

WEBINAR

LA ROBOTICA NEL SISTEMA DI INDUSTRIA 4.0: UN'OPPORTUNITÀ PER LE PMI

Mercoledì 17 febbraio

Giulio della Porta

ABB Robotics

ABB is a leading supplier of industrial robots and robot software, equipment and complete application solutions

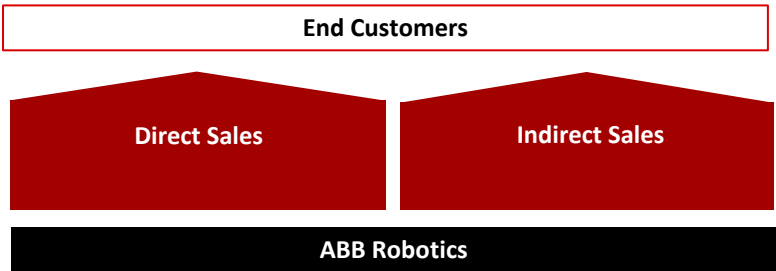
Our business

#2 Global

Main figures

- \$3,3 bn revenues on 2019
- 53 countries
- More than 6.000 employees
- More than 100 locations
- More than 400.000 robots delivered worldwide

Market approach



Our customers

Main industries in which we operate



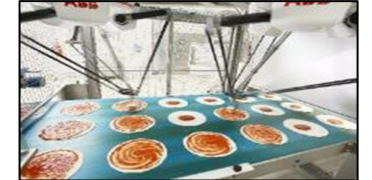
Automotive



Cement & Glass



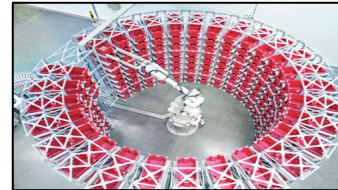
Electronics



Food & Beverage



Healthcare



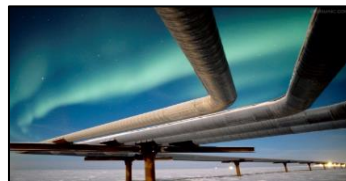
Logistics



Machining



Metals



Oil & Gas



Pharmaceutical



Plastics & Rubber



Pulp & Paper

ABB Robotics & Discrete Automation

Global Presence

Key factors

- Manufacturing in America, Europe and Asia
- Technology leadership sales and service operations in 53 countries and more than 100 locations
- More than 400.000 robots delivered worldwide
- Over 6.000 employees

