

The Industry 4.0 landscape in Baden-Württemberg

Dr. Jürgen Jähnert

Bwcon GmbH

bwcon



- ☐ Founded in 1997 by federal innovation agency and up to 2014 operated by innovation agency. Since 1.10.2014 bwcon GmbH.
- ☐ ICT/High-tech Network in Baden-Württemberg
 - ☐ 600 Members (most SMEs)
 - ☐ 71 Research institutions
 - ☐ 93 Start-Ups
 - ☐ Offices in Stuttgart, Villingen and Freiburg
 - ☐ Ravensburg and Mannheim planned



There was never a revolution in the Internet

... and I see no reason why there will be one now...

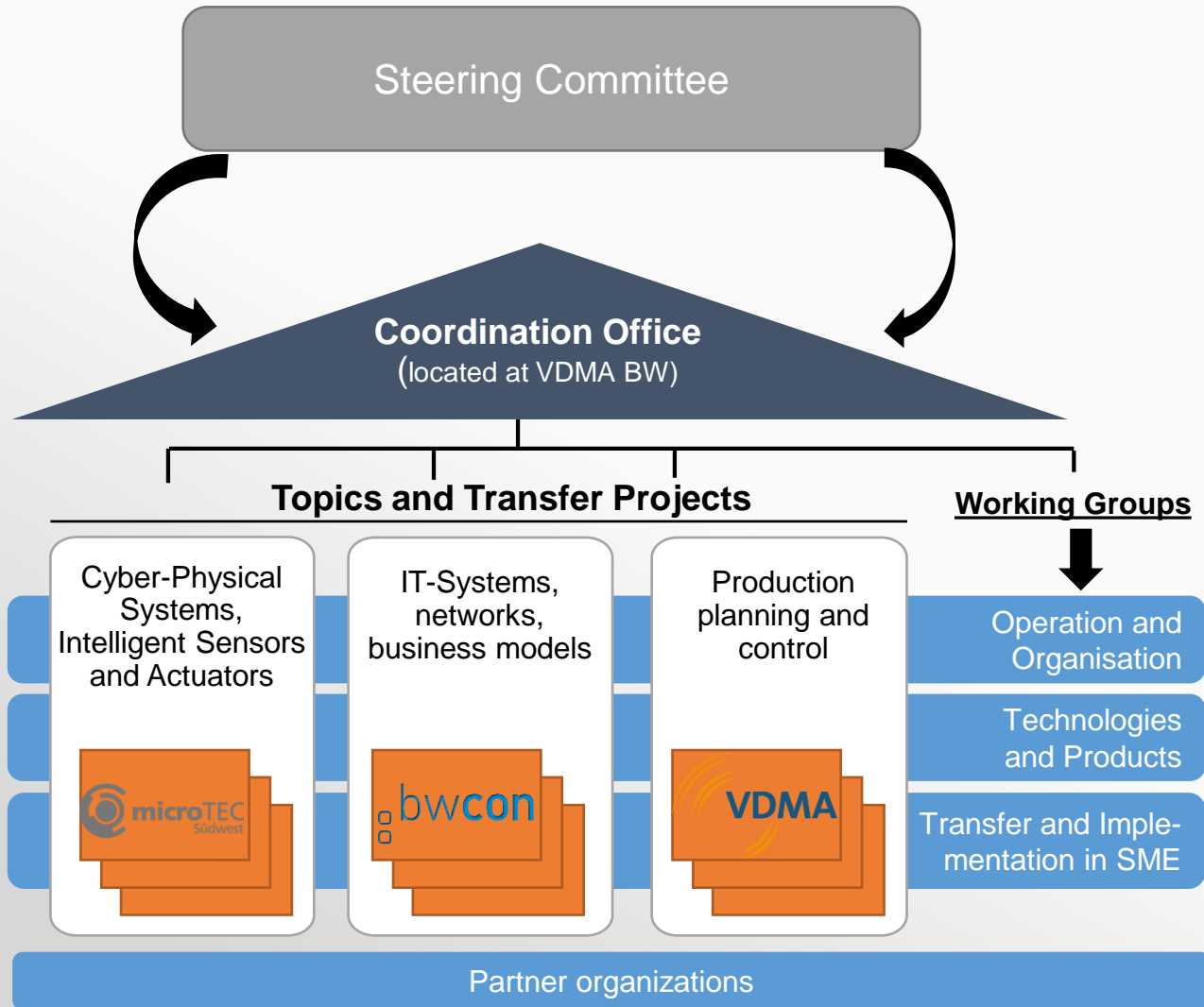
Baden-Württemberg at a glance

- GDP: 460 billion Euros
- Contribution of manufacturing industry to GDP: 33%
- Innovation investment: 4,8% of GDP in R&D
- 30% of all German patent applications
- Unemployment rate: 3,8%
- Export volume: 195 billion Euros
- Excellence in teaching and research:
 - More than 70 institutions of higher education
 - Over 100 non-university research institutions



