iiQKA
Robots for the People

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https://wwwyoutube.com/watch?v=62Ks9_pMHtg

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Robot-based automation is a megatrend. We see opportunities.

- Robots as intuitive to use as smartphones
- Holistic customer experience
- Accessible hardware
- Simplified business interactions
- Easing the path for both experts and newcomers

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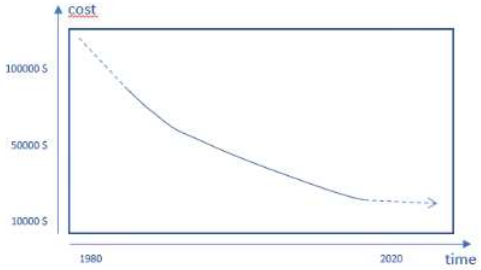
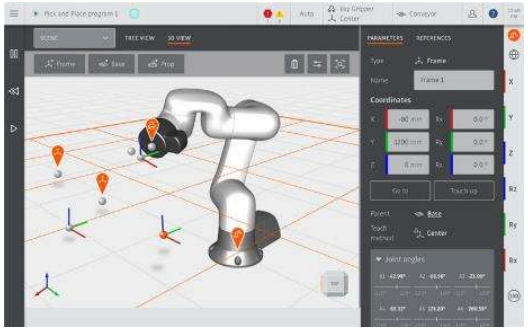
What are the first steps KUKA takes with iiQKA.OS and the iiQKA Ecosystem?

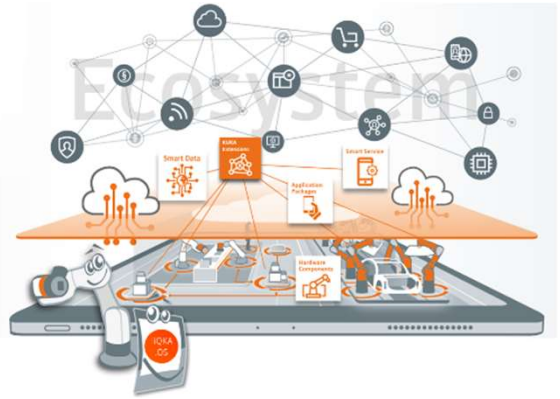
Low-cost, accessible hardware



End-user usability: Easy setup, easy config, easy programming, easy system extension



Ecosystems for developer and end-user usability



LJ0

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The LBR iisy family

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Diapositiva 5

LJ0 6/8 kg variant is missing
Landherr, Johannes; 2023-02-09T12:40:09.604

VP0 0 It's better to explain if not customers think that we have 5 differnt mechanics..already happened
Vaniglia, Paolo; 2023-02-09T14:28:33.113

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LBR iisy
The Commander

[+] Basic features

- Easy to use
- Safe Enabling switch (both sides)
- Click Wheel (Touch-Up)
- Cancel Button
- ISO Flange
- Handle for one-handed smooth handguiding
- Internal Energy Supply (I/O, Gigabit)
- LED ring for status indication

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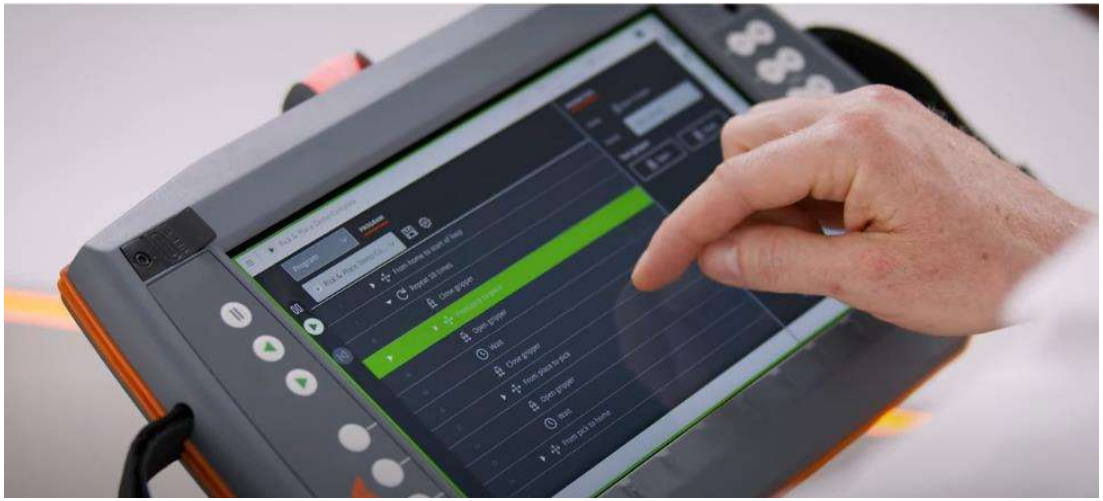
LBR iisy family
Technical Data