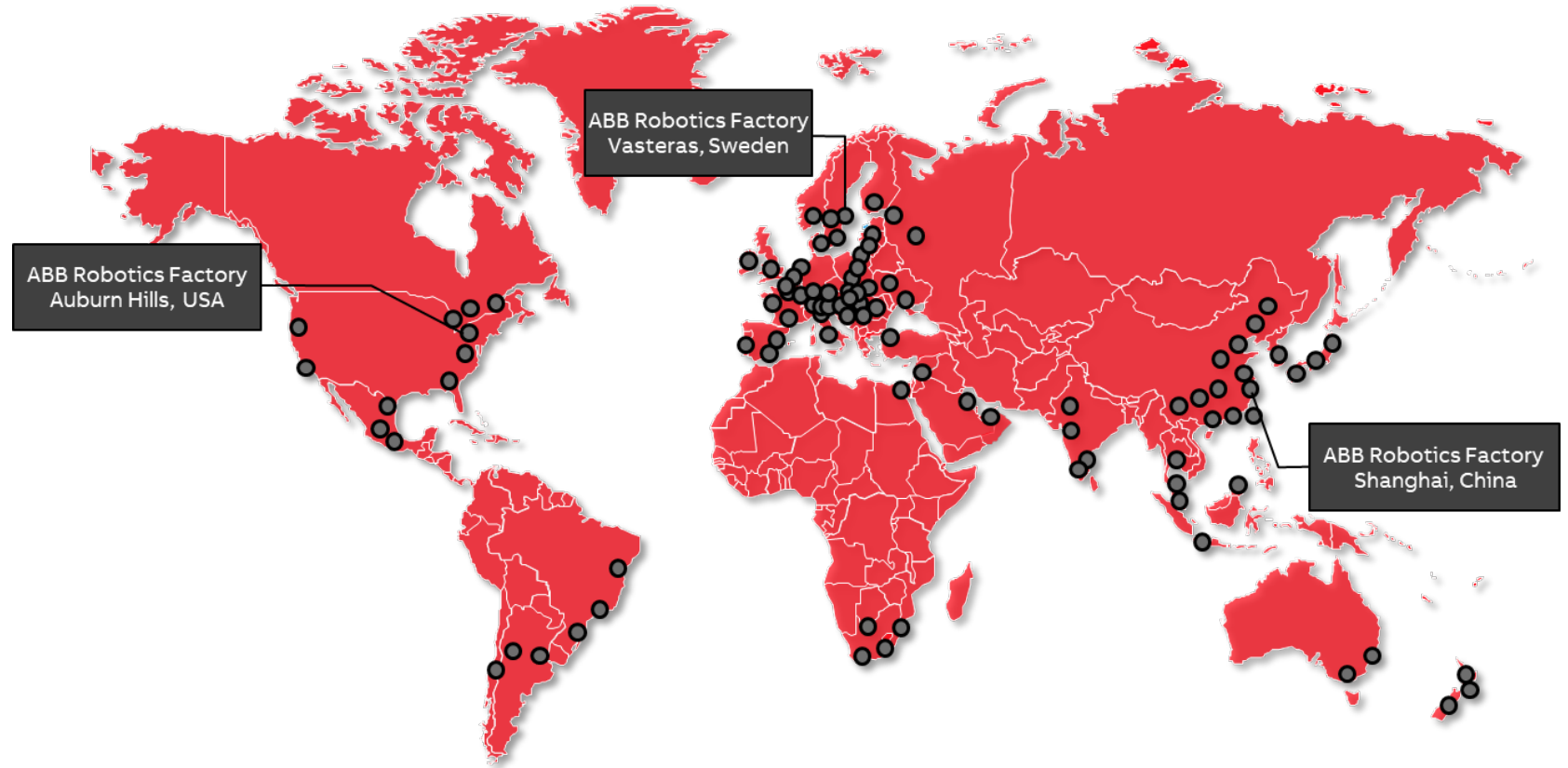


ABB Robotics

Local Presence



Robotics Technology Center (Vittuone, Milano):

- Global Solution Center
- Showroom
- Training Center
- Workshop

Paint Systems (Torino):

- Sales
- Technical
- Engineering
- Management



HQ ABB (Sesto San Giovanni, Milano):

- Sales
- Technical
- Engineering
- Management

Castel Maggiore, Bologna:

