

Hand in hand for tomorrow



CoLab

Robot Application Center

SCHUNK on Air

28.07



Explanation slide

FOR INTERNAL USE ONLY



Hand in hand for tomorrow

CoLab

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SCHUNK on Air

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Explanation slides to document background information in a readable format.

"Co" in CoLab stands for "cooperation"
→ Represents the collaboration between **SCHUNK** and customers and partners to develop automation solutions.

Customer materials related to CoLab

 Hand in hand for tomorrow

Feedback | Log in | Language 

No. 1 Products | Media center | Tools | Across areas

>> Product news <<

Quick selection

CoLab ▾

Alphabet A - Z ▾

Product navigation
Engineering and Industries
Automation cells
Lathe chucks
Rotary modules
Gripping modules
Linear modules
Robot accessories
Sensor system
Service
CoLab
ETP DPG-plus
ETP DPZ-plus

CoLab

Description
You can find all the documents related to the CoLab and its services here.

Accessories
Seal Kits
Shock absorber

Series-specific information
Advantages | Function | Applications | Documents | Multimedia | Service | FAQs | News | Archive

 [open all](#)

 [More sales documents \(1\)](#)

CoLab- Robot Application Center   

In short – CoLab Flyer

Here is the CoLab flyer + link.

What is a CoLab?

A space to ...

- test and evaluated automation equipment
- identifying and eliminating challenges of automation
- process development and optimization



What is a CoLab?

A space to ...

- test and evaluated automation equipment
- identifying and eliminating challenges of automation
- process development and optimization

Not just great components – but part of the solution

- Customers face the challenge of finding solutions for complex processes in the shortest possible time.
- During the planning and design phase, they are confronted with significant uncertainties regarding the selection of the right components.
- We continue to address these challenges through expert consultation provided by our field and internal sales teams.
- Theoretical designs have their limitations, and at a certain point, only an actual trial can provide clarity about the feasibility of an application.
- By offering the ability to conduct these practical trials, SCHUNK is not just a component supplier but a part of the solution expertise!



What is a CoLab?

A space to ...

- test and evaluated automation equipment
- identifying and eliminating challenges of automation
- process development and optimization

For standard products

- Achievable processing results with R-EMENDO products such as RCE, MRT, ...
- Testing the force impact of parallel finger grippers on customer products (e.g., unacceptable deformation)
- Validation of the process reliability of magnetic grippers
- Pre-validation of the 2D grasping system

For customer-specific solutions

• **Preliminary test**

For challenging or highly innovative customer processes with unclear solutions or many uncertainties. Collaboration between design and CoLab for pre-validation of potential solutions.

• **Final test**

Testing the unit after assembly and before delivery with the goal of identifying and resolving errors before commissioning at the customer's site. → Lower costs for us as no service deployment is required, better customer experience.



What are the Benefits?

You get ...

- live demonstration and training in the CoLab
- test documentation including hardware setup, approach and recommendations
- investment security



What are the Benefits?

You get ...

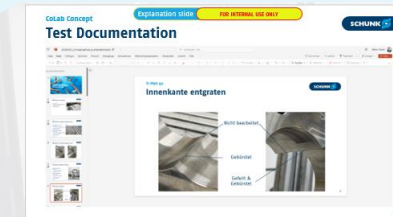
- live demonstration and training in the CoLab
- test documentation including hardware setup, approach and recommendations
- investment security

Live Demonstration

- After conducting the tests in CoLab, handover of the results during an on-site appointment at CoLab and demonstration.
→ knowledge transfer

Test Documentation

- If desired, detailed documentation of the test execution and process parameters can be provided.
- In 90% of cases, a video is created for documentation purposes.



Investment Security

- The pre-validation of the process ensures investment security for the customer by reducing technical risks.



Test Documentation

20250225_2_Pumpengehaeuse_entgraten(Kopie) X

Suche (Alt + M)

Ballier, Fabian

Datei Start Einfügen Zeichnen Entwurf Übergänge Animationen Bildschirmpräsentation Überprüfen Ansicht Hilfe

