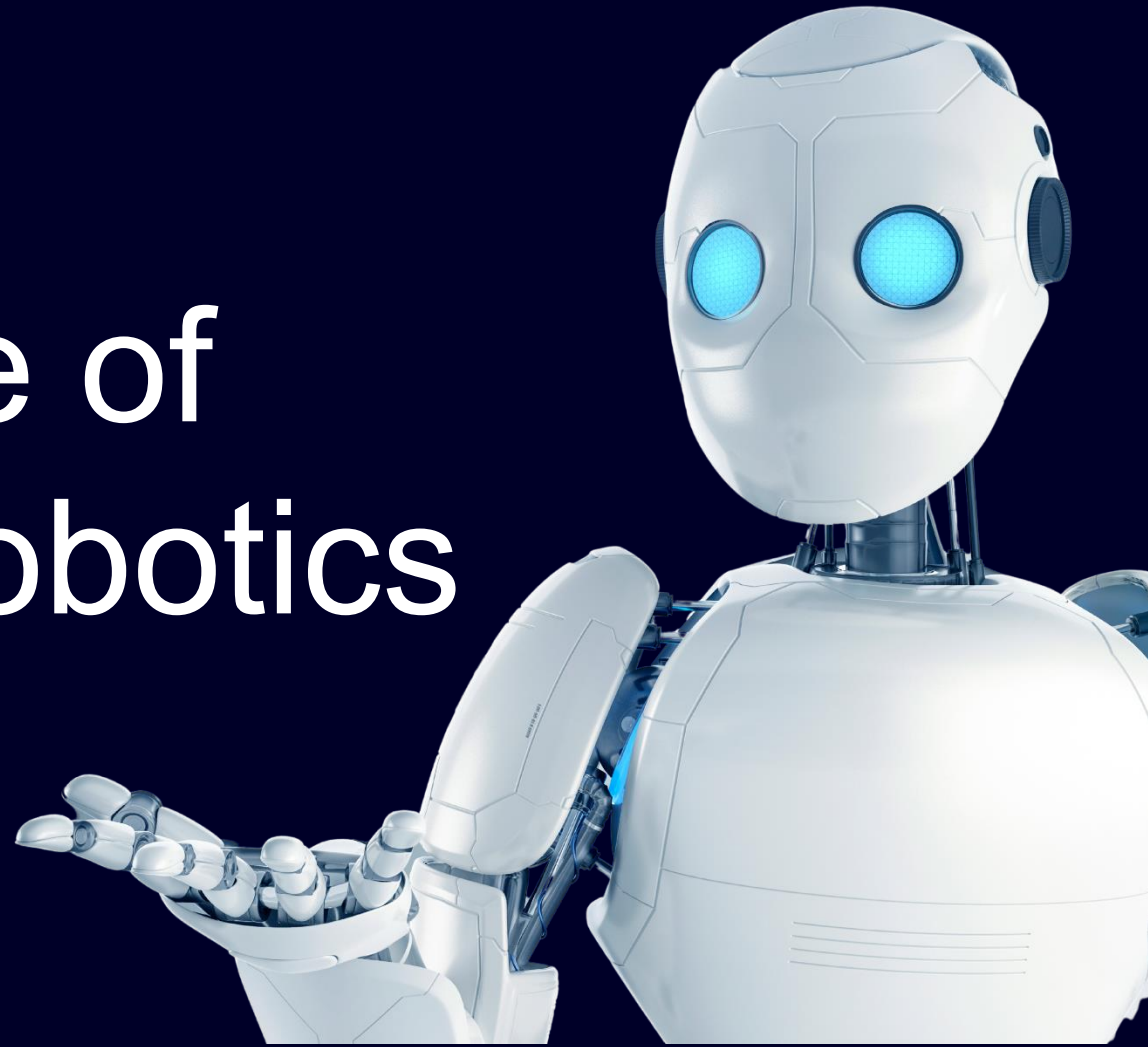


# Shaping the Future of Automation and Robotics

Dr. Horst J. Kayser  
CEO Siemens Factory Automation



**SIEMENS**

# We are experiencing the dawn of next-level robotics through Physical AI

## Robotics visionaries see huge potential



Jensen Huang

“Everything that moves will be robotic someday, and it will be soon.”

“Robotics is a multi-trillion-dollar opportunity.”



Satya Nadella

“AI & Robotics are primed to reshape our world... ushering in a new wave of progress in business and society.”