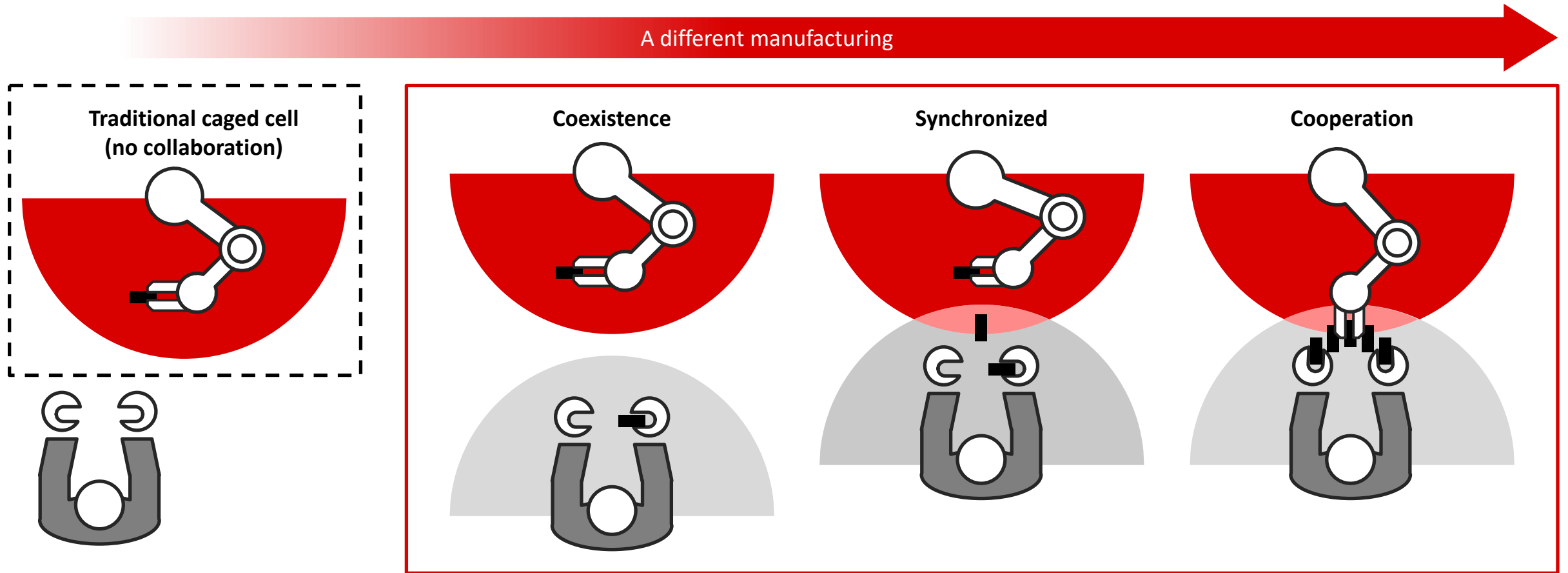
- Sales

Castelnuovo di Napoli, Napoli:

- Sales

Human Robot Collaboration

What is it?



HRC – Human Robot Collaboration

Economic Background

Volume on # Variants

Societal Trend

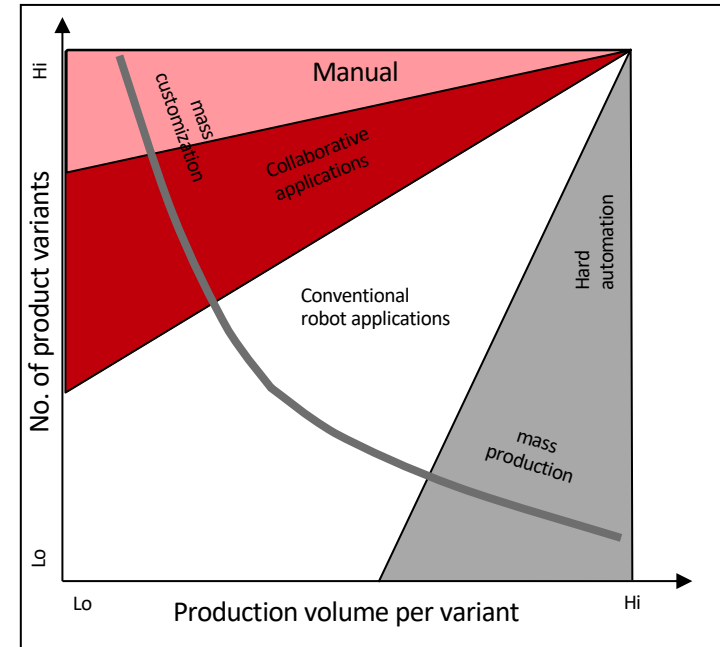
- Individuality
- Differentiation w.r.t. peers

Resulting Market Trend

- Increasing no. of product variants, customization
- Decreasing product lifetime
- From “mass production” towards “mass customization”

Challenge to Industrial Production

- Efficient handling of large range of variants and short model lifetimes
- Common solution today: Mostly manual production in Asia

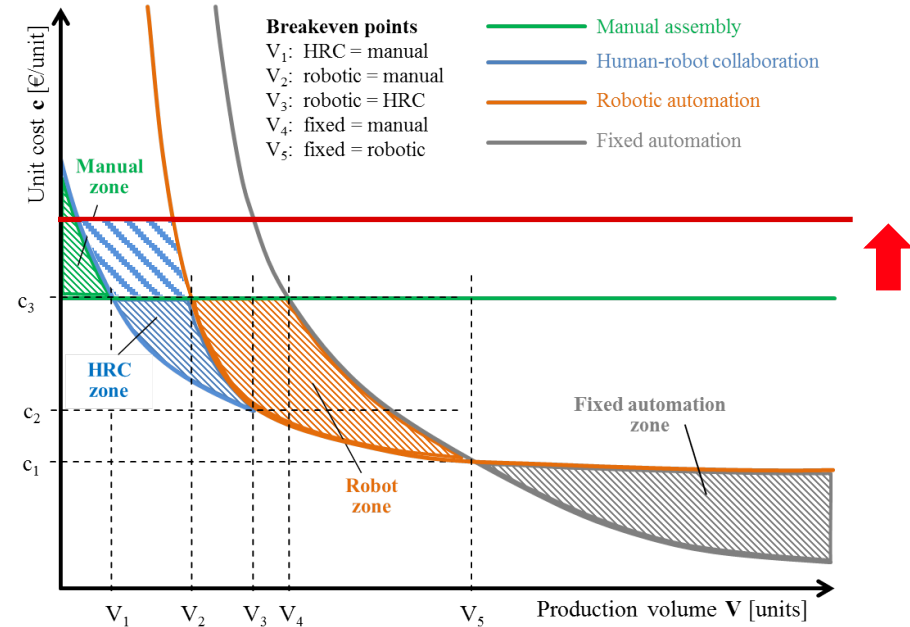


HRC – Human Robot Collaboration

Productivity

Volume on unit cost

- Considering a defined item the used technology is depending on the required volume.
- Using HRC can reduce the unit costs in case of medium /low volumes .
- HRC can create new opportunity in investment on automation.
- The increasing of labor cost can increase the area of HRC application