Kommentare Aufholen Präsentieren Anzeigen Teilen

Neue Folie 12 A⁺ A⁻ F K U

Suchen Diktieren Add-Ins Designer

Standardabschnitt

1 

2 

3 

4 

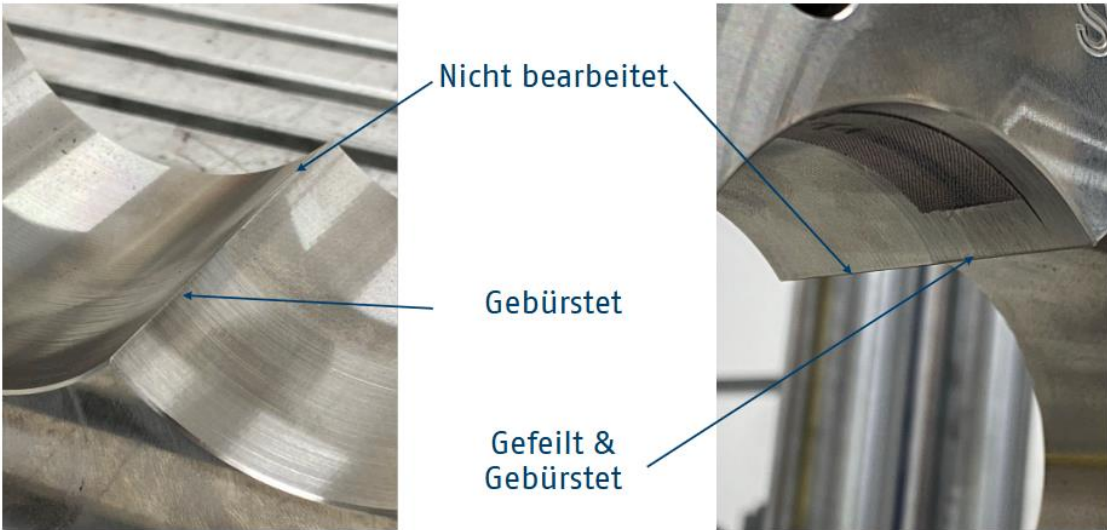
5 

6 

T1 PGH 50

Innenkante entgraten



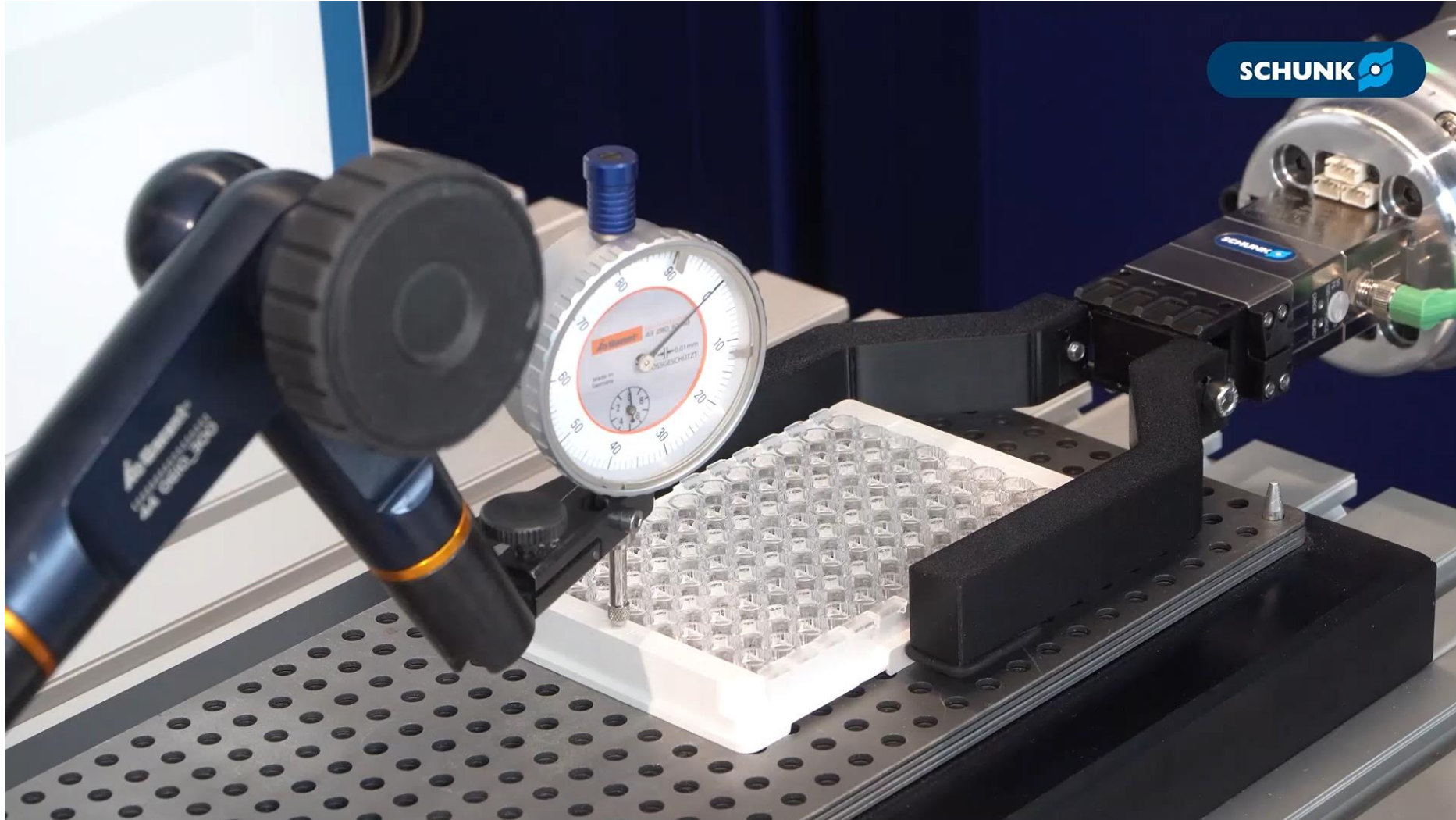


Nicht bearbeitet

Gebürstet

Gefeilt & Gebürstet

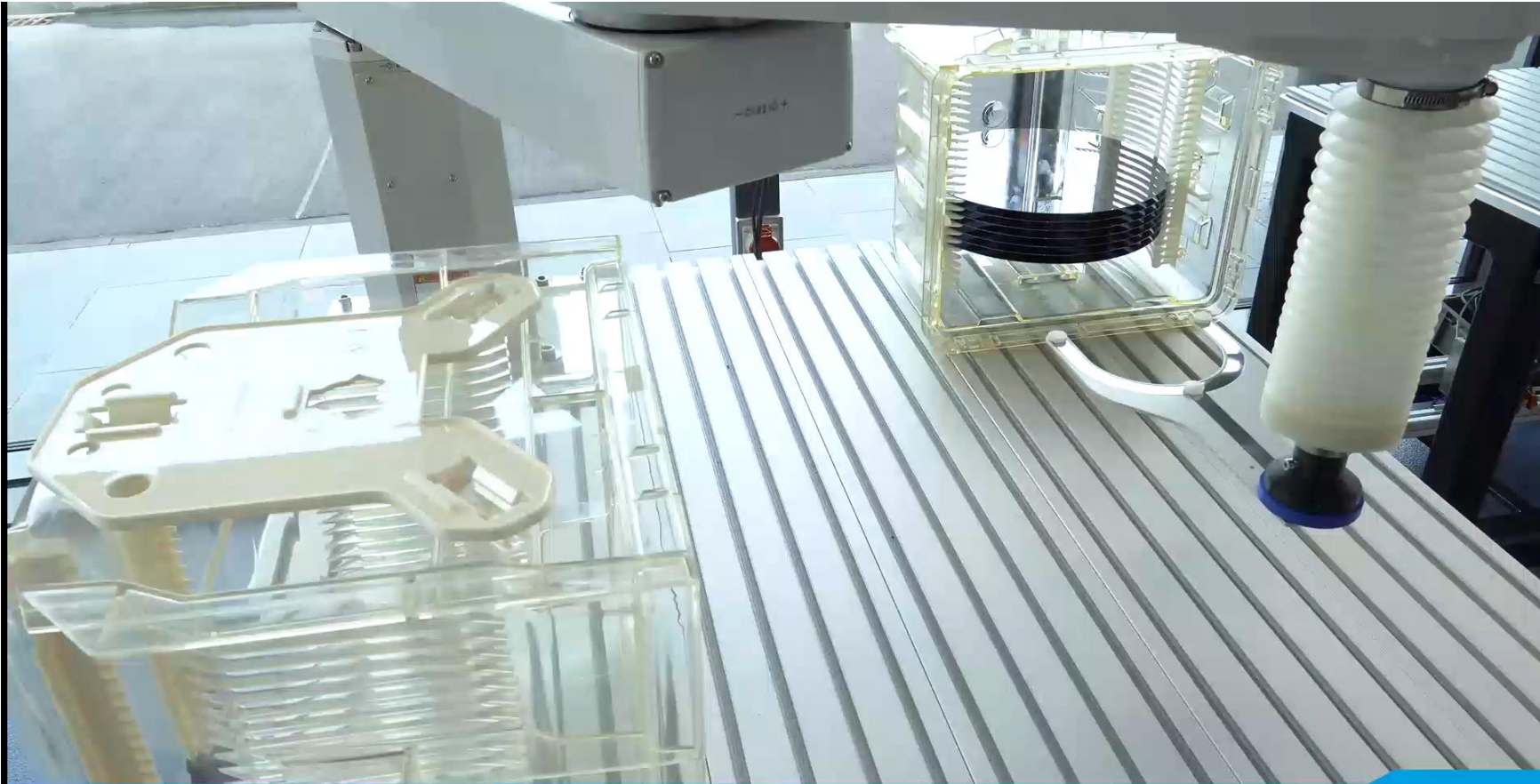
6



Customer Validation Example

ADHES0

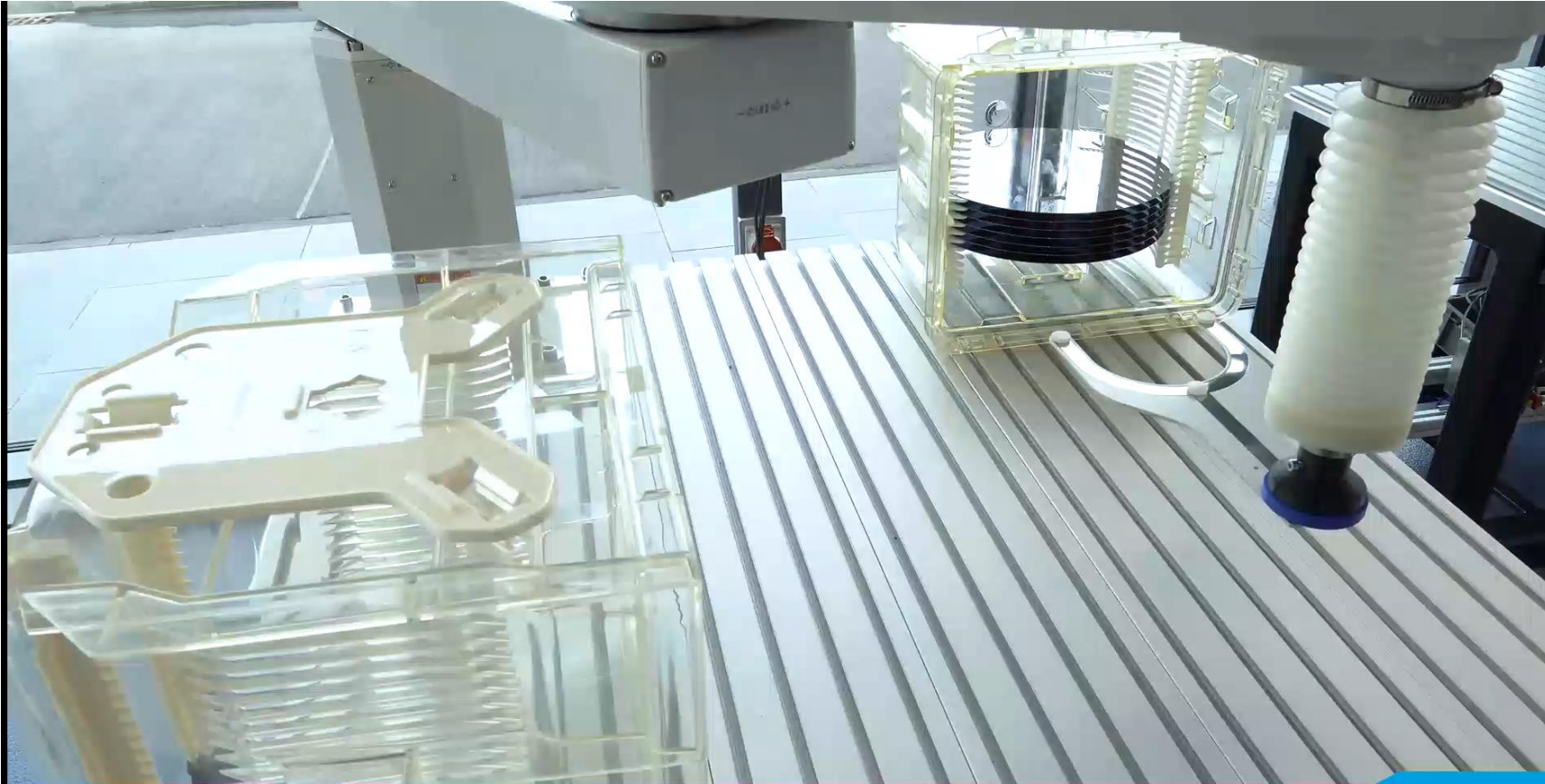
 https://www.youtube.com/watch?v=b1_Abd5wu4Y&list=PLldEHWyjh9t3xlvRxBtsZTTw3Vao4p3cP&index=39