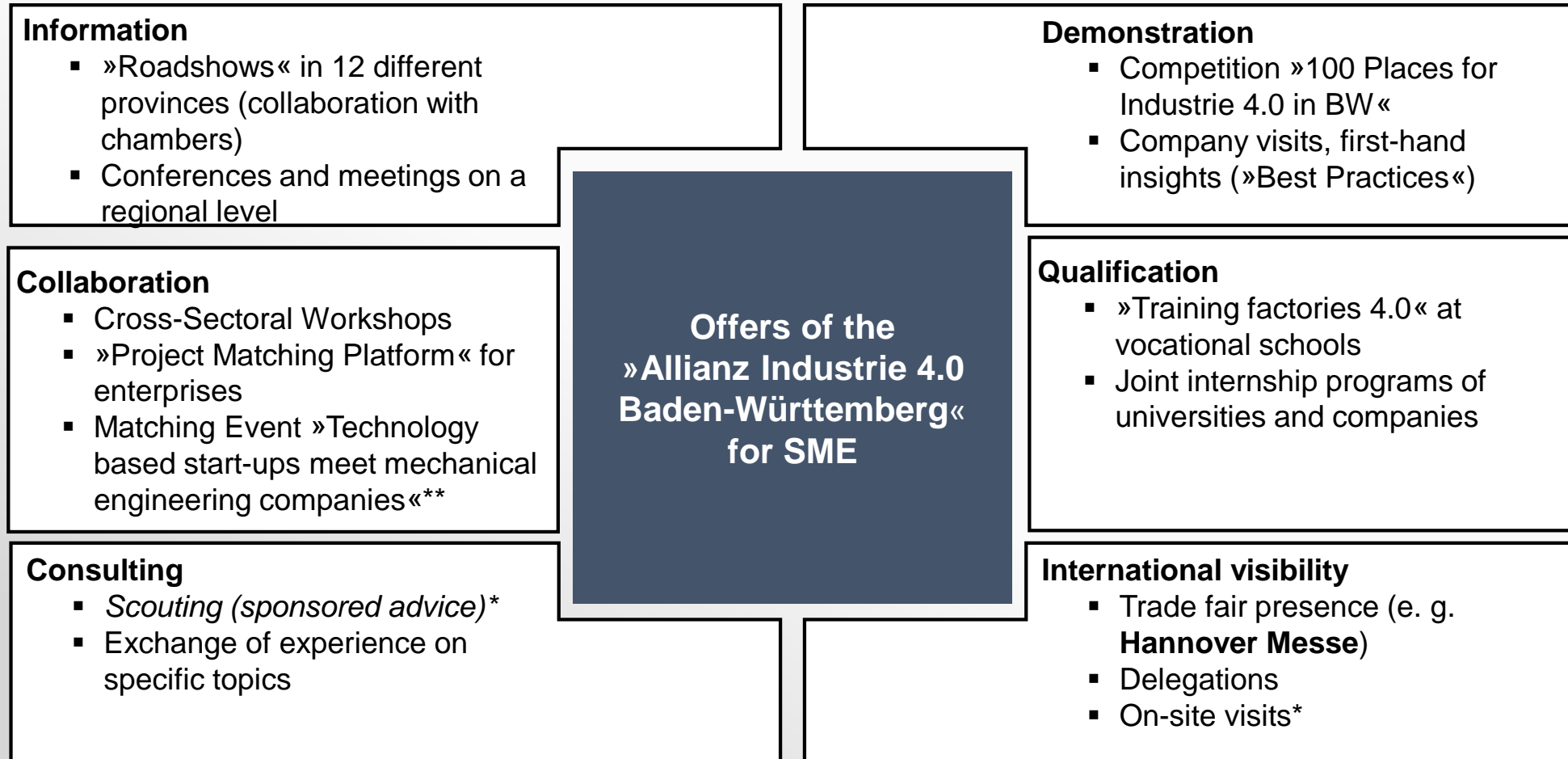
Source: Wittenstein AG, quattro GmbH, Carl Zeiss SMT

