

**BIBA**

## **Industrial Internet of Things**

Enabling Technology for Smart Products and Factories

Marco Lewandowski

## What is LogDynamics Lab?

Demonstration and Application Center for Key Technologies in Production and Logistics

## What is BIBA?

Independent Research Institute linked to the University of Bremen

- 150 Researchers
- Production and Logistics

We understand your challenges...

We know the latest technologies...

We develop solutions together with you...

We transfer our research results and knowhow...

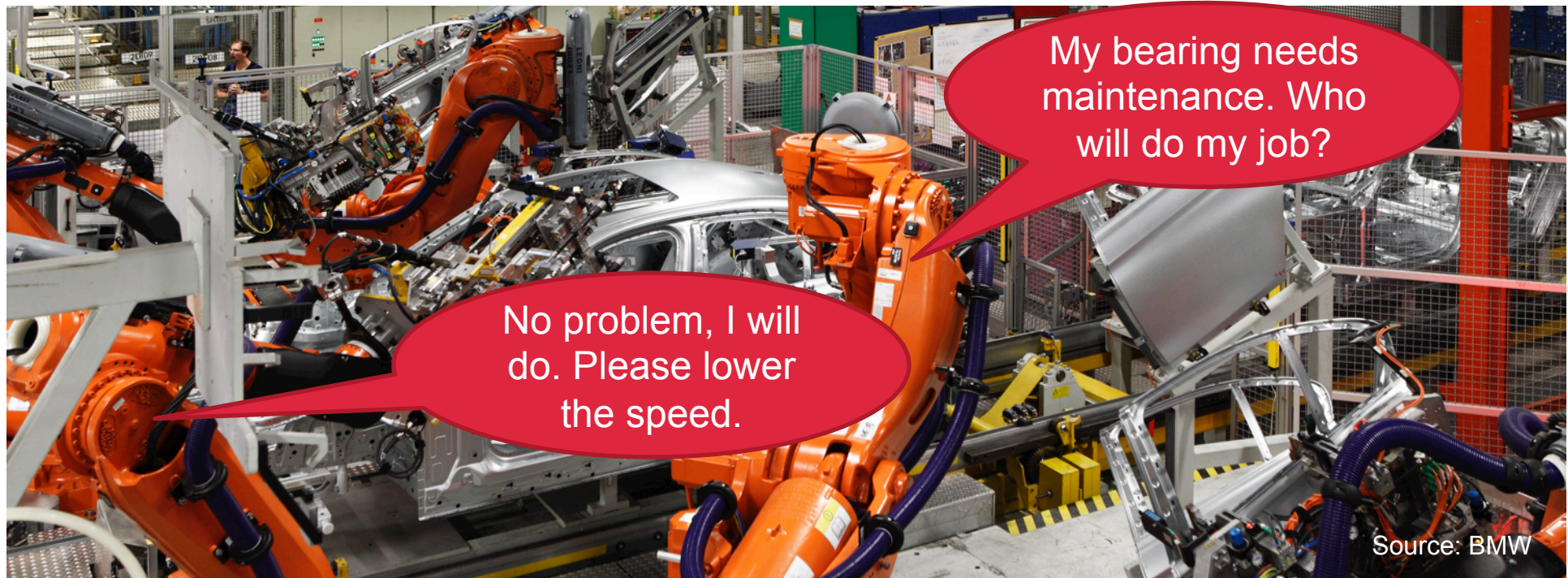
# Internet of Things



- Developing everyday things to **Smart Connected Products**
- **Industrial Internet of Things** effects diverse sectors
  - Manufacturing, Automotive, Aviation, Energy, Health, ...

## Industry 4.0

- German perspective to disruptive changes in the industry
  - Automotive, Aviation, Automation & ERP
  - Driven by the wish of further efficiency



## Beyond technology

- New Competitors
- Forces of the suppliers
- Forces of the customer
- Threads due to substitute products and services
  
- ◆ **New Business Models**
- ◆ **Need for strategies**
- ◆ **Organizational change**
- ◆ ...

