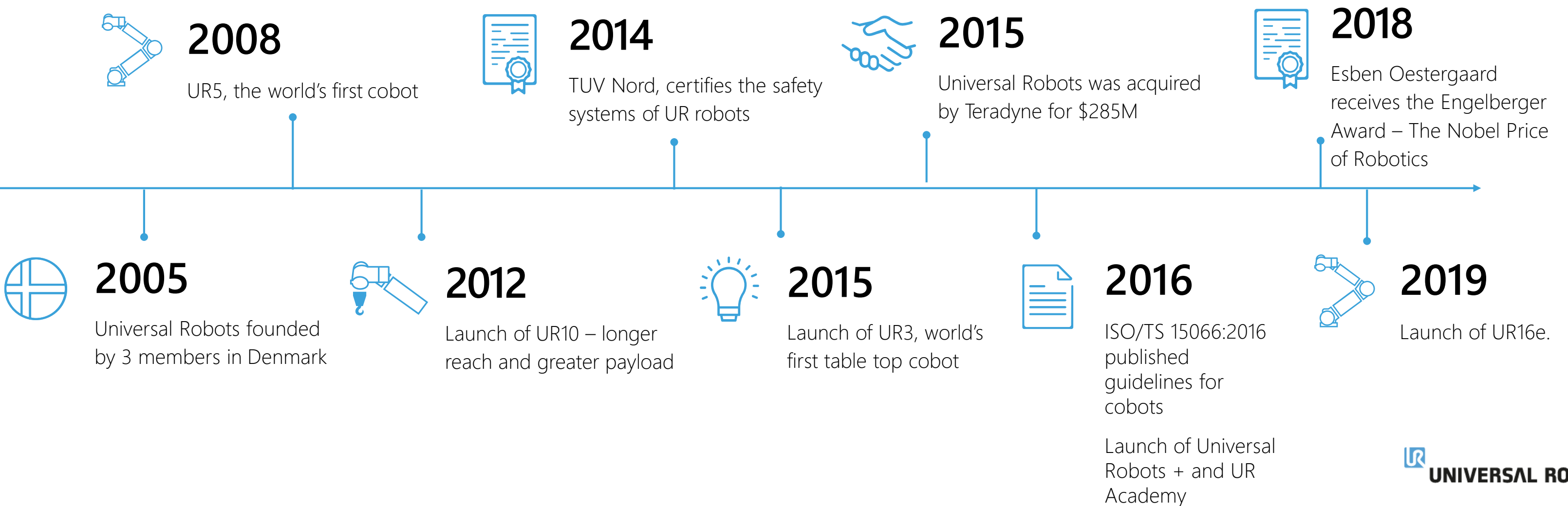


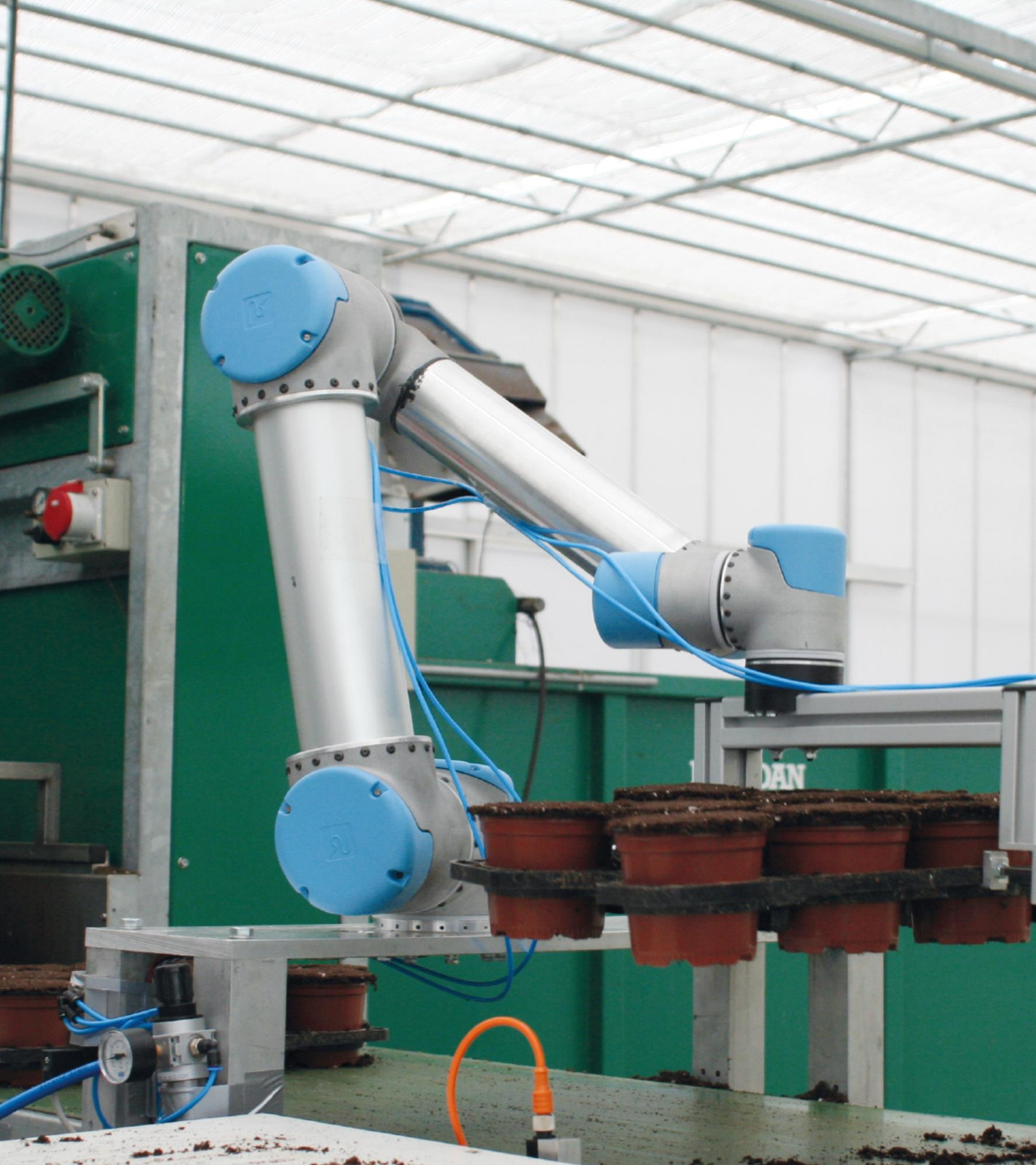
UNIVERSAL ROBOTS

Empowering the industry through
collaborative robots

FROM IDEA TO TRAILBLAZER

of collaborative robotics