	LBR iisy 3 R760	LBR iisy 6 R1300	LBR iisy 8 R930	LBR iisy 11 R1300	LBR iisy 15 R930
Number of joints	6	6	6	6	6
Payload	3 kg	6 kg	8 kg	11 kg	15 kg
Reach	760 mm to flange plate	1300 mm to flange plate	930 mm to flange plate	1300 mm to flange plate	930 mm to flange plate
IP rating	IP 30	IP 54	IP 54	IP 54	IP 54
Ambient temperature	5 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C	0 °C to 45 °C
Internal Energy supply	1x Gbit Bus, 8 wires (I/O, Power line)	1x Gbit Bus, 8 wires (I/O, Power line)	1x Gbit Bus, 8 wires (I/O, Power line)	1x Gbit Bus, 8 wires (I/O, Power line)	1x Gbit Bus, 8 wires (I/O, Power line)
Performance Level	Level d Cat3 (same as LBR iiwa)	Level d Cat3	Level d Cat3	Level d Cat3	Level d Cat3
Cleanroom version	-	-	-	10/23	10/23
Mounting position	Floor, Ceiling, Wall	Floor, Ceiling, Wall	Floor, Ceiling, Wall	Floor, Ceiling, Wall	Floor, Ceiling, Wall
Weight	23 kg	46.3 kg	43.2 kg	46.3 kg	43.2 kg

iiQKA.OS

smart_3D-View
https://wwwyoutube.com/watch?v=8vbrrlShoPI



smart_programming makes automation easy
https://wwwyoutube.com/watch?v=kQ17RG1O3a8

Application Example – **Customer Success Stories**

Description

- **Application Typology**: Quality inspection of electronic boards. Thanks to a camera, connected to an external PLC, the LBR iisy 3 detects defects and faulty assembled parts on electronics boards. The LBR iisy communicates via IOs with the PLC, that selects which electronic board is good and which is bad.
- **Customer needs**: Easy way to program by operator and to change the shape of the electronic boards to be checked, easy reaction to faults and robot stops

Winning points

- Easy programming without any external software
- Commisioning of the LBR iisy in 30 min
- Program developped in 1 hour
- Gripping system integrated in the programming

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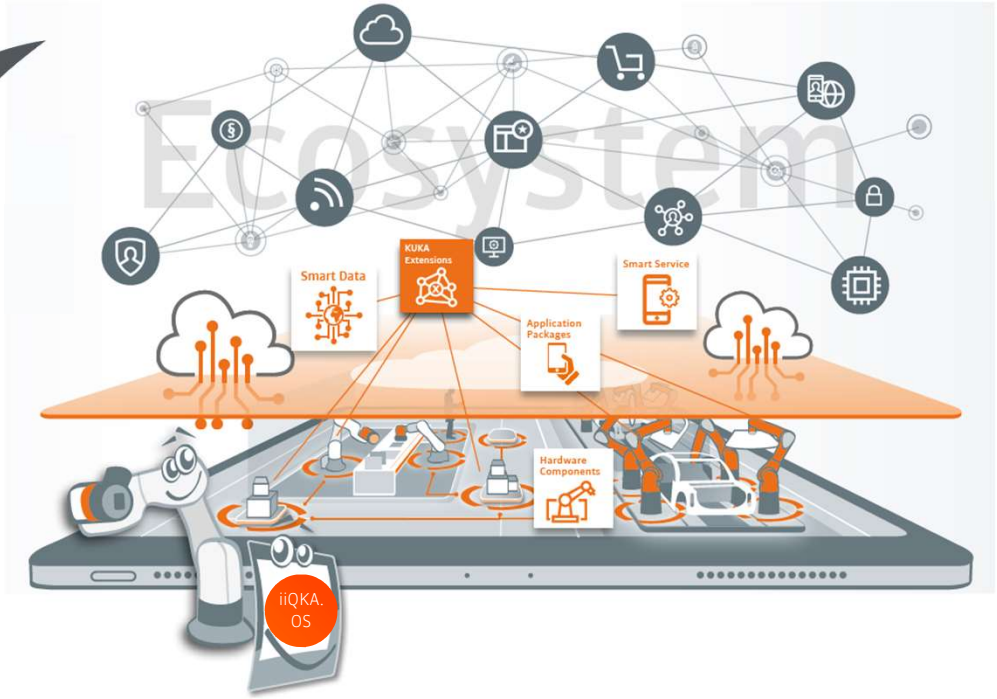
iiQKA Ecosystem – What are benefits for consumer and provider