Customer Validation Example

ADHESO

https://www.youtube.com/watch?v=b1_Abd5wu4Y&list=PLldEHWyjh9t3xlvRxBtsZTTw3Vao4p3cP&index=39



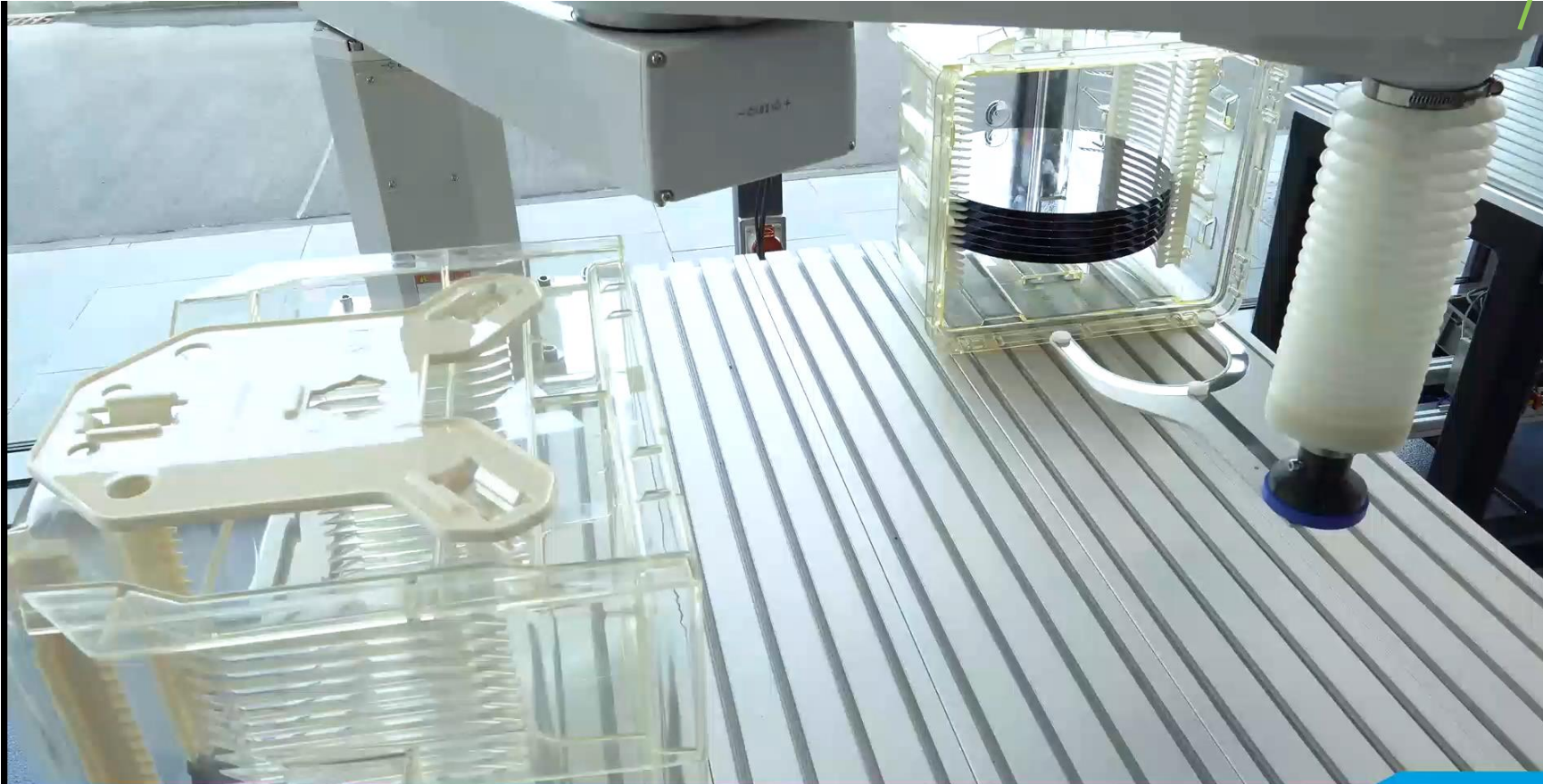
Videos are embedded in the PowerPoint for offline use.

If the presentation is used as a PDF, the videos can also be played online via the link.

Customer Validation Example

ADHESO

 https://www.youtube.com/watch?v=b1_Abd5wu4Y&list=PLldEHWyjh9t3xlvRxBtsZTTw3Vao4p3cP&index=39



Using ADHESO to handle wafers more efficiently and quickly.

ADHESO secures the wafer during the handling process, allowing the handling robot to perform its movements faster.

Customer Validation Example

R-EMENDO

 <https://www.youtube.com/watch?v=aVUvVnYcWu8&list=PLldEHWyjh9t3xlRxBtsZTTw3Vao4p3cP&index=5>