Elon Musk

“Optimus [humanoid] ultimately will be worth more than the car business. Worth more than FSD.”

## Market potential worth trillions of USD



~\$2 trillion worth of labor replacement with roughly 63% in Warehousing and Manufacturing, representing a replaceable workforce of ~156 million FTE



\$24+ trillion global revenue opportunity equally allocated to household and manufacturing applications

## Entities are putting skin in the game



Humanoid company evaluated at \$39 billion without having a buyable product



Building robotics portfolio through M&A and funding (e.g. ABB robotics \$5,4 billion/Agile Robotics/Skild AI/ Boston Dynamics/AutoStore)



Government tailwind: Prioritized embodied AI supporting it with a \$138 billion innovation fund.

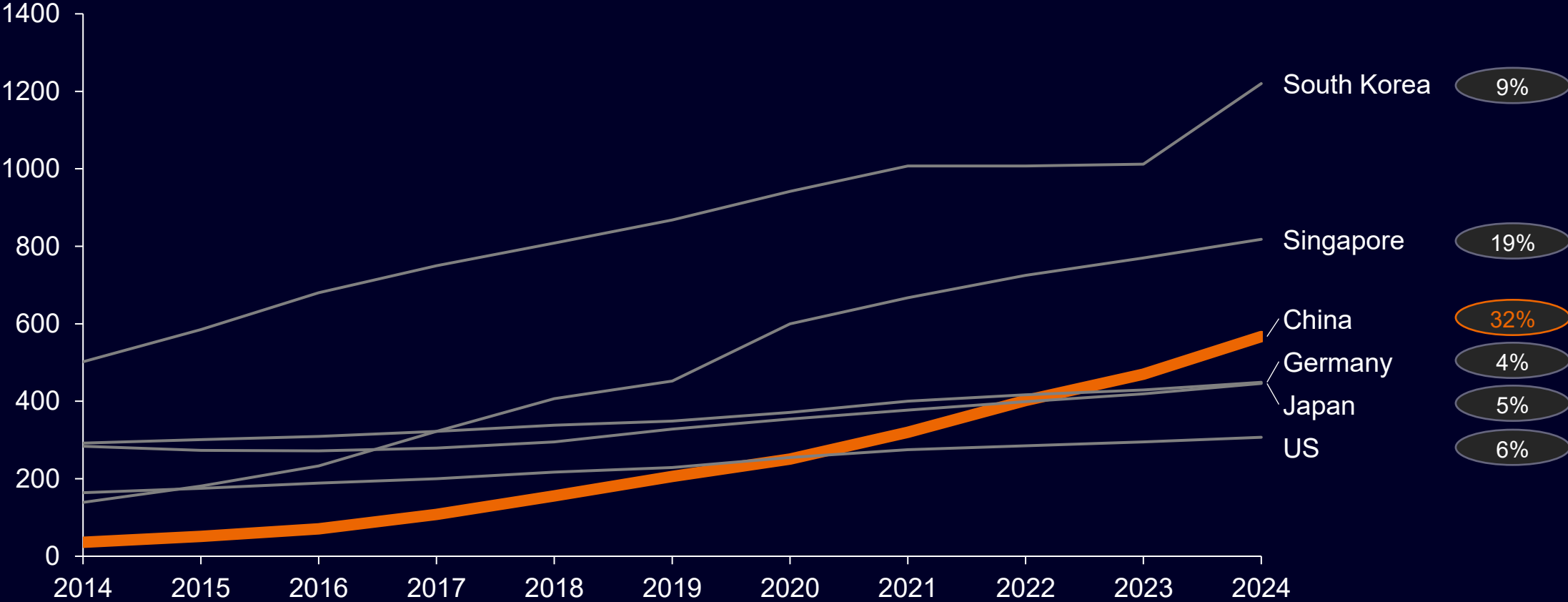


Celebrated the deployment of its 1 millionth robot mid 2025

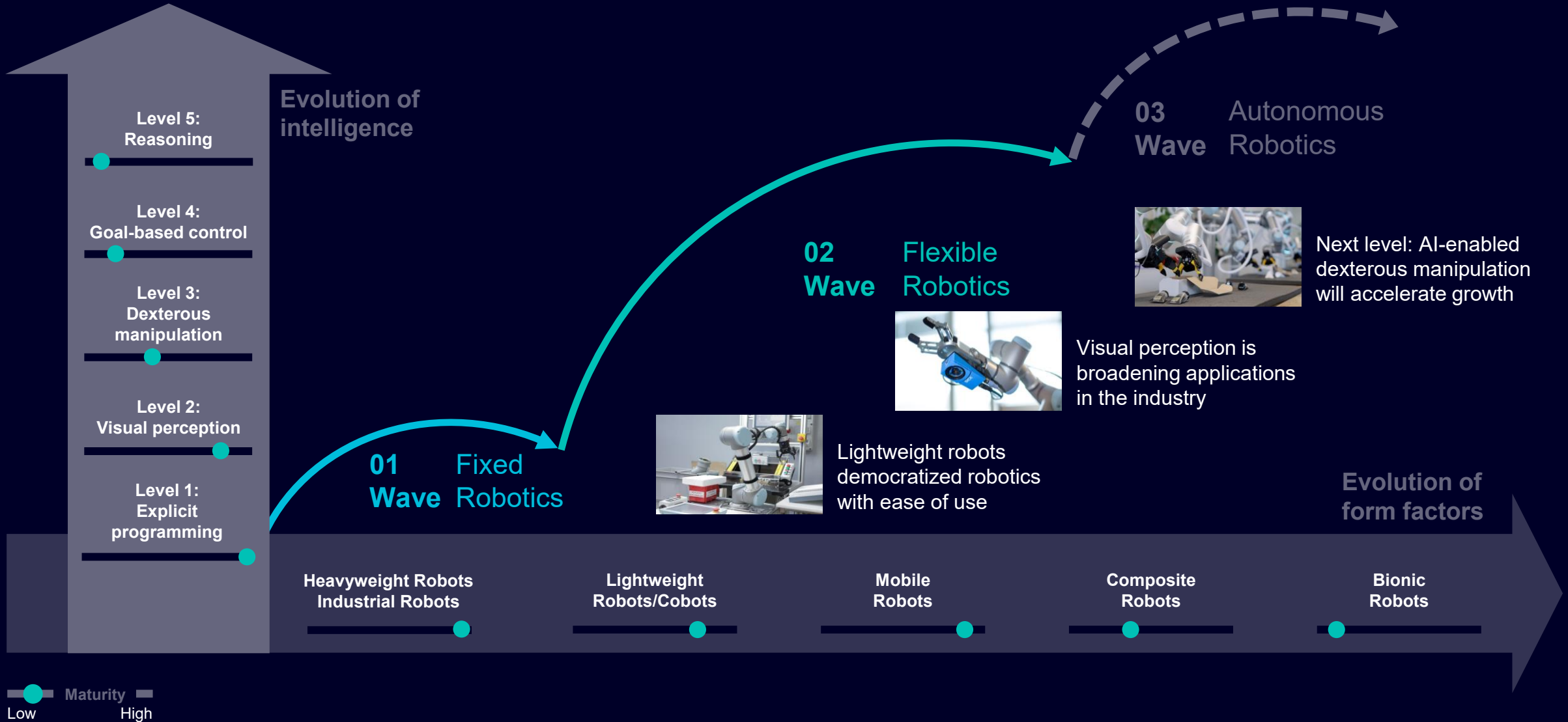
# Robotization is progressing across the globe

China is leading the growth and increasing the automation level significantly

### Robot density per 10k manufacturing workers



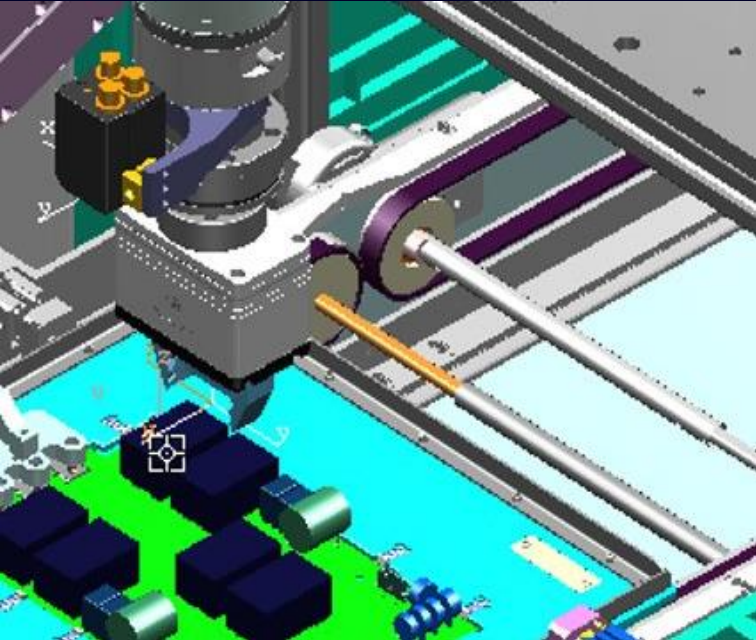
# Robotics capabilities are expanding along both major dimensions: Physical intelligence and versatility of form factors