Benefits as a consumer

- ✓ Ease of use – from buying and installing to programming and operating
- ✓ Smart Extension – Finding the right 3rd party component and easy installation of solution packages
- ✓ Reduction of engineering effort & time



Benefits as a provider

- ✓ Extend customer reach
- ✓ Use of KUKA Sales & Support Channels
- ✓ Combine technology, knowledge and products of multiple ecosystem partners
- ✓ Participating in the iiQKA community and increase revenue

iiQKA Ecosystem Keystone Partners

SCHUNK

SICK
Sensor Intelligence.

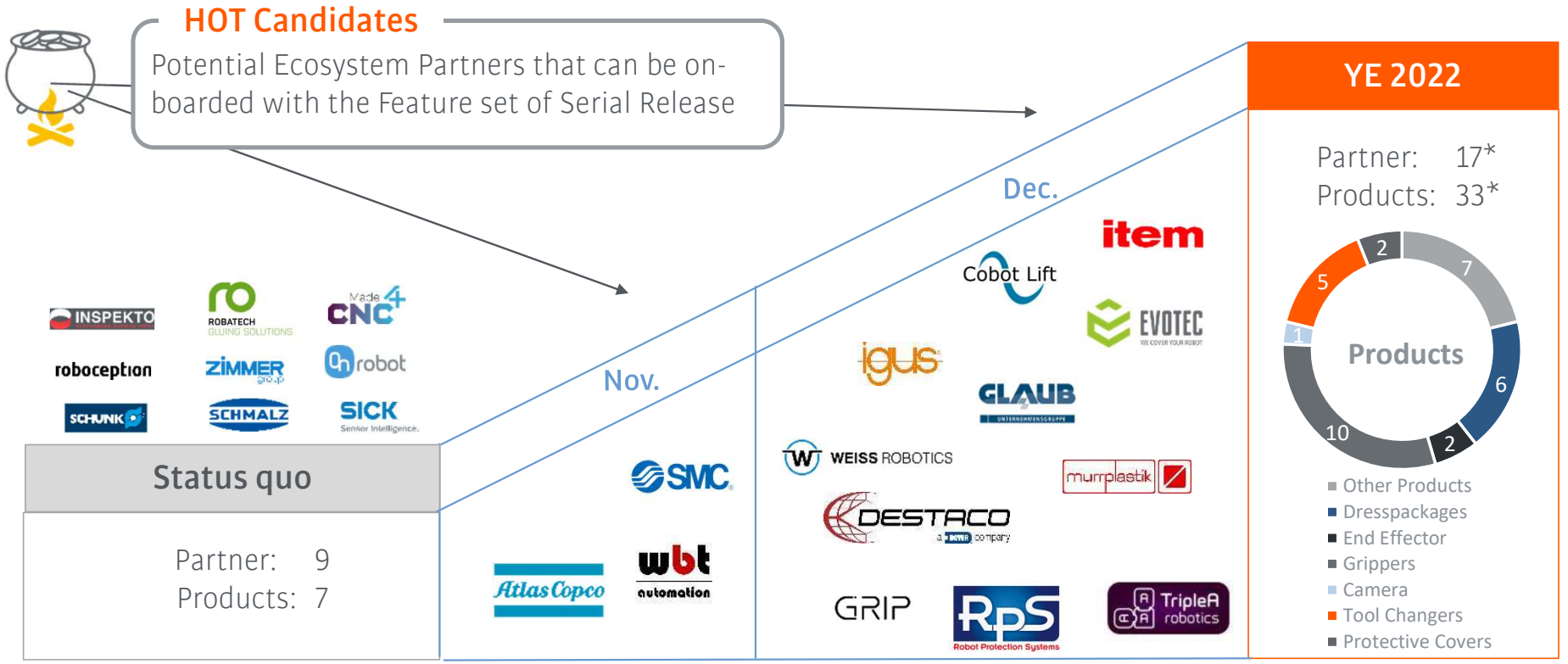
roboception

ZIMMER group

https://my.kuka.com/shop#/it/category/a1Z1i000003XCAPEA4/iiQKA-Ecosystem → To check any new components

LJ0

iiQKA Ecosystem – Onboarding of new 17 partners and 33 extensions until YE 2022 planned



* Development effort and available resources on Ecosystem partner side is not validated yet

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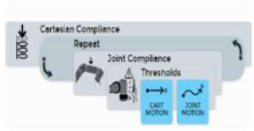
Diapositiva 12

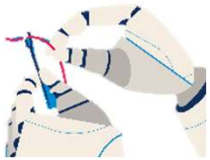
LJ0 Please contact Börn from eco team
Landherr, Johannes; 2023-02-09T12:55:42.045

VP0 0 already done
Vaniglia, Paolo; 2023-02-09T13:26:04.275

LJ0

Cobot, iiQKA reaches the following market requirements





	Easy 2 Use	Price	Handguiding	Lightweight	Fenceless	Sensitive