Customer Validation Example

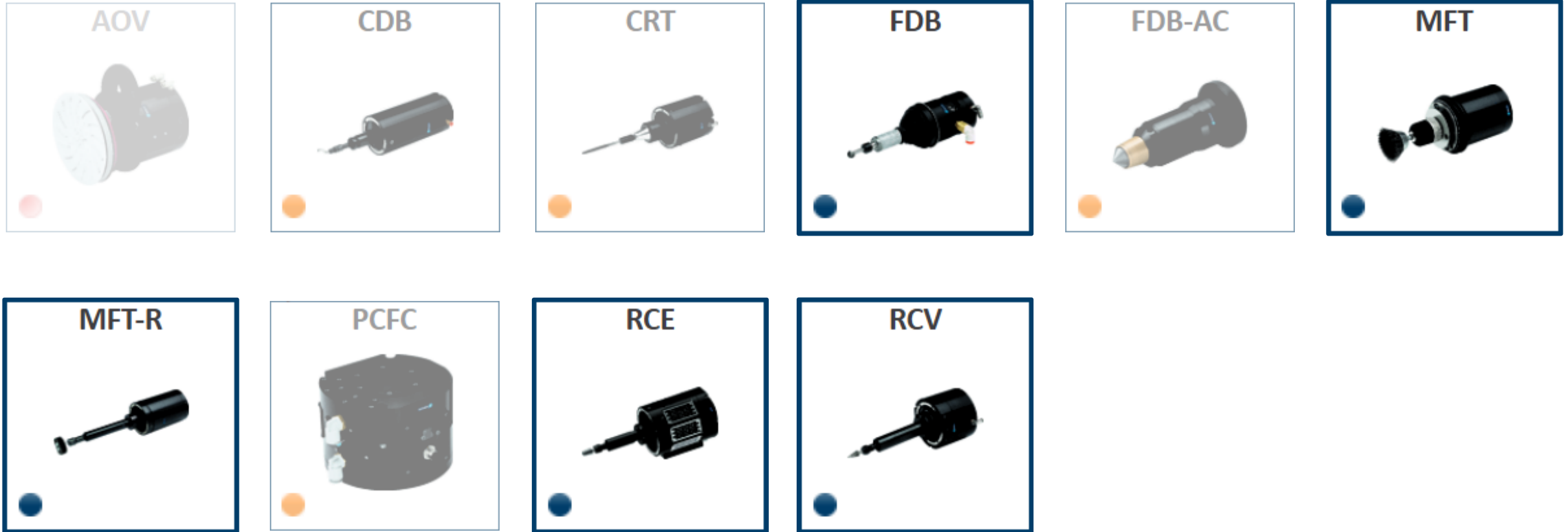
R-EMENDO

 <https://www.youtube.com/watch?v=aVUvVnYcWu8&list=PLldEHWyjh9t3xlvRxBtsZTTw3Vao4p3cP&index=5>



A common application area for R-EMENDO equipment is deburring and processing cast components. This often involves removing risers, sprues, and smaller material protrusions.

R-EMENDO: Alive and Kicking



- Testing and sales like before
- Testing and sales on request. Inform about discontinuation mid 2026
- AOV: No testing and sales anymore

Customer Validation Example

R-EMENDO



A common application area for R-EMENDO equipment is deburring and processing cast components. This often involves removing risers, sprues, and smaller material protrusions.

Customer Validation Example

2D-Grasping

 <https://www.youtube.com/watch?v=FfWeoZWfrH8&list=PLldEHWyjh9t3xlvRxBtsZTTw3Vao4p3cP&index=10>



Customer Validation Example

2D-Grasping

 <https://www.youtube.com/watch?v=FfWeoZWfrH8&list=PLldEHWyjh9t3xlVRxBtsZTTw3Va04p3cP&index=10>



Detecting, inspecting, and packaging electronic components.

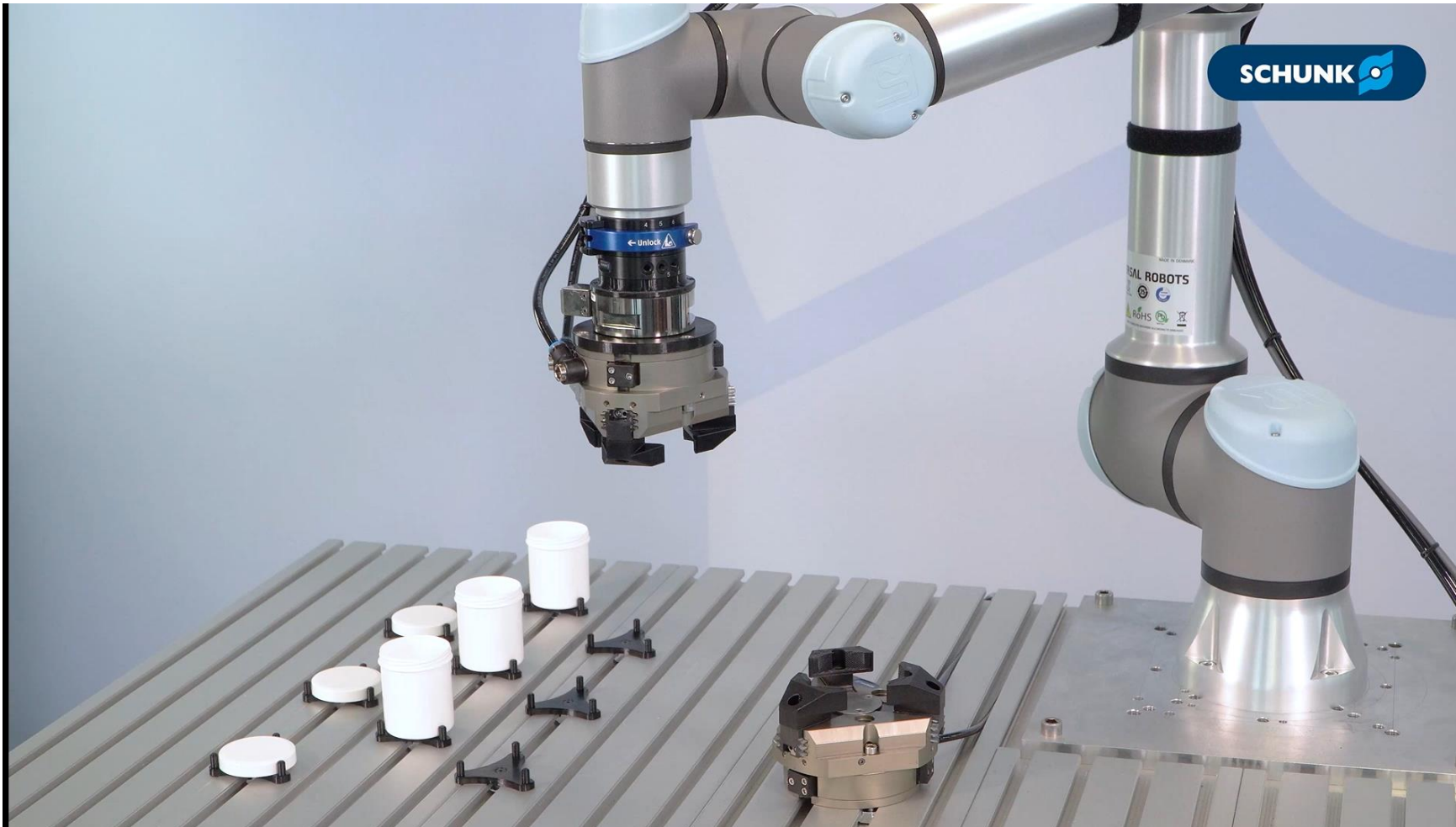
Connector sockets, often delivered as bulk material, are placed on a conveyor belt.

The 2D Grasping Kit accurately detects these components and determines their orientation. Correctly positioned components are picked up and fed into a quality assurance process. Once passed, they are packaged.