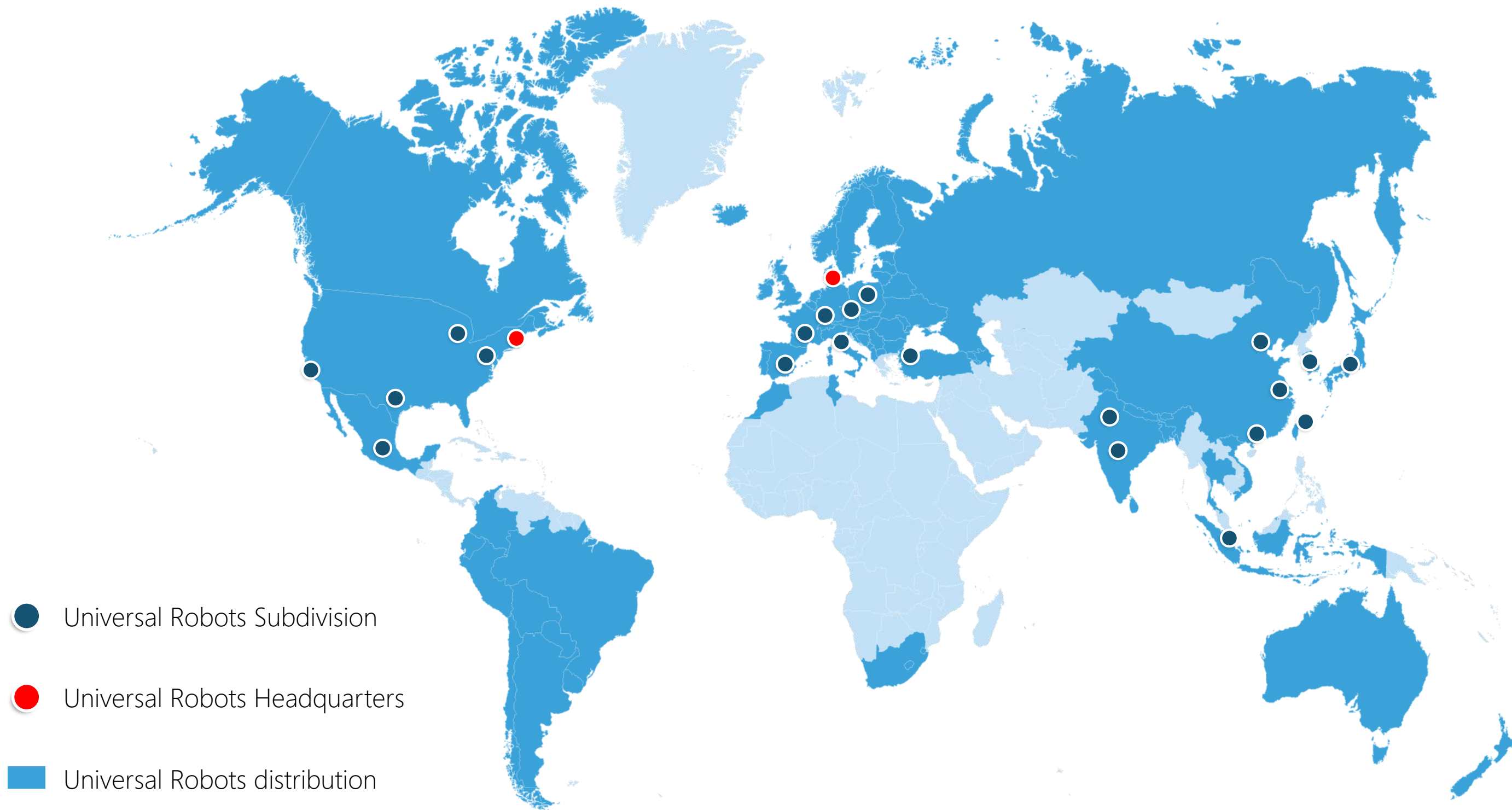






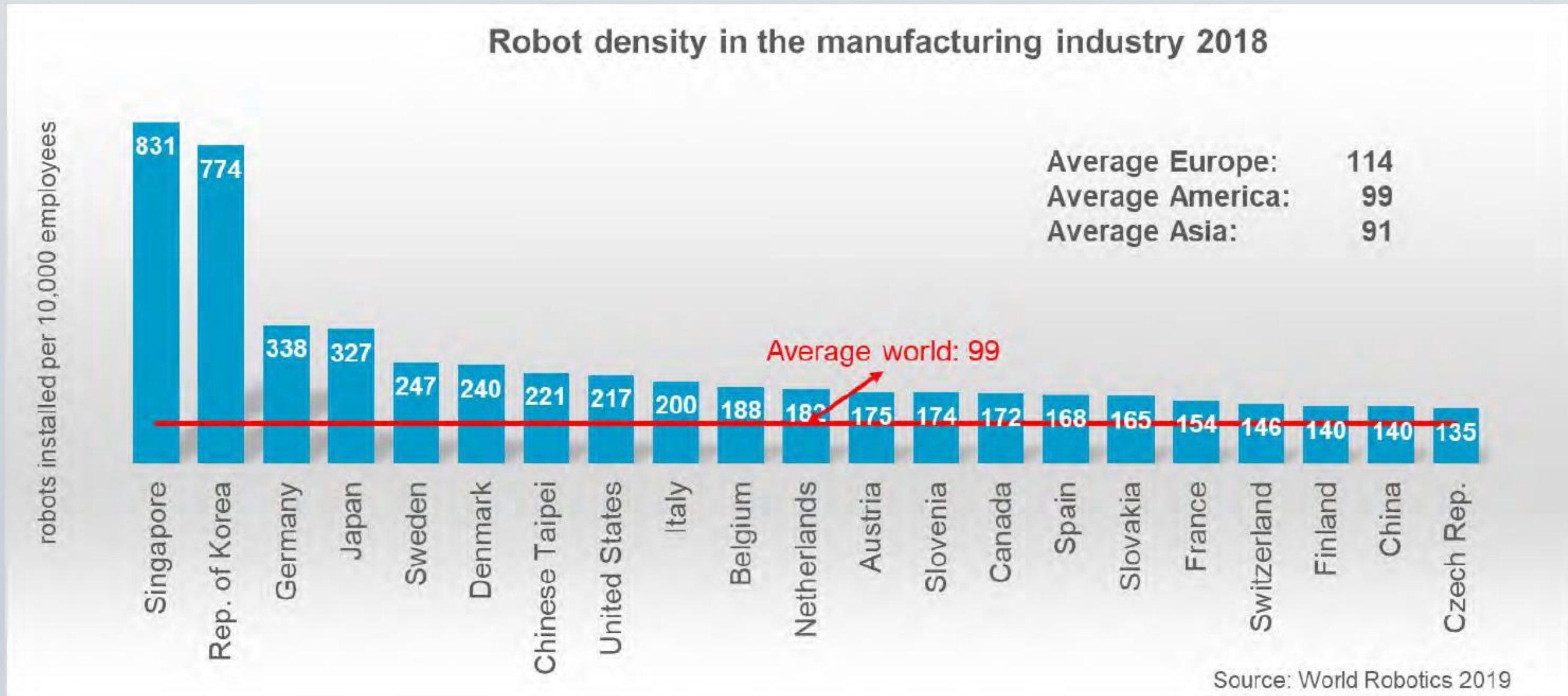
THE WORLD'S FIRST COBOT

A UR5 model, installed in 2008
at Linatex, has been operating
trouble-free ever since.