Importance for cobot	★★★★★	★★★	★★	★★	★★	★
Example	First application in less than 30 min	Reduce CAPEX, fast ROI	Easy Teaching and Movement	Flexibility in changing Application	No Additional Safety Fences, Flexibility	e.g. sensing forces in Assembly tasks

KUKA approach with LBR iiwa

Diapositiva 13

LJ0 I would not mention UR directly if this presenation goes to the customer

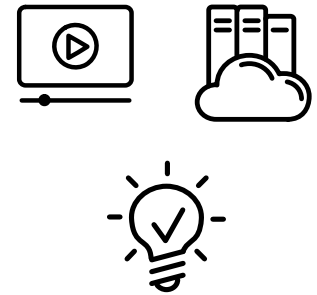
Sensitivity is missing...
Landherr, Johannes; 2023-02-09T12:41:43.902

VP0 0 but will come in october....
Vaniglia, Paolo; 2023-02-09T13:34:36.773

iiQKA Solutions

Enabling non-experts to start into automation easily; improving the process for experts

Today → **iiQKA.OS**



Biggest benefit for non-experts

(from ***DAYS*** to ***HOURS*** of time)

Experts also benefit

(from ***HOURS*** to ***MINUTES*** of time)

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The largest Robotics showroom in Italy – for training and customer meetings

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https://www.youtube.com/playlist?list=PLcmh-lxe_PW4_17pxQ7yq3ECp4I8nyJZk

Showroom at KUKA Italia

9 video • 159 visualizzazioni • Aggiornata 3 giorni fa

In this playlist we explain each of our robotic applications presented in the showroom of KUKA Italia.