HBR.ORG

# Harvard Business Review

OCTOBER 2015  
REPRINT R1510G

## How Smart, Connected Products Are Transforming Companies

The operations and organizational structure of firms are being radically reshaped by products' evolution into intelligent, connected devices.  
by Michael E. Porter and James E. Heppelmann

**Further Reading:** M.E. Porter, J.E. Heppelmann: How Smart, Connected Products Are Transforming Companies

# Smart connected things – one example

**Spargelanbau 2.0**

In nur drei Wochen Entwicklungszeit haben Experten von Bosch eine neue vernetzte Sensorlösung für den Spargelanbau entwickelt.

**BOSCH**  
Technik fürs Leben

Cloud

Sensor-Box

Erdspieß

Sensoren

Schwarze oder weiße Folienseite zur Temperaturregelung

Sensoren messen die Temperaturen im Erddamm. Die Sensor-Box funkt die Daten via Cloud aufs Smartphone des Landwirts.

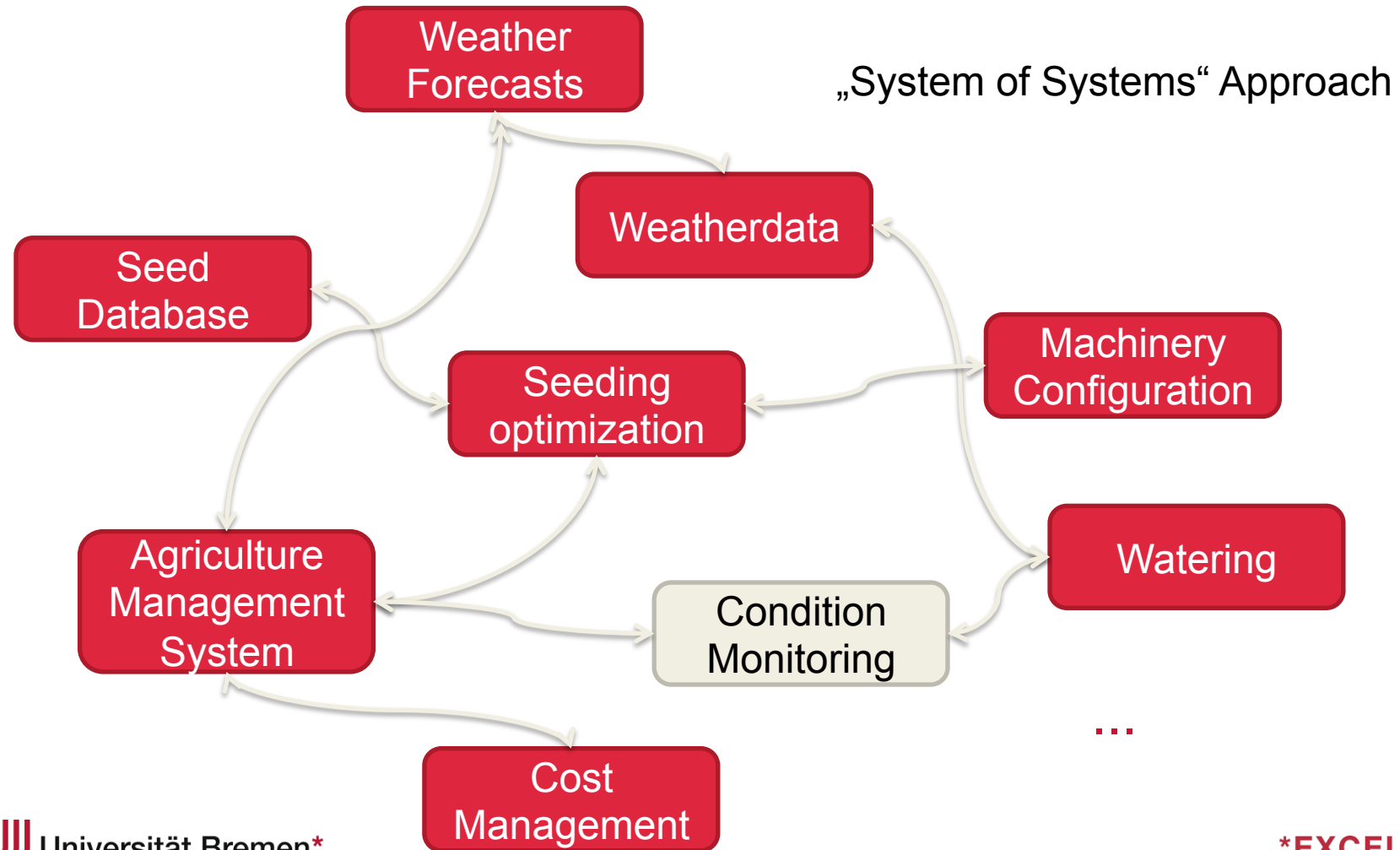


## Future opportunities and technology trends



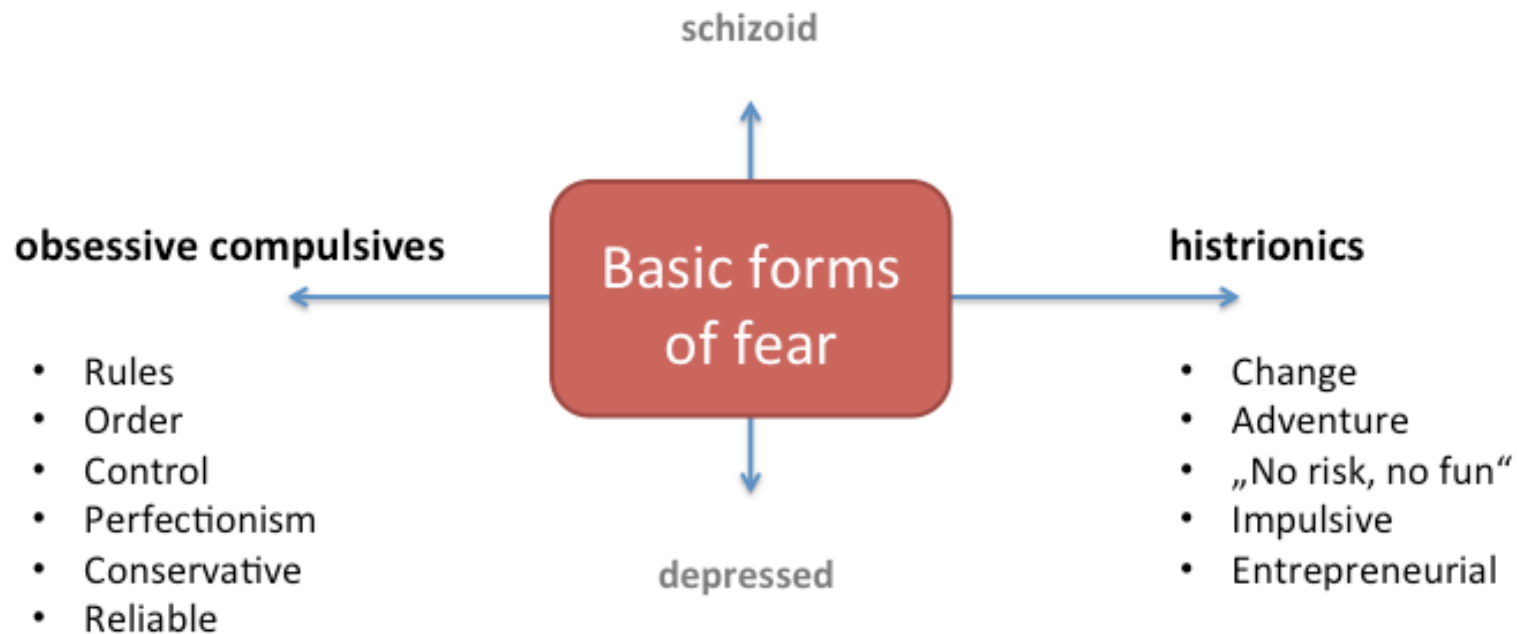
Source: IBM, <http://www.ibmdatahub.com/blog/what-blockchain-and-what-does-it-have-do-internet-things>

# Future opportunities in agriculture – a brief brainstorming





Conclusion:  
Germany compared to the rest of the world?!



Compare <http://www.omnisophie.com/wp-content/uploads/2014/02/DD208-Hysterisch-Zwanghaft.pdf>



**THANK YOU FOR YOUR ATTENTION!**

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