Collaborative robots

ABB Offering

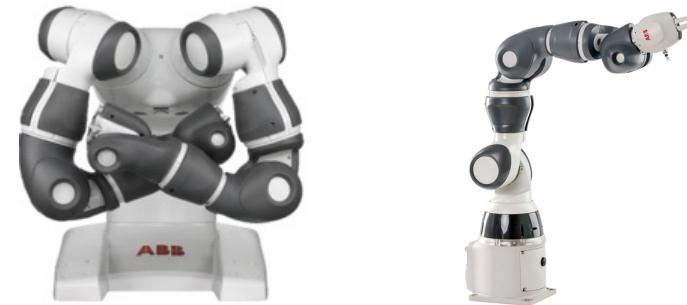
Higher Performance, Intermittent Collaboration

- Robots have higher payload and/or speed
- Suitable for intermittent collaboration
- **SafeMove2** and external sensors ensure human safety
- Robot will adjust speed depending on distance to human and stop before contact



Inherently Safe & Truly Collaborative

- Unique robots designed based on inherently safe principles
- Robots able to share workspace with human continuously
- External sensors or fences not required*
- Robot can maintain high working speed and still make safe contact with human



Collaborative robots

IRB 1200 and SafeMove2

Robots move fast, pose potential risks to people.

Safety barriers (fences cages, light curtains) intended to prevent people from walking into a robot cells.

- Passing barriers cause robots to stop; interrupts production.
- Disqualifies collaboration between humans and robots.
- Fast moving robots can break barriers if mistakenly programmed.

SafeMove2 supply solutions to remove these bonds while maintain production.



Collaborative robots

YuMi

YuMi is the first truly collaborative dual armed robot, designed for a world in which humans and robots work together.

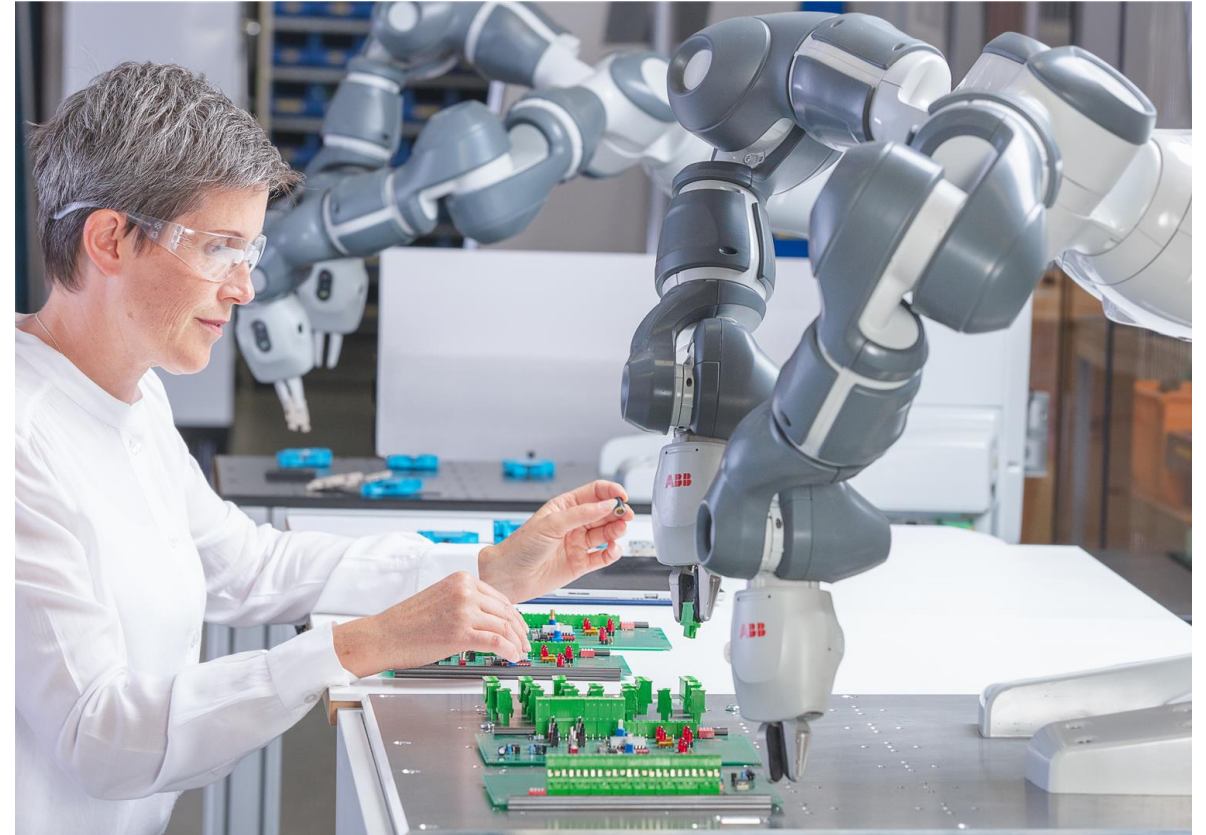
The precursor of a new era of co-working which allows to work side-by-side on the same tasks as humans with extreme accuracy while ensuring the safety of those around it.