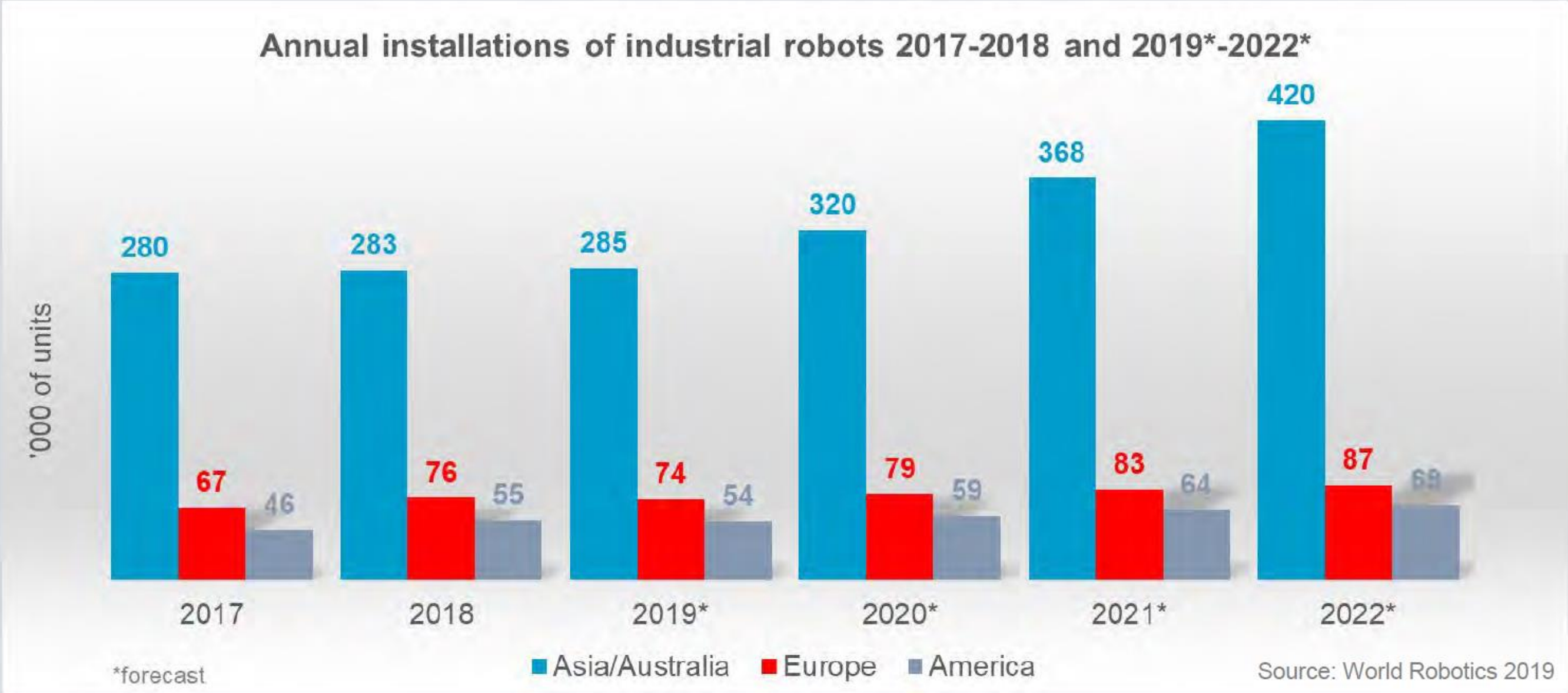


- Universal Robots Subdivision
- Universal Robots Headquarters
- Universal Robots distribution

Highest Robot Density in Singapore - lowest Average in Asia



Asia Region the Growth Engine



WHERE ARE WE HEADED?



- Robotter har øget omsætningen med 20%
- 8% flere medarbejdere
- Øget gennemsnitslønnen med 1%



WHERE ARE WE HEADED?

The danish robotindustri is estimated to triple in size and reach sales of 52 Mia. DKK by 2025. The market for collaborative robots will increase dramatically.

- Employment within the robotindustry will increase from 8.500 today to 25.000 by 2025 in Denmark
- A yearly growth of 30% is expected globally for collaborative robots
- Collaborative robots is currently 2% of all industrial robots in Denmark. It is estimated to reach 25% at the end of 2025.



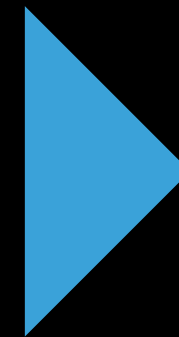
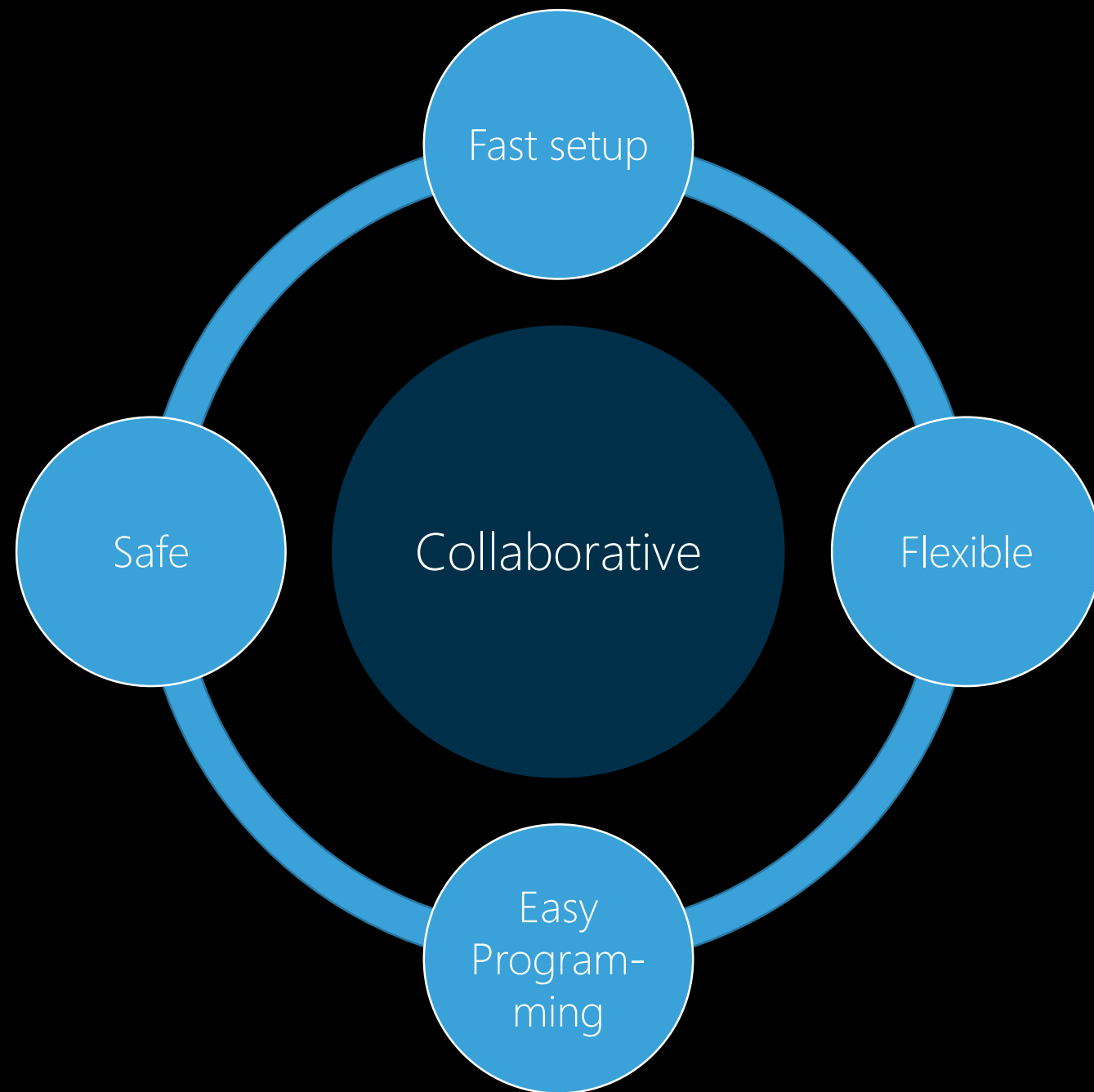
WHERE ARE WE HEADED

SMART PRODUCTION

- Modular solutions – ease of use & high flexibility and cost saving
- Collaborative robots – a new standard in the industry – A niche but growing
- Humans and robots together increase profitability & technological development.