# Siemens Factory in Erlangen rapidly increasing robotic automation

TCO is still a major issue

## THT Assembly in electronics production Engineering



**Offline engineering:**  
Tecnomatix

**PLC Engineering:**  
TIA Portal

## Market potential worth trillions of USD Runtime



**Arm and controller:**  
Universal Robots

**PLC:**  
SIMATIC CPU1500

## Key considerations

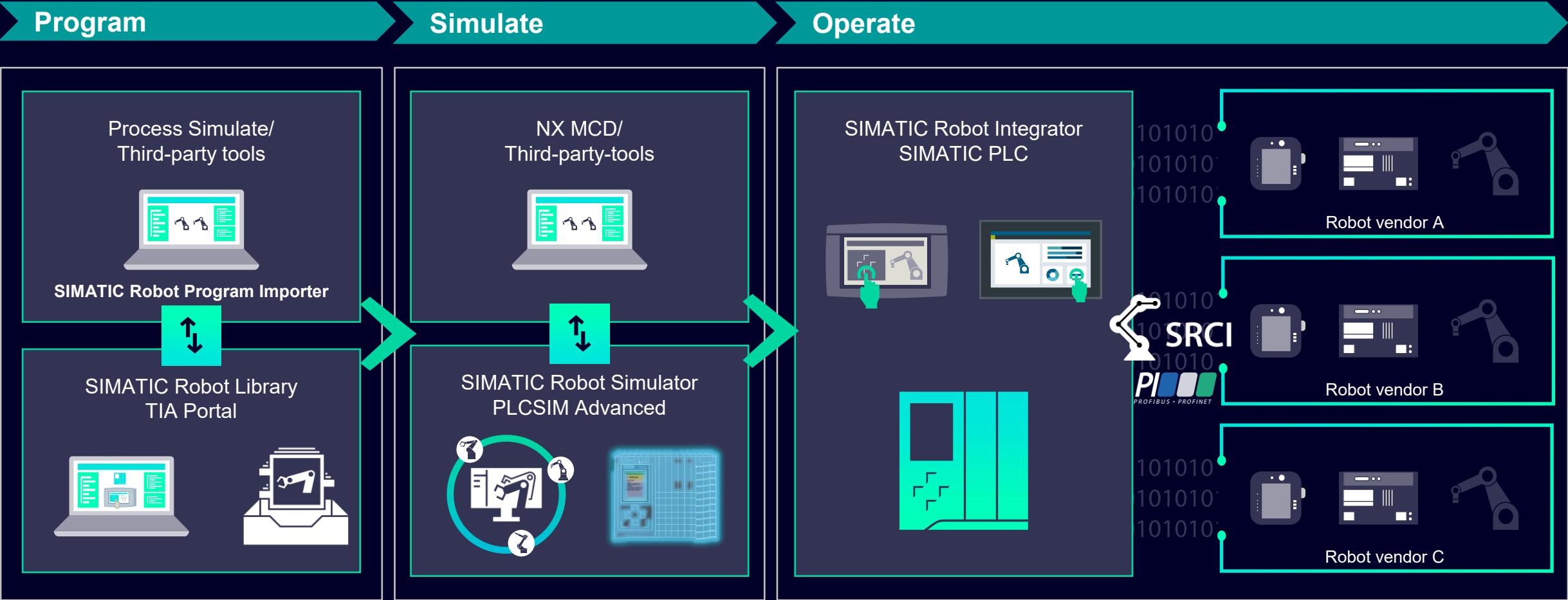
Quick robotization of the factory shopfloor with CAGR of over 25%

Year	Value
1	10
2	13
3	15
4	21
5	33
6	52
7	61
8	75
9	85
10	95
11	104

- THT assembly
- Component assembly
- PCB handling
- Srew-driving


































- > Focus on previously manual tasks increasingly requiring dexterous manipulation
- > External cost of integration/engineering of a cell can go up to 400k EUR