Customer Validation Example

Force Sensor

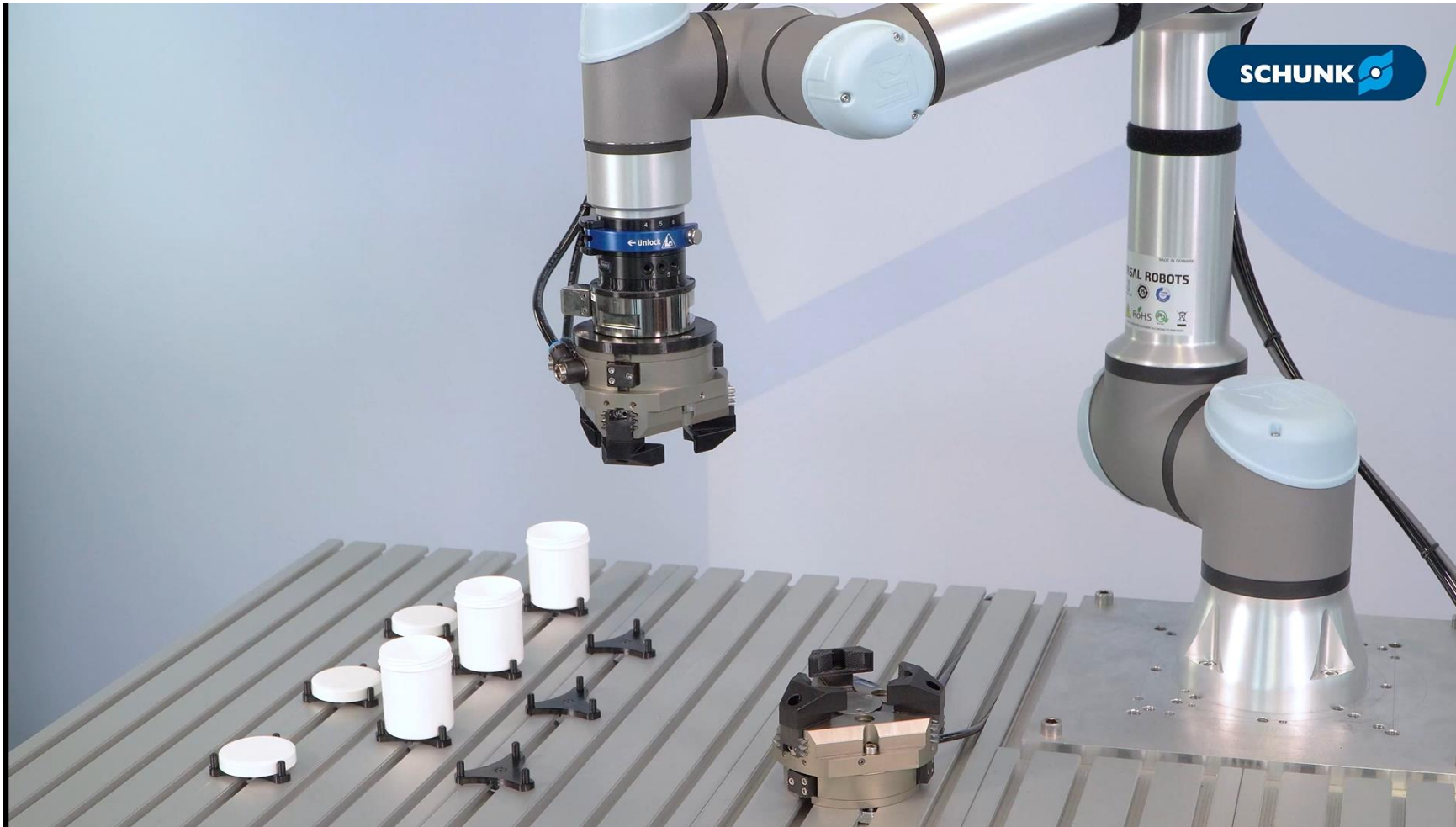
 <https://www.youtube.com/watch?v=pM6Qpz1W76M&list=PLldEHWyjh9t3xlRxBtsZTTw3Vao4p3cP&index=20>



Customer Validation Example

Force Sensor

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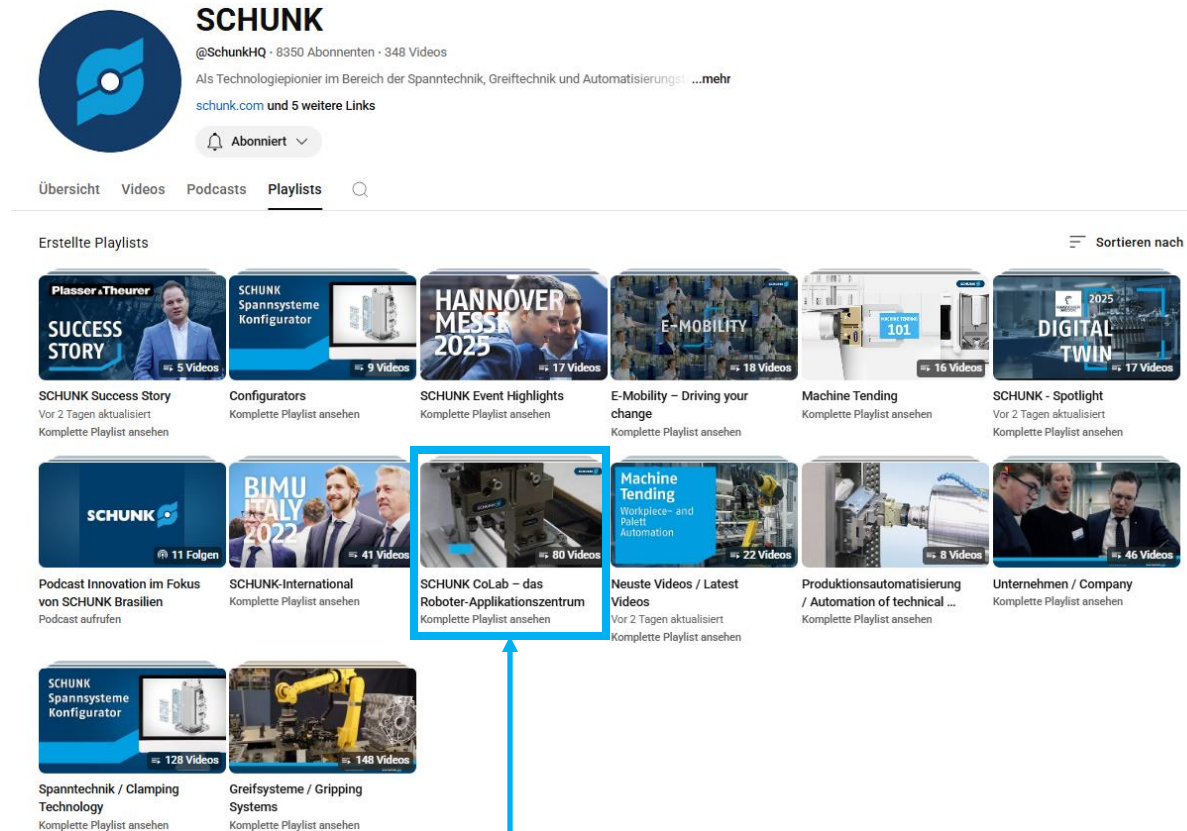


Inline process control of a screwing process.

The force sensor, installed between the gripper and the robot, actively monitors the screwing process. Since the thread of the lid and the cup are always slightly misaligned during provisioning, the required rotational movement for screwing varies.

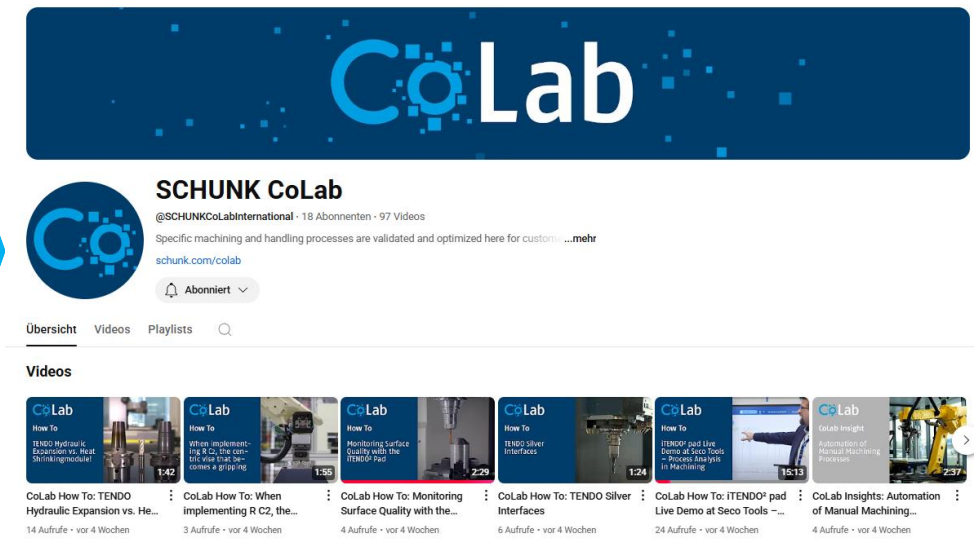
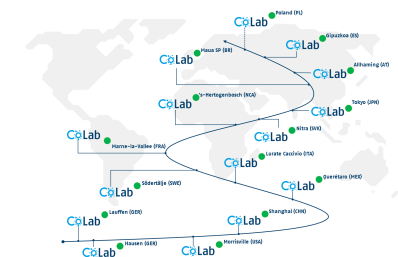
Based on the force values, the robot determines how much further the lid needs to be rotated and also detects issues such as cross-threading.