WE SET THE STANDARD FOR COLLABORATIVE ROBOTS



Fast Set-up
Flexible Deployment
Easy Programming
Safe

INDUSTRIAL ROBOTS

Difficult set-up



High programming expertise
needed



Fixed installations



Extensive space requirements



Need a safety fence



Numerous
additional costs



V S.

COLLABORATIVE ROBOTS



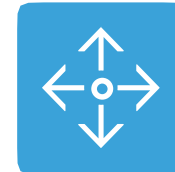
Fast set-up



Anyone can program



Flexible deployment



Limited space requirements

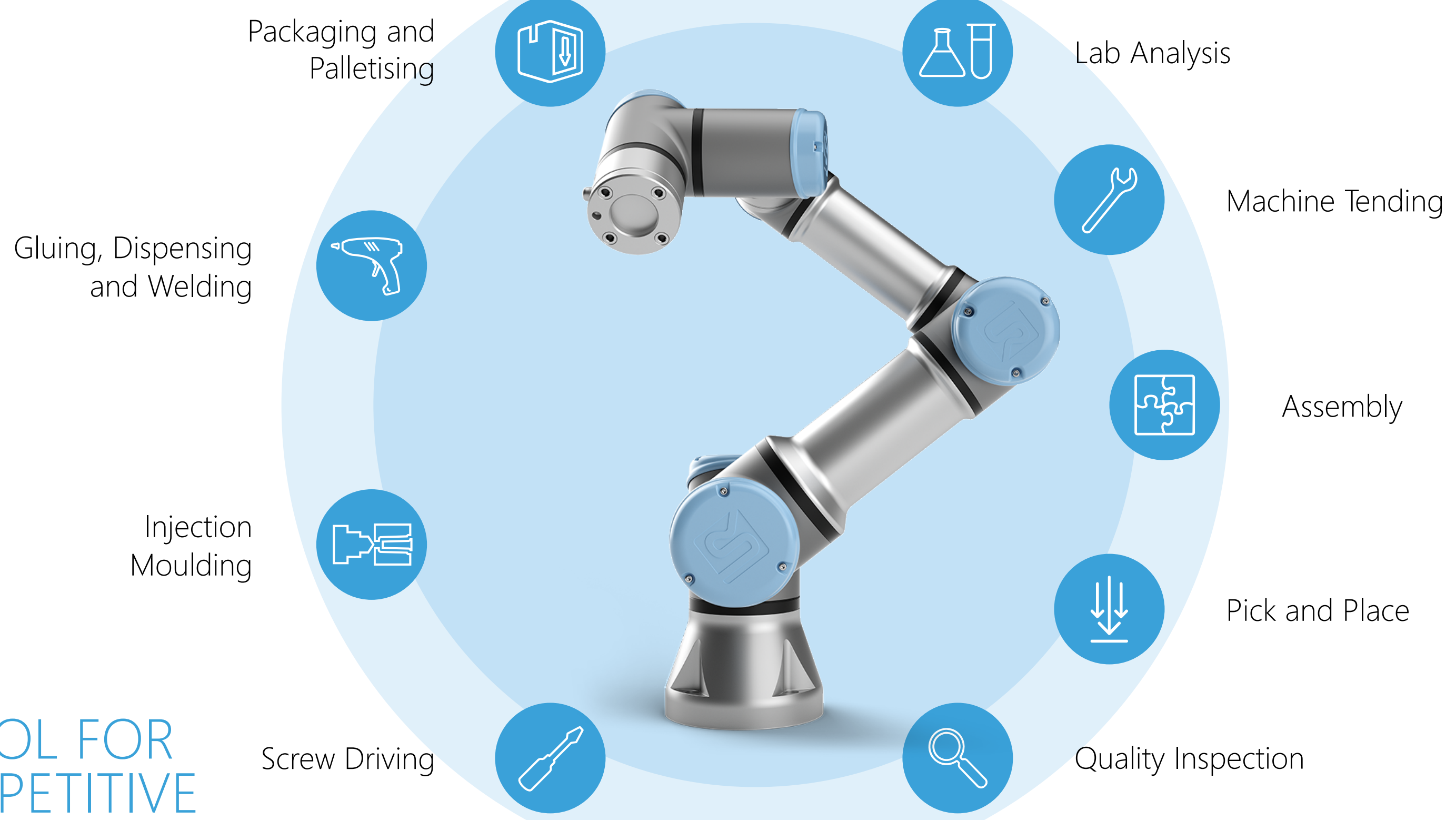


Collaborate side-by-side with
humans



Cost effective with fast
payback

A TOOL FOR COMPETITIVE ADVANTAGES





THE ECOSYSTEM

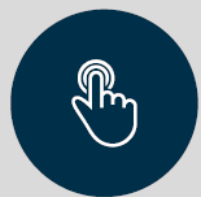
A unique group of technologies which creates a base upon which other applications, processes, content, and even technologies can be developed and delivered.

Application Builder

Everything you need to start building applications with Universal Robots.

Three applications available at launch, with more coming very soon!