Structure of the »Allianz Industrie 4.0«



Measures to implement Industrie 4.0 in Baden-Wuerttemberg

Our services for companies

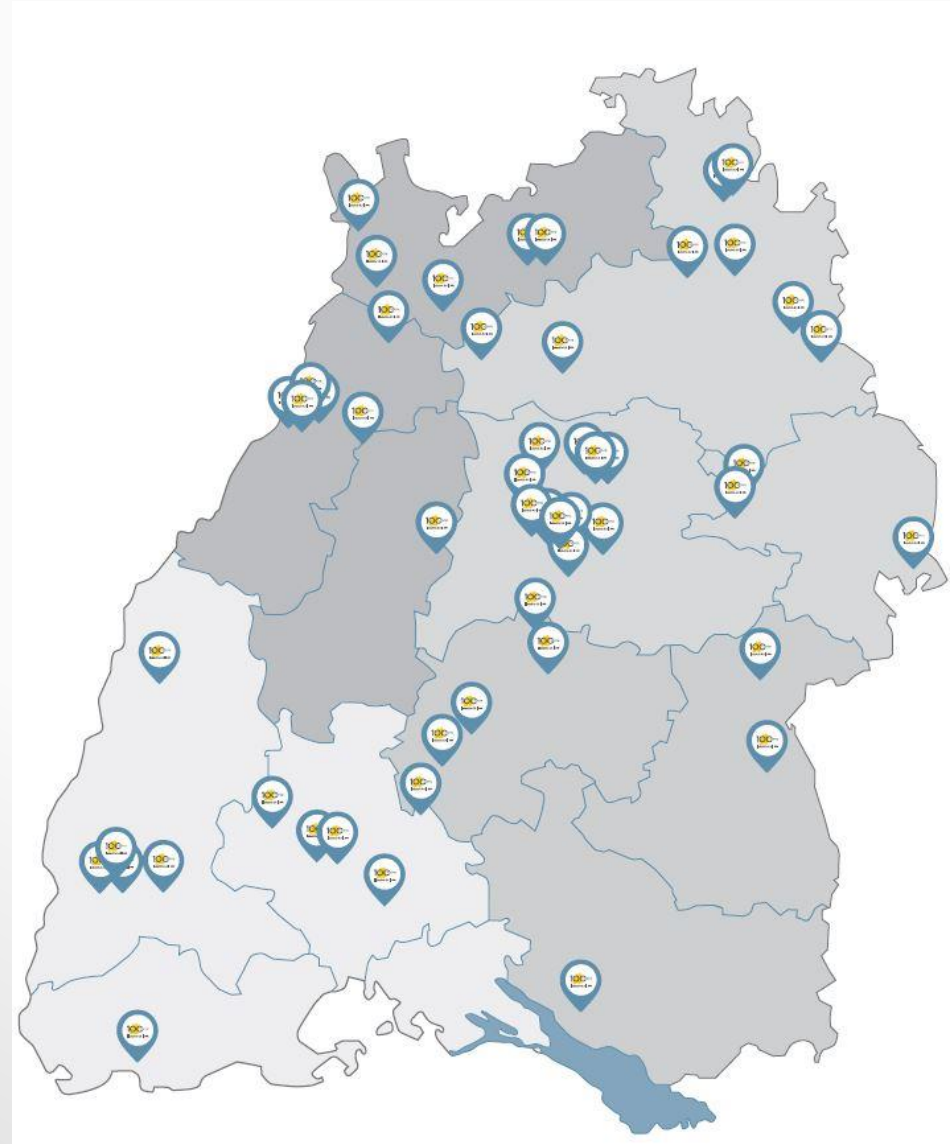


* Starting Q2/2017, ** Starting Q4/2017

Competition »100 places for Industrie 4.0«

»places where visions become reality«

- What we are looking for:
innovative and »tangible« Industrie 4.0 solutions
and use cases
 - New products (machines, components)
 - New production processes
 - New software and interconnection
 - New services and data driven business models
- Submission date on a quarterly basis
- Peer reviewed
- Public presentation of the use cases