Own YouTube-Channel




Content mainly by HQ

<https://www.youtube.com/@SCHUNKCoLabInternational>

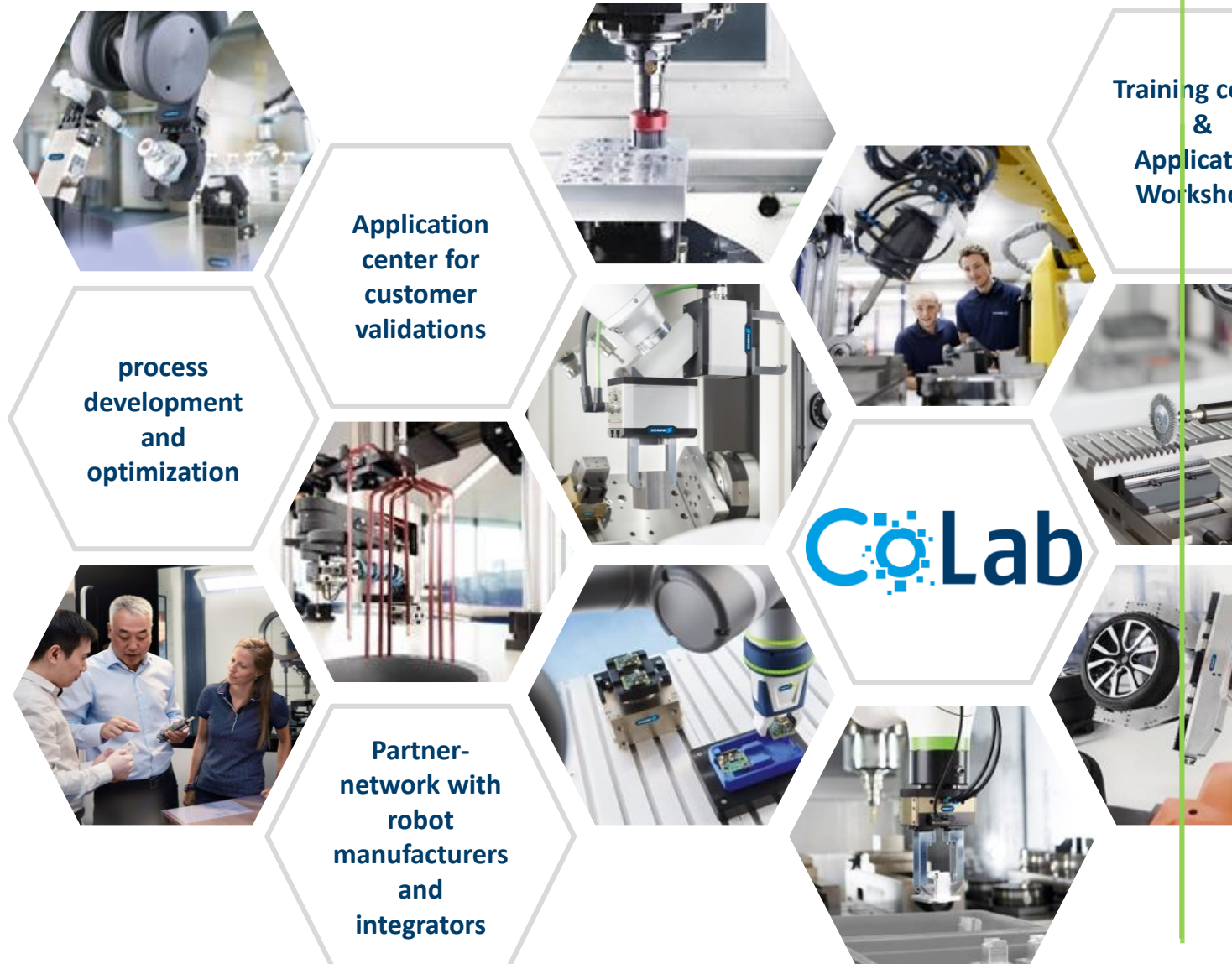



Generate content
across the entire world

Further CoLab Activities



Further CoLab Activities



Customer Validation

Own benefit: Expanding our expertise in the application of our own products, both centrally at HQ and in the INTECs.

Developing and Optimizing Processes

The aim is to convey that during validations, we not only focus on our product but also consider the customer's associated process.

Partner Network

Strengthen relationships with robot manufacturers, enable open-house events at our facilities or partners' sites through setups, and forward leads to integrators.

Training Center

The main hub for hands-on training for colleagues as well as customers (application workshops).

Support for R&D

The CoLab ensures that insights and requirements from practical applications are considered in new developments and improvements.

Application Workshops

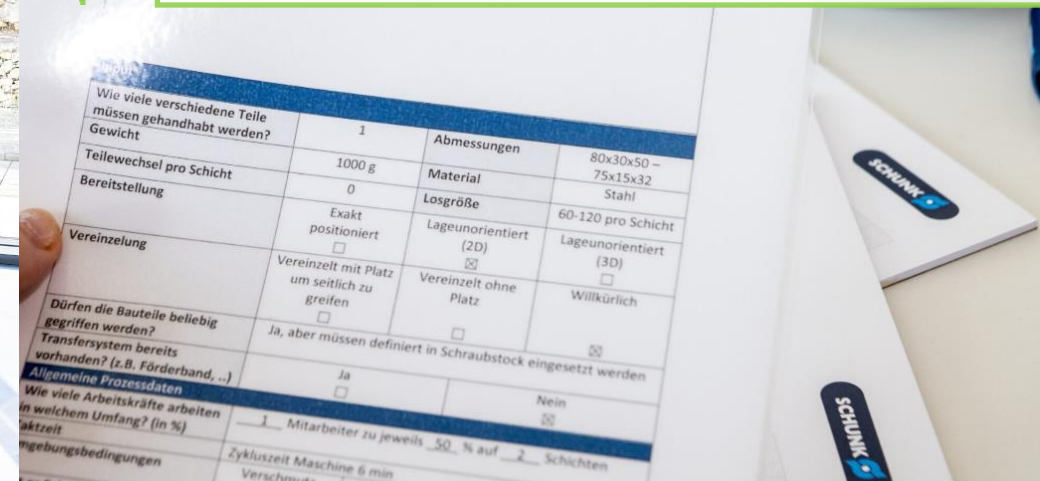


Applikationsworkshop zielt auf Kunden, die bisher keine oder nur wenig Erfahrung im Automationsbereich haben. Folgende Inhalte werden vermittelt:

- Grundlagen der Automatisierung
- Das richtige Vorgehen hin zur Automatisierung
- Analyse und Praxisbeispiele
- Umsetzung direkt am Roboter
- Sicherheitsbetrachtung und Risikobeurteilung

Mehr Informationen und Anmeldung:

<https://schunk.com/de/de/messen/applikationsworkshop>



Wie viele verschiedene Teile müssen gehandhabt werden?	1	Abmessungen	80x30x50 – 75x15x32
Gewicht	1000 g	Material	Stahl
Teilwechsel pro Schicht	0	Losgröße	60-120 pro Schicht
Bereitstellung	Exakt positioniert	Lageunorientiert (2D)	Lageunorientiert (3D)
Vereinzelung	☐ Vereinzelt mit Platz um seitlich zu greifen	☒ Vereinzelt ohne Platz	Willkürlich
Dürfen die Bauteile beliebig gegriffen werden?	☐ Ja, aber müssen definiert in Schraubstock eingesetzt werden	☐ Nein	
Transfersystem bereits vorhanden? (z.B. Förderband, ...)	☐ Ja	☒ Nein	
Allgemeine Prozessdaten			
Wie viele Arbeitskräfte arbeiten in welchem Umfang? (in %)	1 Mitarbeiter zu jeweils 50 % auf 2 Schichten		
aktuelle Zeit			
Umgebungsbedingungen	Zykluszeit Maschine 6 min		
	Verschmutz		

Application Workshops



Application Workshop

The workshop is aimed at customers who have little to no experience in the field of automation. The following topics are covered:

- Basics of automation
- The right approach to automation
- Analysis and practical examples
- Implementation directly on the robot
- Safety considerations and risk assessment