- No barriers, no cages, no zones
- First safe robot by design

Data sheet is here available



IRB 14000



Human Robot Collaboration

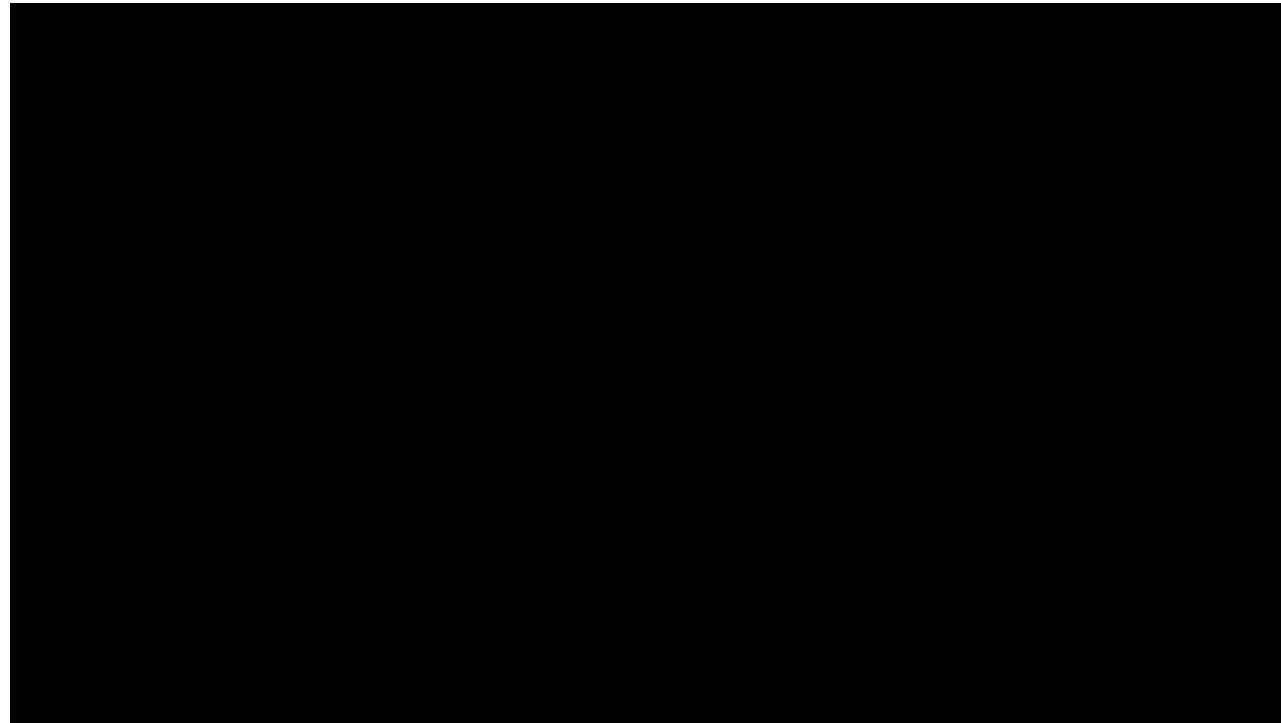
Continuous Lead-Through Programming



YuMi inherently safety combined with highly powerful RAPID language

Human Robot Collaboration

Continuous Lead-Through Programming



YuMi inherently safety combined with highly powerful RAPID language

ABB - Robotica Educational

Impara con ABB



Human Robot Collaboration

24 – 2 – 2021