Select your application



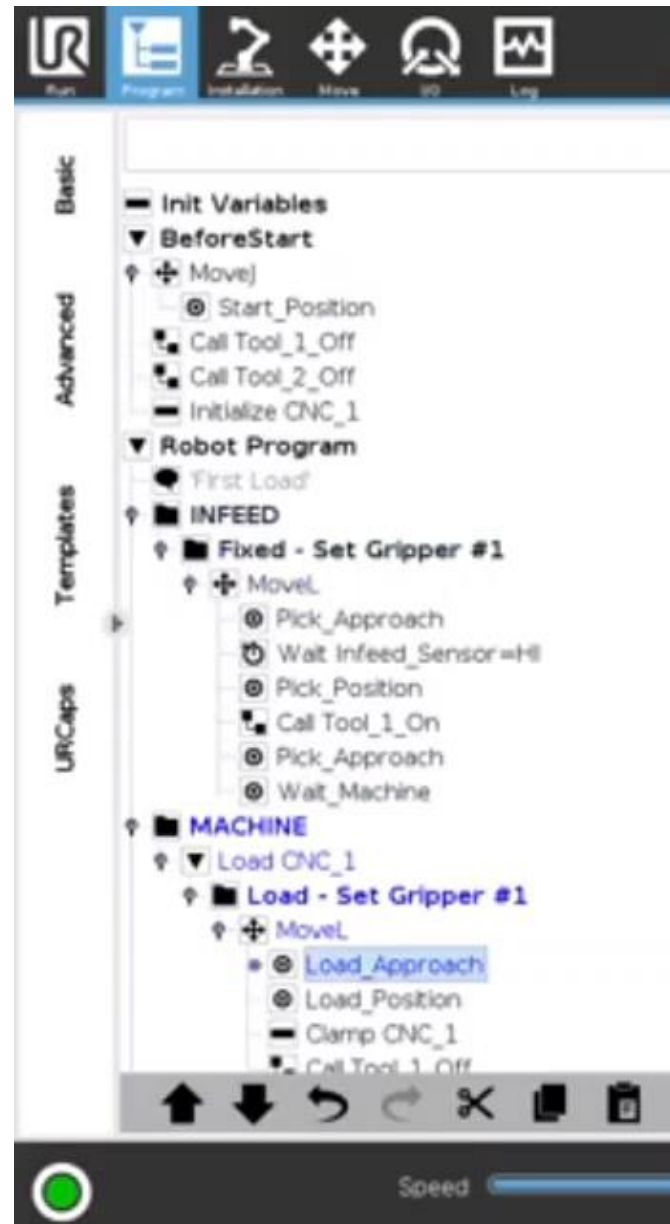
MACHINE TENDING



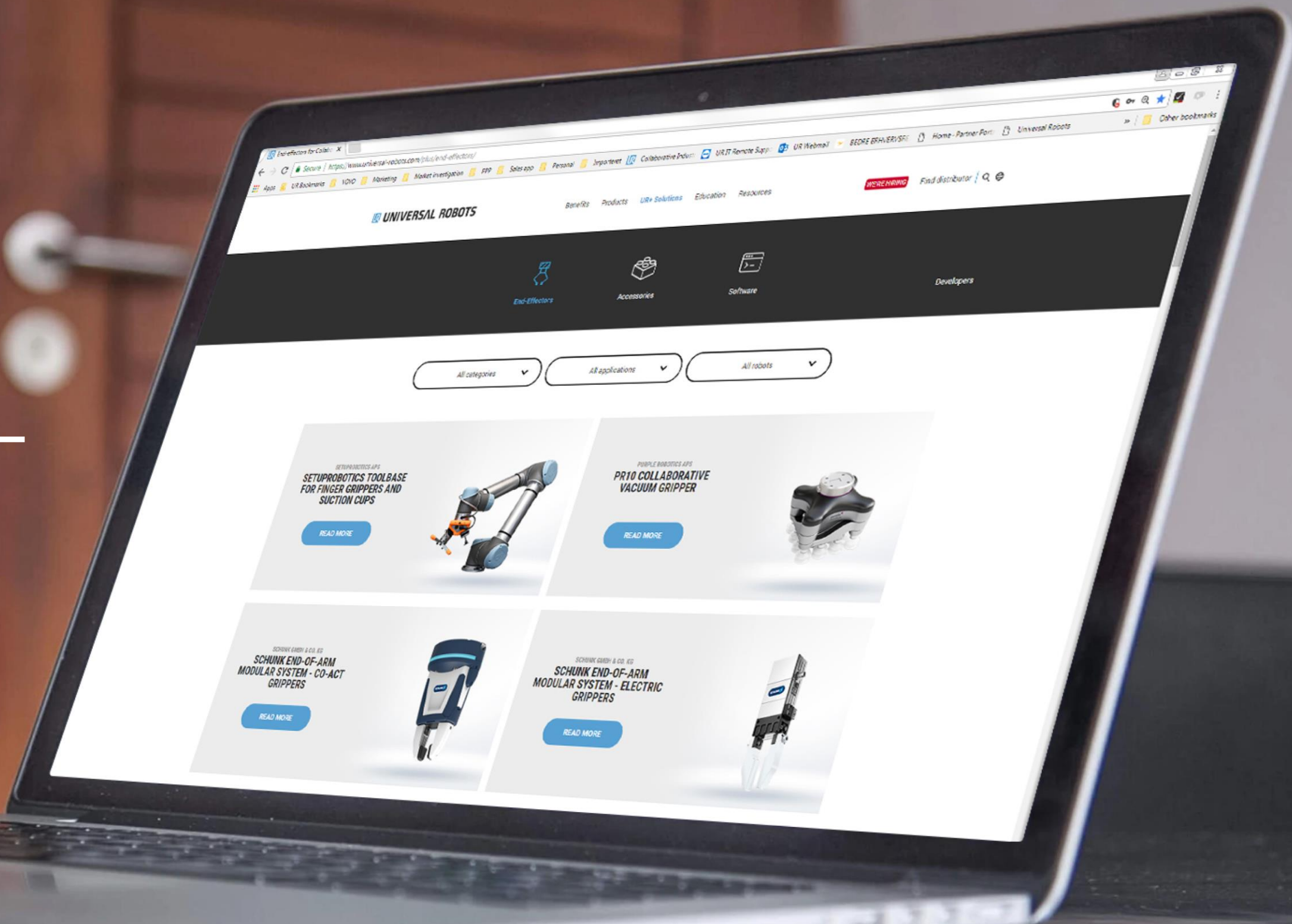
ASSEMBLY



PACKAGING

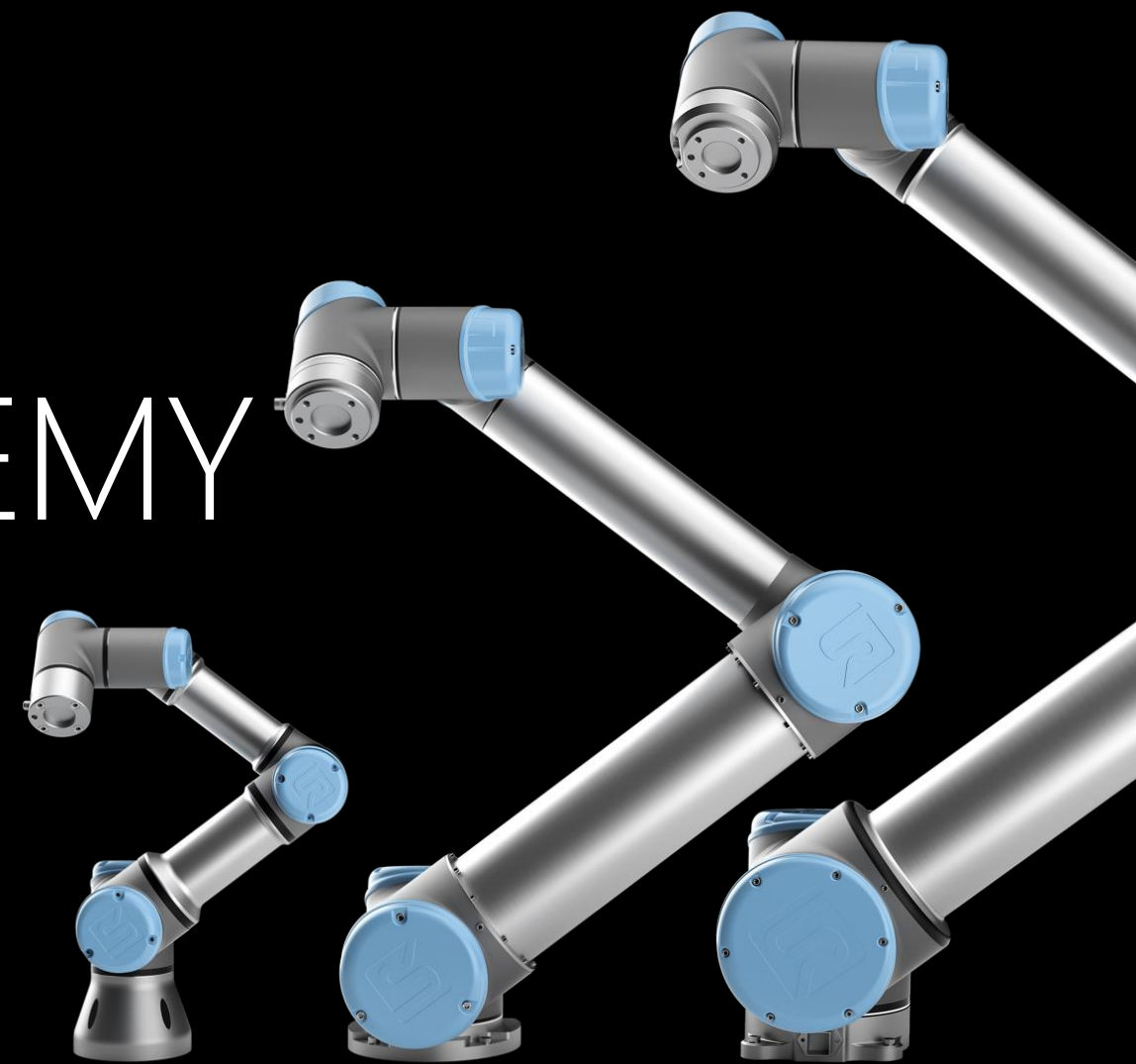


UNIVERSAL ROBOTS+