More information and registration:

<https://schunk.com/de/de/messen/applikationsworkshop>

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Application Workshops

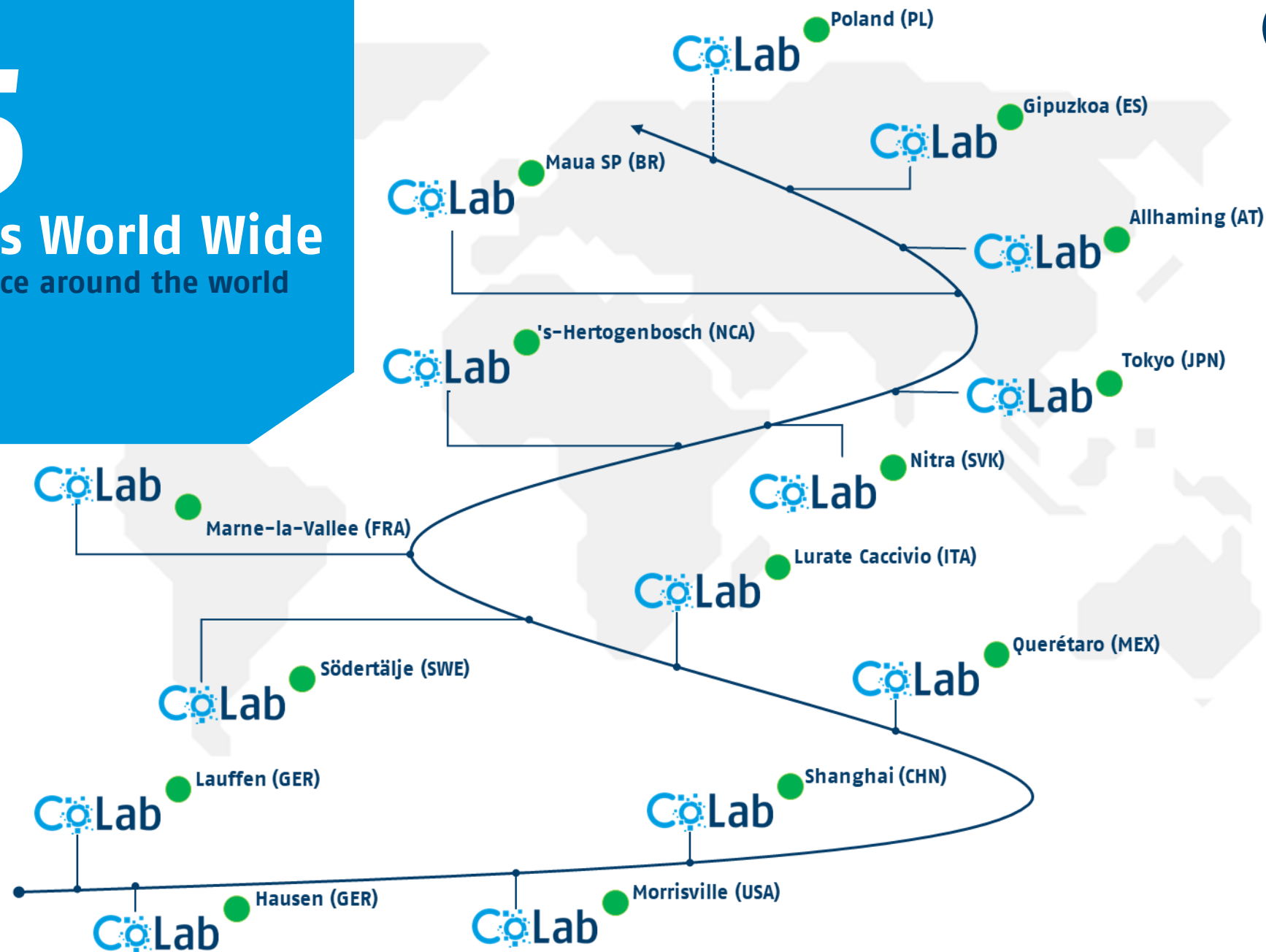
 <https://www.youtube.com/watch?v=8v5mYMmsSA4>



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CoLabs World Wide

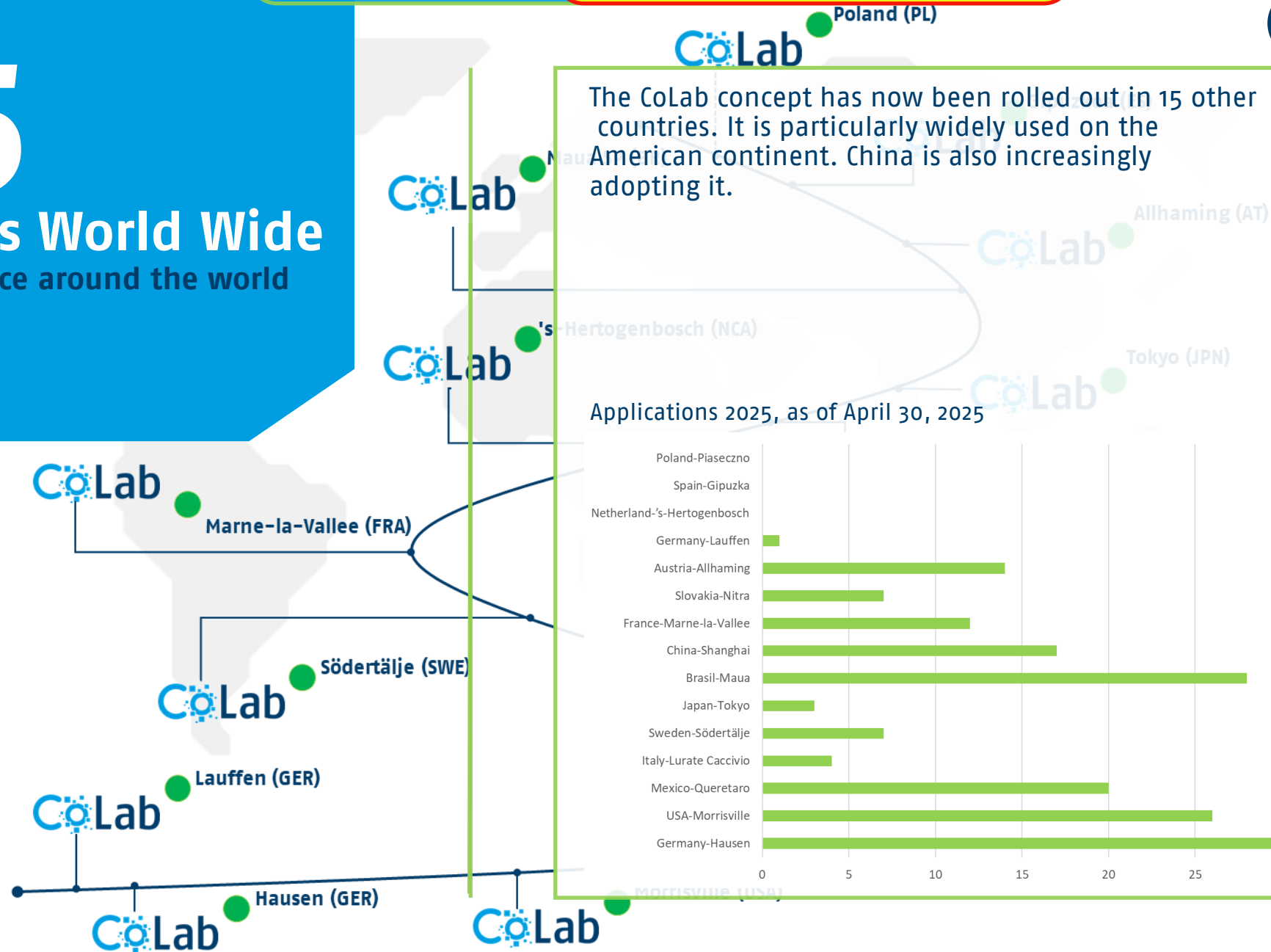
Competence around the world



15

CoLabs World Wide

Competence around the world



Example CoLab Mexico

15

CoLabs World Wide

Competence around the world

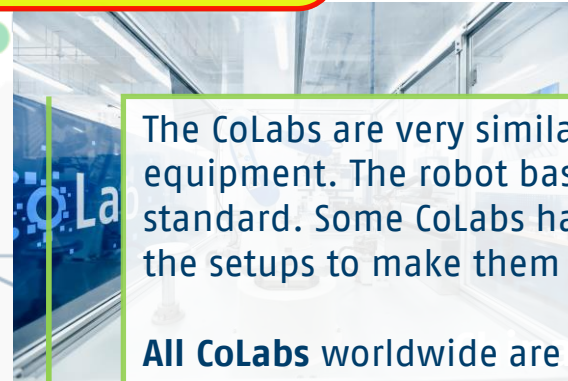
SCHUNK



15

CoLabs World Wide

Competence around the world



The CoLabs are very similar in their basic equipment. The robot base setups almost follow a standard. Some CoLabs have additionally enclosed the setups to make them visually more appealing.

