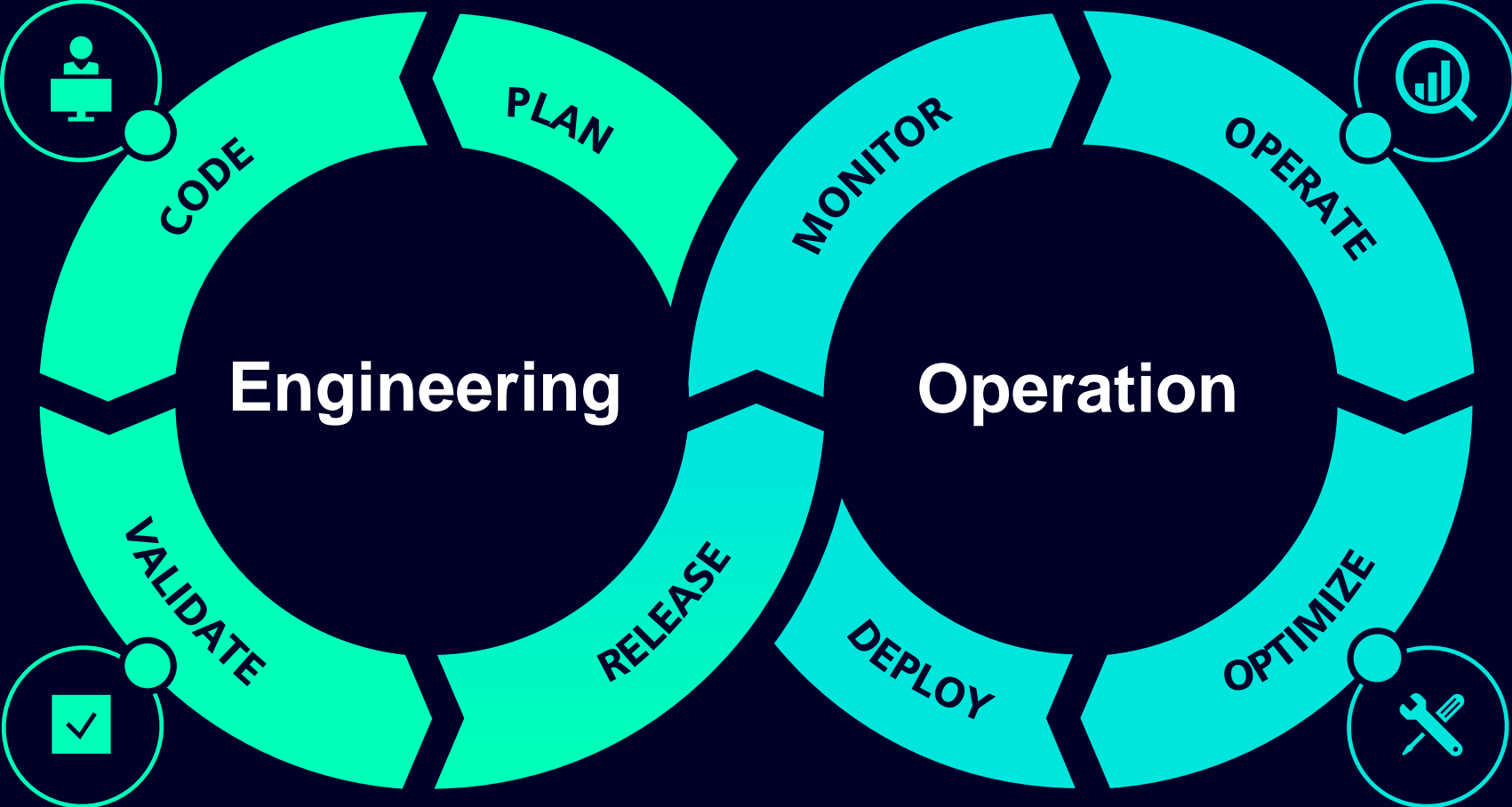
Hi! 

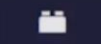


Hi! Is there anything you want to do?



Siemens Industrial Copilot
Supporting maintenance staff





Machine M...



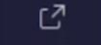
Knowledge



Configurati...



Dialogue



Mobile

Dialogue

Machine **schaeffler** ▾


Language **English** ▾

Engine **GenAI-Dyn...** ▾

Clear

Import

Write your message

A hand in a light blue shirt sleeve reaches towards a dark, industrial robotic arm. The background is a blurred factory floor with blue lighting. The text is overlaid on the center of the image.

Siemens Industrial Copilot
**Giving automation experts
superpowers**

SIEMENS

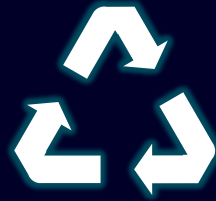
Simply automate



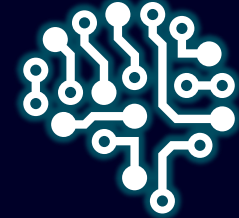
siemens.com/
press/sps23



Industry can now automate
much more easily
with Siemens



Siemens is driving a sustainable
circular economy



Siemens is making
**artificial
intelligence**
Industrial-grade

Simple motion integration

Advancing TIA and
Industrial Operations X

Resource-efficient processes

Fulfillment of legal
requirements

Modular apps

Generative AI