



Wireless: Reliable Factory Automation

# What is Hindering Deployment? Challenges. Applied Research.

# ABB STOTZ-KONTAKT GmbH

## Today's Panelist

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# ABB: Wireless Factory Automation with WISA

Concept = Cable Reduction = Reliability = Productivity

Range approx. 5 m

PLC, eg. AC500

Base Station

Amount of wires in a plant

Level	Amount of wires
Plant Intranet or Internet	1
Control Network	10
Fieldbus Level	100
Machine- and Device Level	1,000
WISA - Wireless Interface to Sensors and Actuators	10,000
Sensors with integrated AS-I-Interface	100,000
Standard Sensors, Actuators	100,000

An Easy System Concept for Realtime Communication for Sensors and Actuators

# ABB: Wireless Process Automation

## WirelessHART for Sensors and Actuators



# Wireless in Factory Automation Today and in 2012 and 2014

## Today:

- WISA installations mostly in Automotive Industry
- ABB core businesses use WISA in own manufacturing, see YouTube
- Projects in industry and university run without complaints
- Awareness increases – acceptance is there and grows slowly  
Early Adopters are now in our marketing & sales focus
- Retrofits to overcome production failures are easy to win

## 2012:

- Early Majority uses Wireless, because constant marketing convinced buyers

## 2014:

- Wireless is Commodity and everybody uses it like a Miniature Circuit Breaker

# Issues Hindering Wireless Deployment

## Concerns about the Unknown

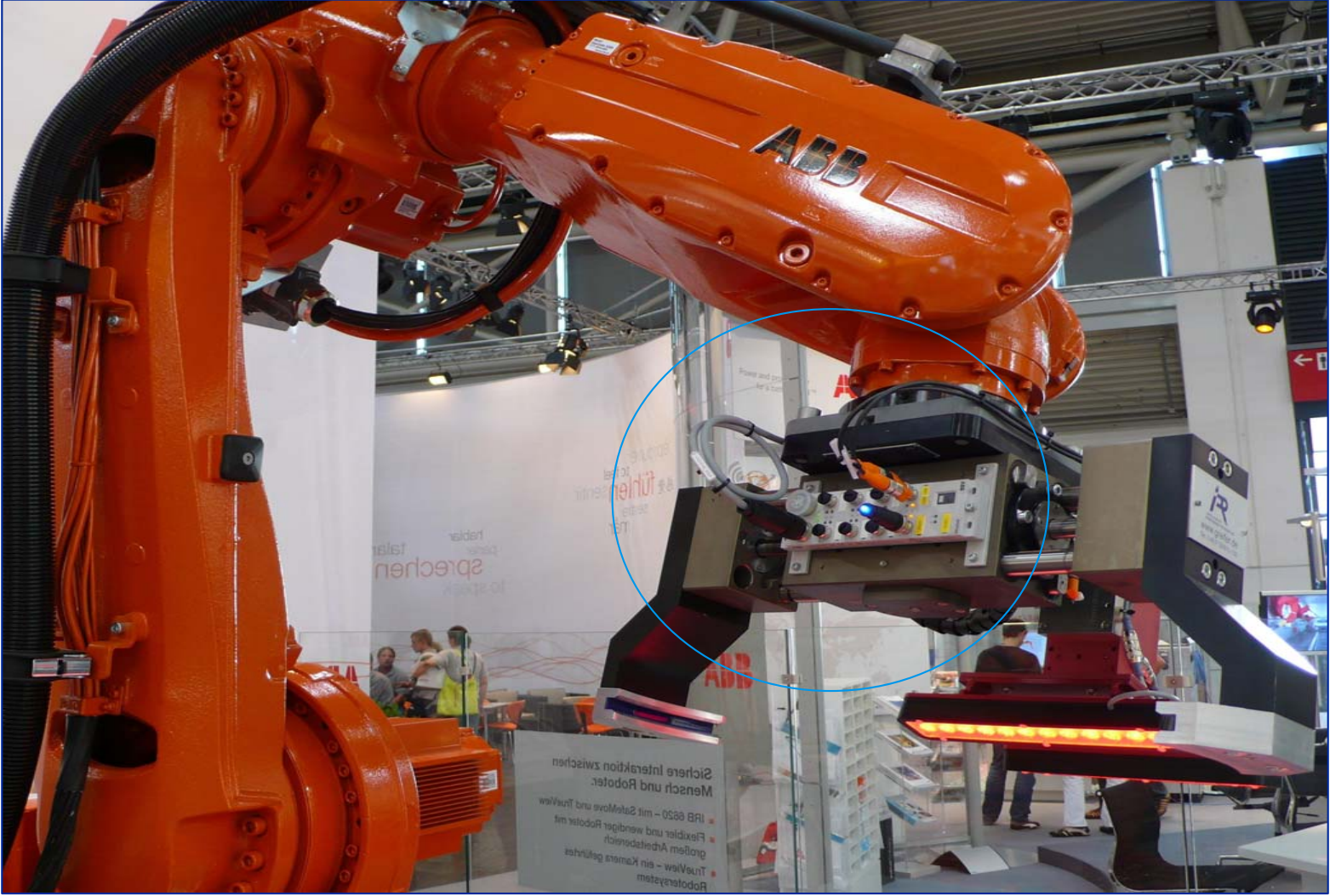
### We learned:

1. Let others try first!
2. My discipline is different from what it needs for your stuff.  
(I am mechanics, not electricians, not IT, not radio communication.)
3. I have no time for something so new, so unknown.
4. Standards missing, feel uncomfortable because no alternative, no second source
5. It costs more!?

### Applied Research can help by:

1. Do research on „where improvements are urgently needed“, work on use cases
2. Map different Wireless Solutions to Factory Automation Use Cases to help potential users to choose the most suitable wireless solution
3. Communicate the success stories of prototype use cases to potential users

# Endeffector with WISA Example



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