All CoLabs worldwide are equipped with multiple cobots for validating fundamental gripping and assembly processes.

Almost all CoLabs are equipped with a 2D Grasping System with a Flexibowl.

DE, AT, USA, MX, PL, SW, and IT also validate R-EMENDO processes.



CoLab

Marne-la-Vallee (FRA)



CoLab Worldwide Numbers

2021 – Q3 2024



Validation is free
of charge

- + Feasibility test and documentation from application experts
- + Live demonstration and customer training



More than **70** robots are
available for tests



Over **1950**
validated applications

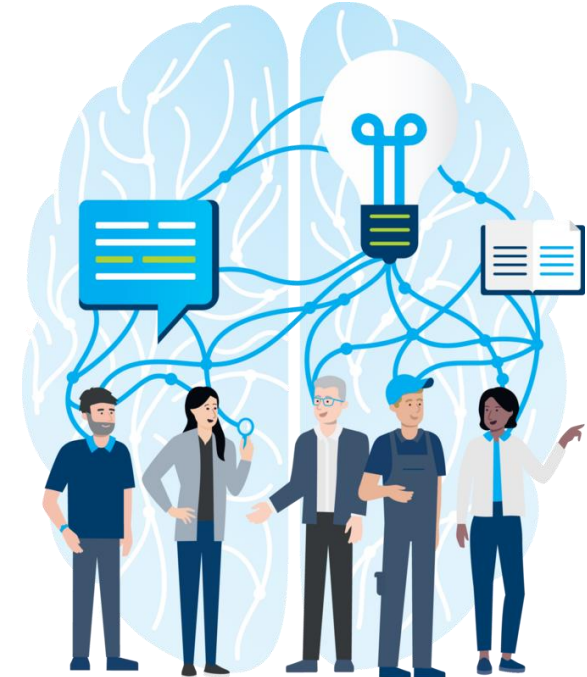
Use the CoLab to Your Advantage

Contact your SCHUNK
Regional Sales Manager

Discuss the requirements of
your application with our
application experts

Validation of your
application in the CoLab

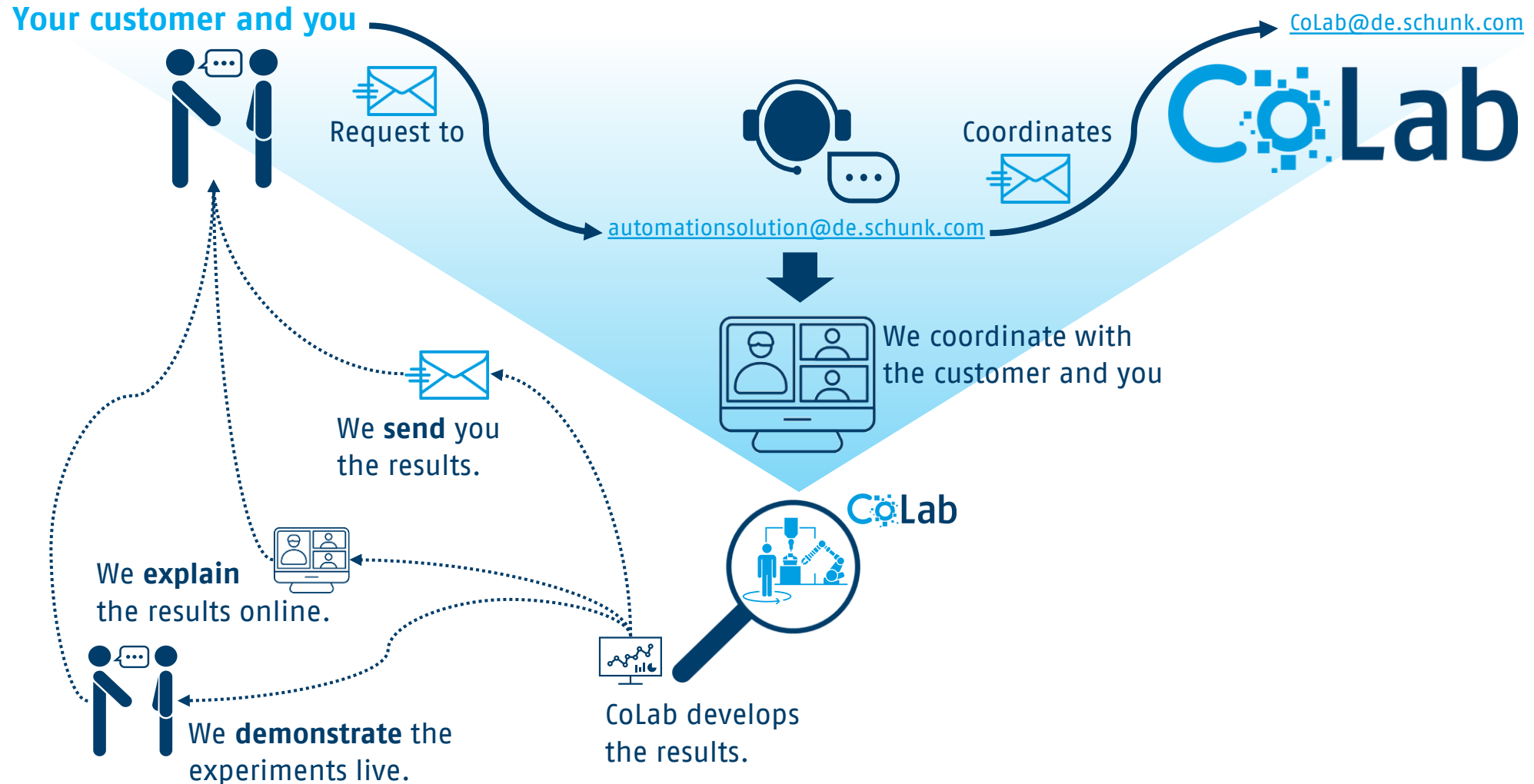
Watch the validation results
and get recommendations for
products and parameters



Stay tuned and watch the latest application
on our [YouTube Playlist](#)  YouTube



What do the communication channels look like in detail (in Germany)?



Contact Your Local CoLab

Your customer and you



Land	CoLab Mail	Responsible Person
Austria	CoLab@at.schunk.com	Daniel Kloimstein
Brasil	CoLab@br.schuk.com	Julio Del Valle
China	CoLab@cn.schunk.com	Chengkun Shen
Spain	CoLab@es.schunk.com	Alberto Garate
France	CoLab@fr.schunk.com	Helene Charpon
Italy	CoLab@it.schunk.com	Pietro Casiraghi
Mexico	CoLab@mx.schunk.com	Cristobal Calva
Netherlands	CoLab@nl.schunk.com	Ingrid Heeren
Sweden	CoLab@se.schunk.com	Daniel Lutzov
Slovakia	CoLab@sk.schunk.com	Matej Biro
United States	CoLab@us.schunk.com	Aaron Royster
Germany-Hausen	CoLab@de.schunk.com	Fabian Ballier
Germany-Lauffen	CoLab-Lauffen@de.schunk.com	Uwe Weil
Japan	-	Misaki Sawai
Polen	-	Marcin Lesiak



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