UNIVERSAL ROBOTS ACADEMY

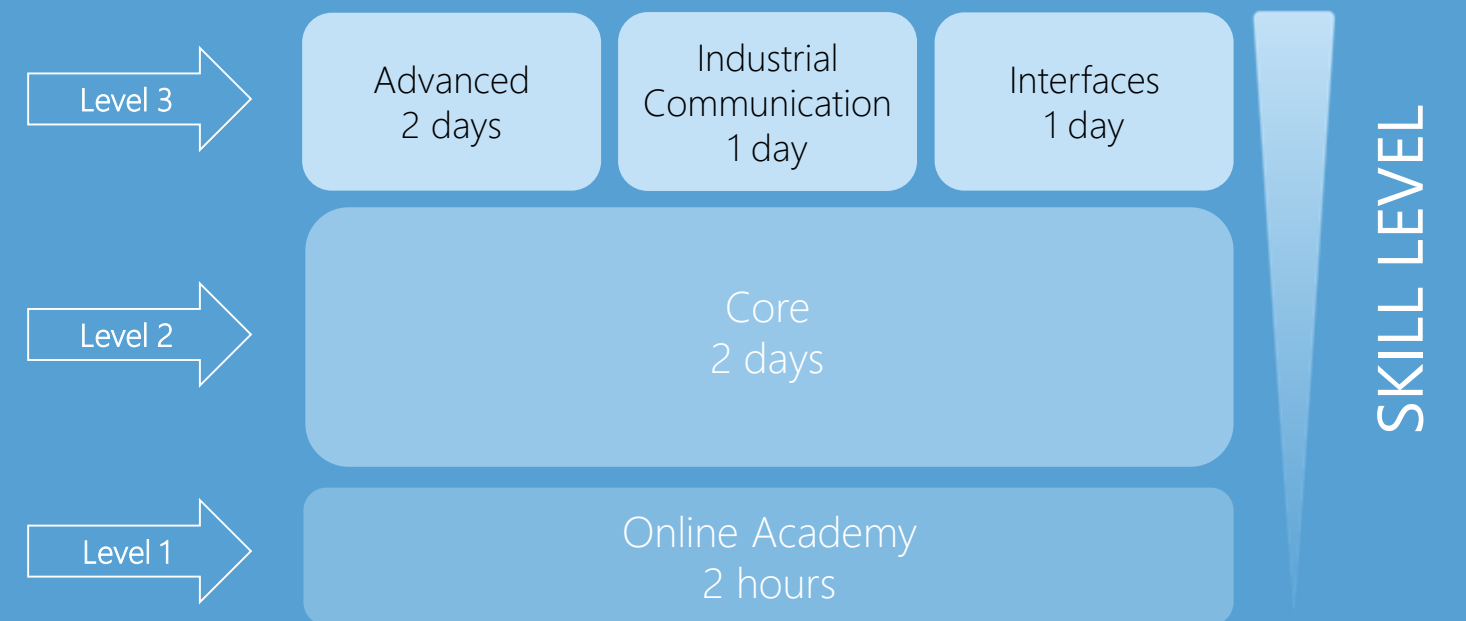
Become a cobot programmer in 87 minutes



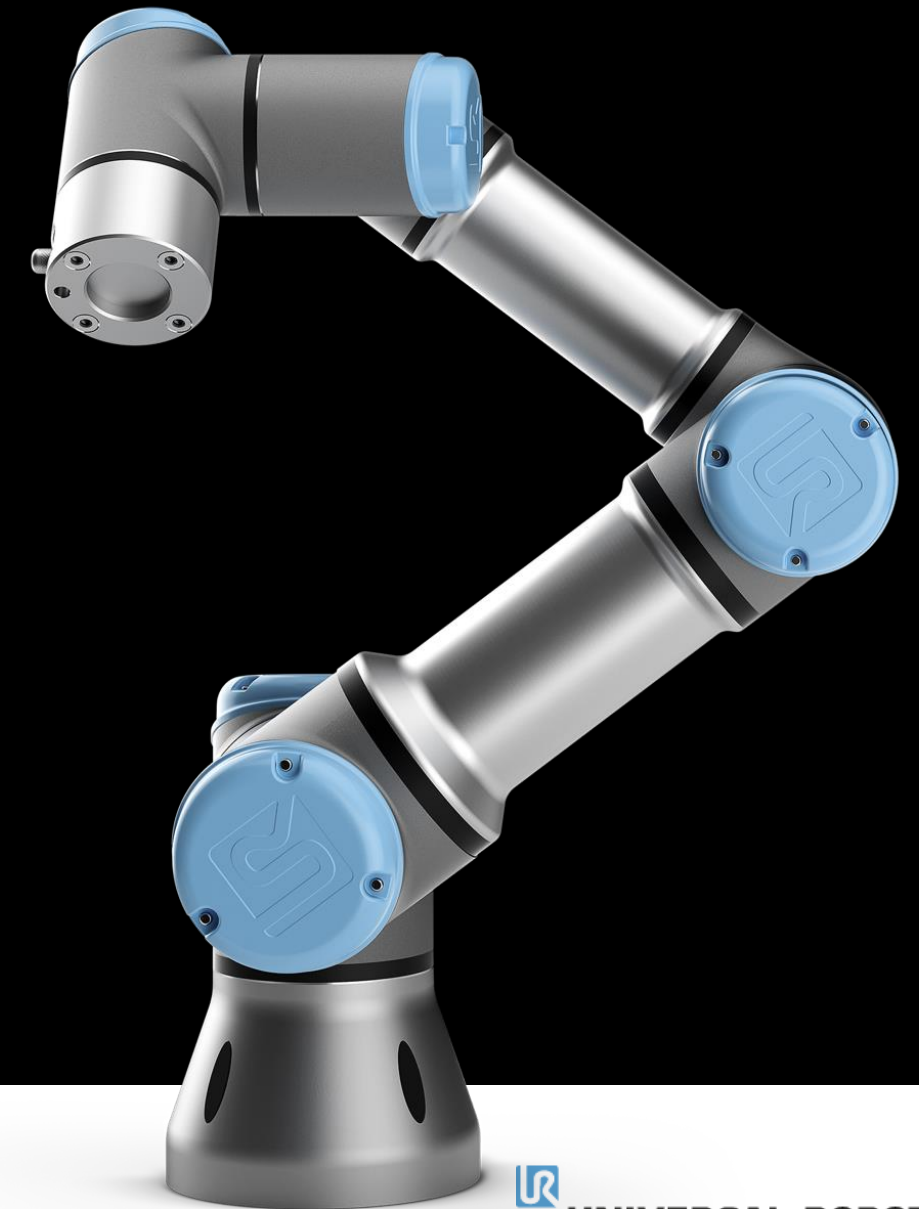
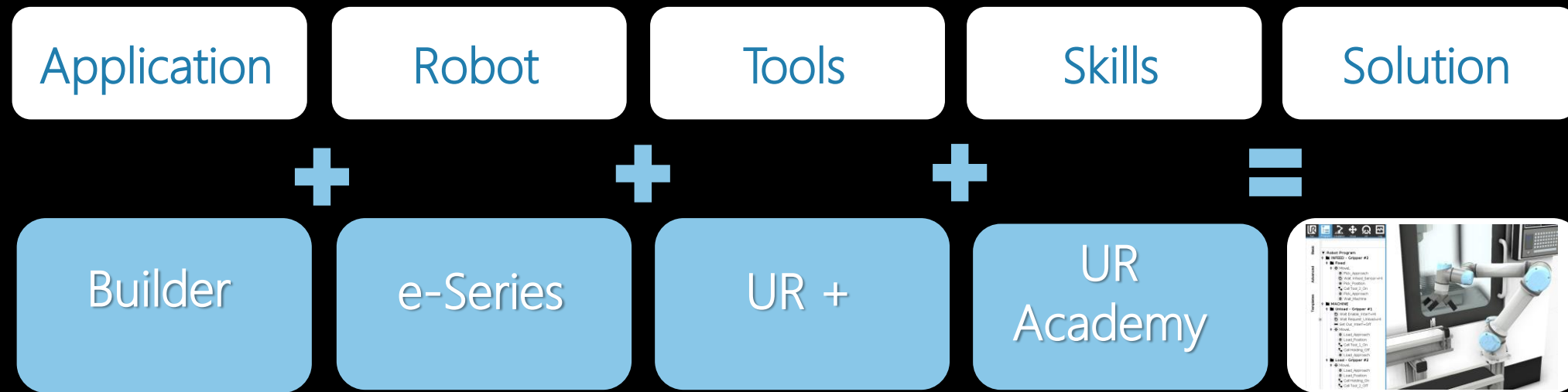
<https://www.universal-robots.com/da/plus/>