# Scaling robotics with SRCI using the Siemens automation platform

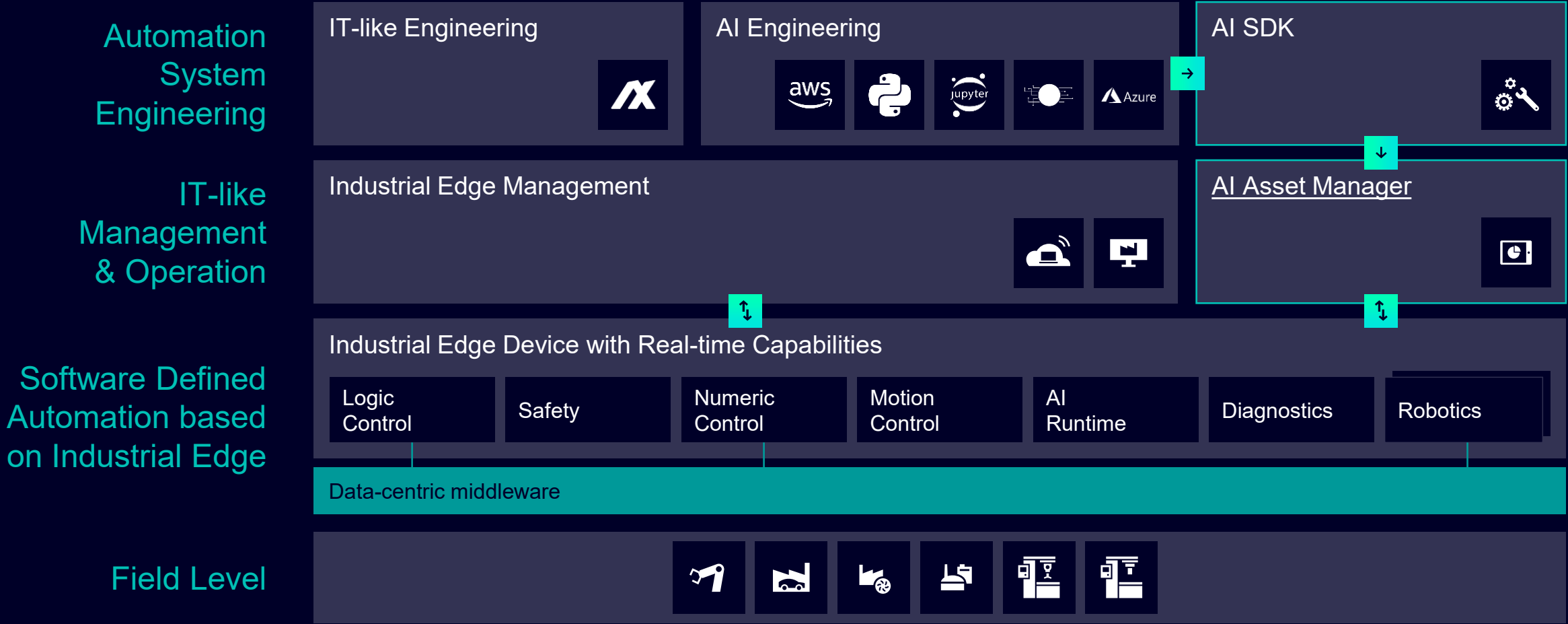


SRCI: = Standard Robot Command Interface  
 NX MCD = NX Mechatronics Concept Designer

# We are happy to support a growing ecosystem of partners in robotics around our SIMATIC automation platform

Current Partners							
COMAU	FAIRIND	 <b>KAWASAKI</b> Robotics	<b>KUKA</b>	<i>STÄUBLI</i>	<b>JAKA</b>   节卡	 <b>UNIVERSAL</b> ROBOTS	<b>YASKAWA</b>
	 	 			 		
<b>ABB</b>	<b>FANUC</b>	<b>EPSON</b> EXCEED YOUR VISION	 <b>DOBOT</b>	<b>DUCO</b> 多可	 <b>HUAYAN</b> ROBOTICS	 <b>MITSUBISHI</b> ELECTRIC	 <b>TM</b> ROBOT
	 	 	 	 	 		
					 Broad Release	 Limited Release	 In Progress

# Future Software-defined Automation architecture combines Control, Motion, Robotics and AI Runtimes



# Let's shape the Future of Automation together!