KUKA - Robots & Automation

ISCRIVITI

1

Avvitatura automatizzata con robot KUKA KR AGILUS e sistema Atlas Copco
KUKA - Robots & Automation

2

L'intelligenza Artificiale incontra il robot collaborativo KUKA LBR iiwa
KUKA - Robots & Automation

3

Programmazione robot offline con KUKA.Sim e simulatore di linee di produzione in realtà virtuale
KUKA - Robots & Automation

4

Sistema di bin-picking con robot KR CYBERTECH, sistema di visione ISS e robot mobile KMR iiwa
KUKA - Robots & Automation

5

Machine Automation con KUKA mxAutomation per una facile integrazione con controlli numerici e PLC
KUKA - Robots & Automation

6

Come realizzare una cella di robotica collaborativa con cobot KUKA LBR iiwa
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7

Pallettizzazione leggera con robot KR CYBERTECH-2 e AIRSKIN per maggiore sicurezza
KUKA - Robots & Automation

8

Robotica medicale con robot KUKA LBR Med e HIFUSK: chirurgia ad ultrasuoni
KUKA - Robots & Automation

9
Pick & Place ad alta velocità con robot KR SCARA e controllo KR C5
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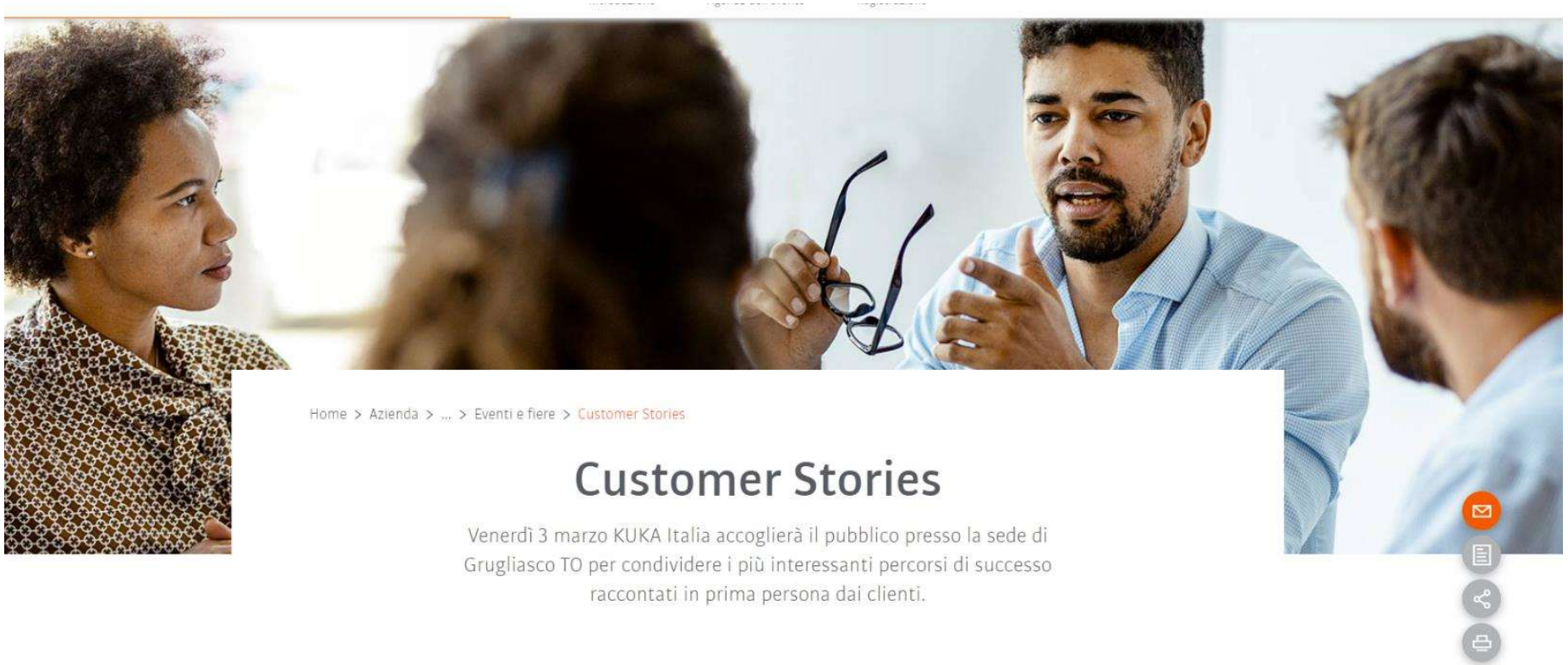
KUKA Customer Stories – 3 Marzo @ KUKA Italia



The journey has just started, stay tuned for more