E-LEARNING AND IN-CLASS TRAINING COURSES

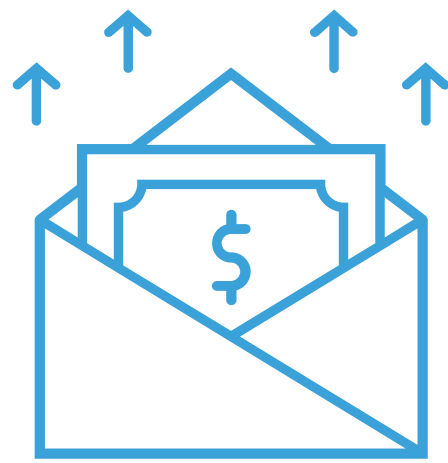


OUR COMPLETE UR ECOSYSTEM

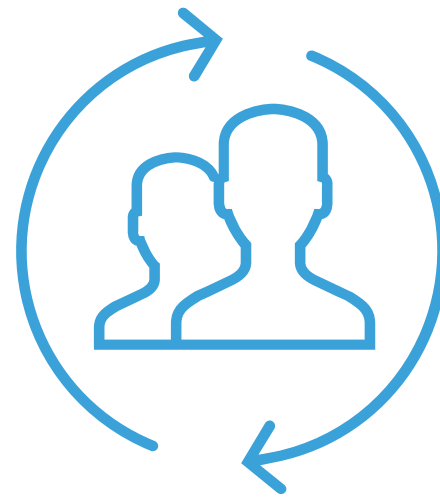


THE CHALLENGES

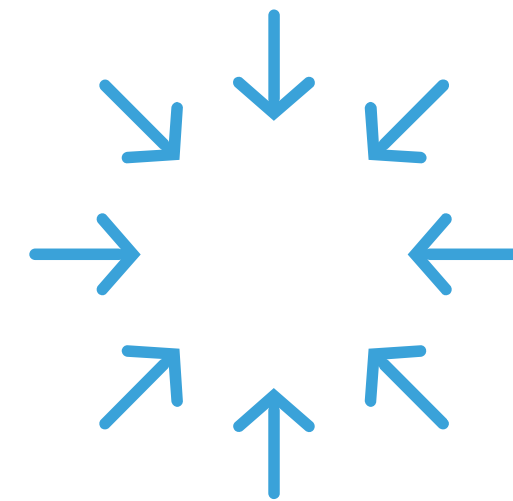
of today's market environment



Rising minimum wages
& training costs



Skills shortage
& high turnover



Global competition

The image shows two Universal Robots robotic arms in a kitchen environment. The arms are white and black, with blue accents. They are positioned above a kitchen counter. The counter has various items on it, including a green bottle of Noilly Prat, a glass of red liquid, a bowl of red tomatoes, and a small pot on a stove. The background is a dark wall with a shelf holding several kitchen tools like a spatula and a spoon. The lighting is dramatic, with blue and purple hues.

AUTOMATE
ALMOST
ANYTHING



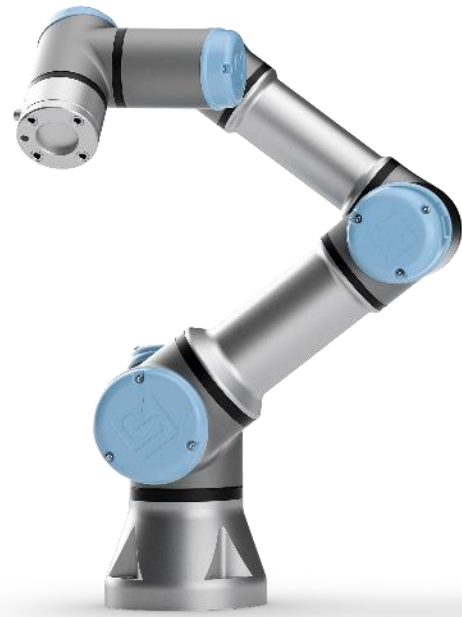
HUMAN-ROBOT
COLLABORATION
IS 85% MORE
PRODUCTIVE

than humans or robots alone

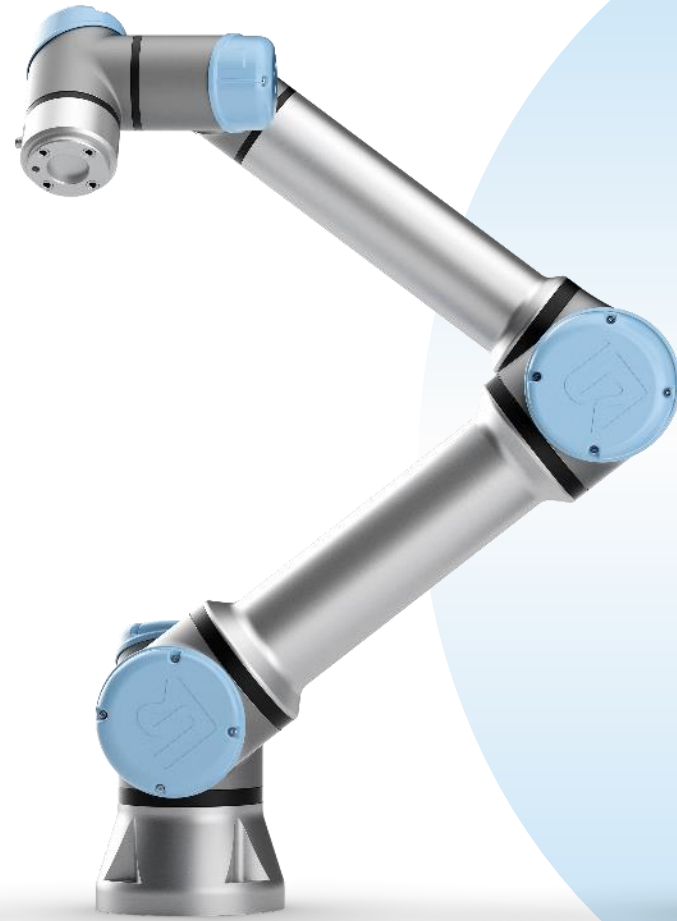
Source: MIT research data on Financial Times article "Meet the cobots: humans and robots together on the factory floor" on 5th May 2016

BUILT TO DO MORE

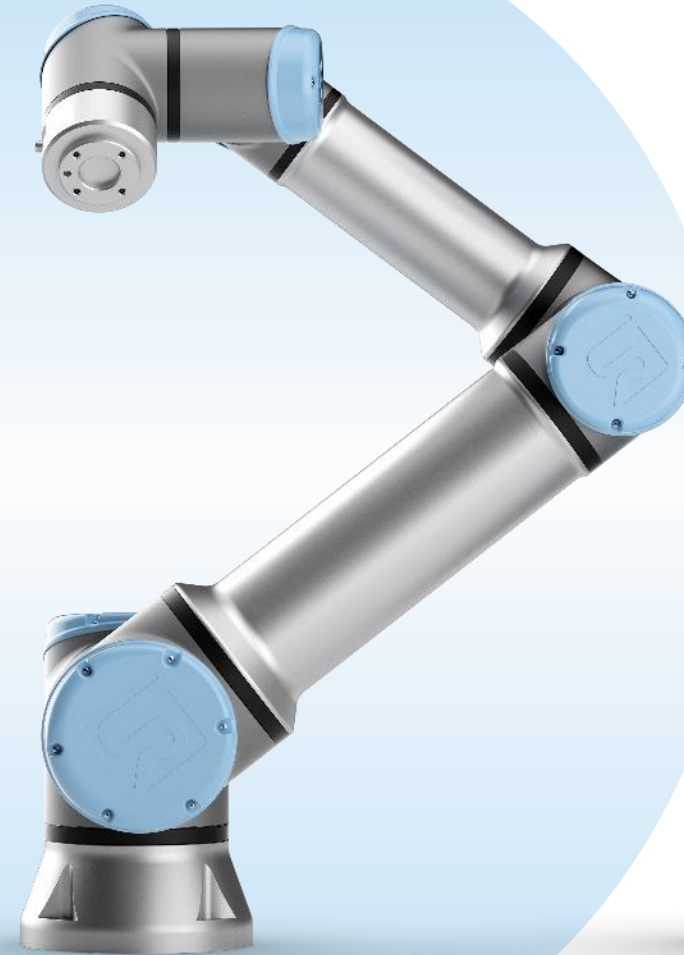
UR16e expands the Universal Robots product portfolio, adding a solution for **high payload applications**.



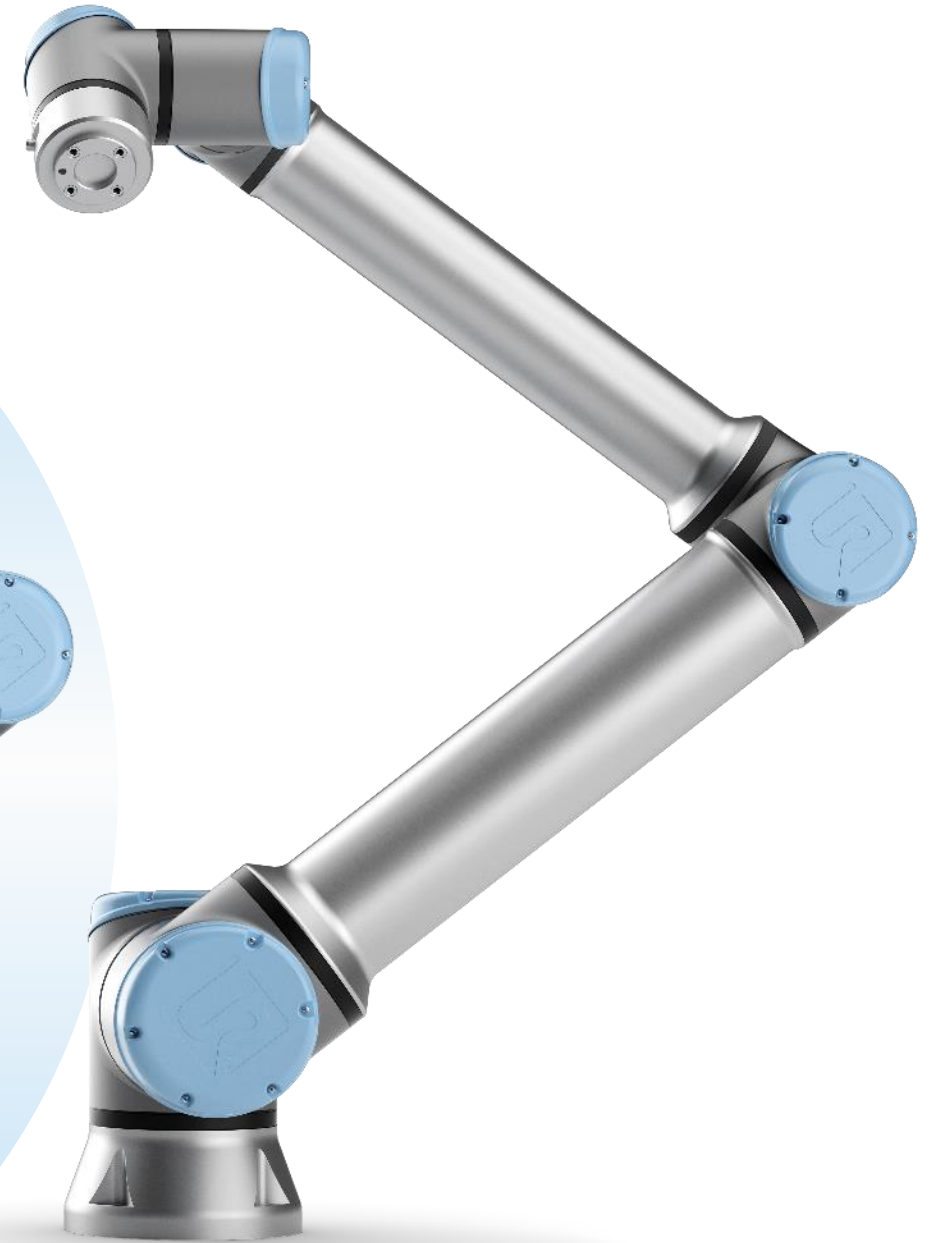
UR3e



UR5e



UR16e



UR10e

e-Series SPECIFICATIONS

	UR3e	UR5e	UR10e	UR16e
Payload	3 kg (6.6 lbs)	5 kg (11 lbs)	10 kg (22 lbs)	16 kg (35.3 lbs)
Reach	500 mm (19.7 in)	850 mm (33.5 in)	1300 mm (51.2 in)	900 mm (35.4 in)
Degrees of freedom	6 rotating joints			
Safety	17 configurable safety functions			
Certifications	EN ISO 13849-1, PLd Category 3, and EN ISO 10218-1			
Force Sensing, Tool Flange Accuracy	3.5 N	4.0 N	5.5 N	5.5 N
Pose Repeatability per ISO 9283	± 0.03 mm	± 0.03 mm	± 0.05 mm	± 0.05 mm
Typical TCP speed	1 m/s (39.4 in/s)			
IP classification	IP54			
ISO 14644-1 Class Cleanroom	5			
Noise	Less than 60 dB(A)	Less than 65 dB(A)	Less than 65 dB(A)	Less than 65 dB(A)
Operating Temperature Range	0-50°C			
Humidity	90%RH (non-condensing)			

Control box

IP classification	IP44
ISO 14644-1 Class Cleanroom	6
Operating Temperature Range	0-50°C
Humidity	90% RH (non-condensing)

Teach pendant

IP classification	IP54
Operating Temperature Range	0-50°C
Humidity	90% RH (non-condensing)

New Safety Features in PolyScope

- Stopping time
- Stopping distance
- Elbow monitoring
- Tool sphere monitoring
- Remote / local control



COLLABORATIVE ROBOTS

The future of manufacturing