Cross sectoral workshops

Thinking about new business models and new technologies

Initial Workshop in 2016

Mechanical Engineering



Automotive Industry



Initial Workshop in 2017

Mechanical Engineering



Medical Engineering

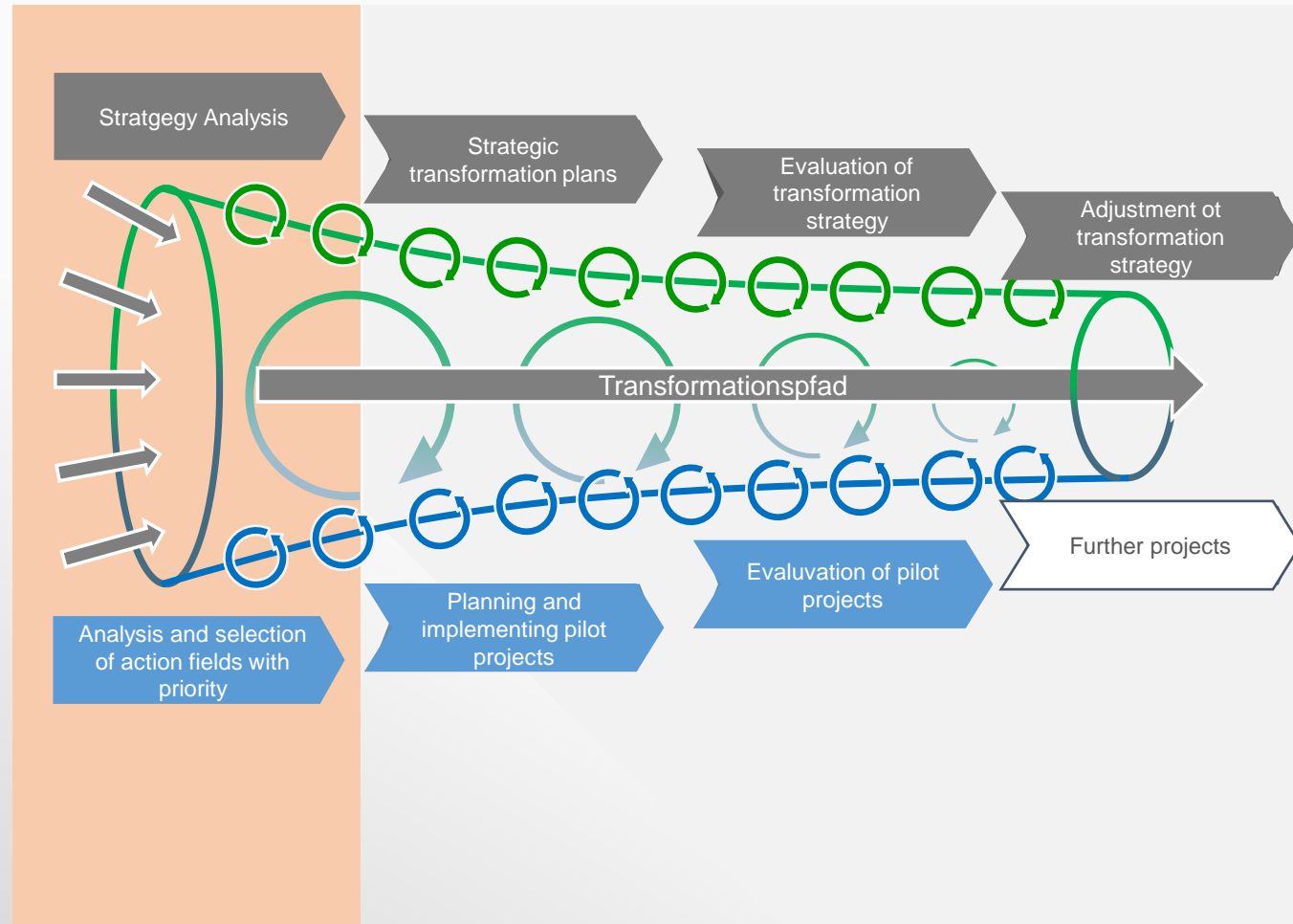


Bildquelle: Arburg, Balluff; Beckhoff, Universal Robots

Scouting: Initial advice for SMEs

Offer to SMEs

- Initial strategy workshop for SME
- Pool of well-chosen and certified advisors
- Support to develop digitalization projects
- Sponsored up to 50% by the government



- ☐ Companies lack accepting the need for change
 - ☐ Cloud Computing
 - ☐ IoT
 - ☐ Big Data
 - ☐ Mobility
- ☐ Are technological trends which allow incremental innovation
→ process automation (for sure not „revolution“)
- ☐ maturity level of a company unclear
 - ☐ Technology
 - ☐ Culture
- ☐ Technology allows to do thinks (we are familiar with) better
- ☐ Technology allows to attach existing value systems

Industrie 4.0

Technologie Anwendungsfeld	Integration	Prozesse	Data/Analytics	Geschäftsmodelle
Entwicklung / Engineering (Anbieter)				
Entwicklung / Engineering (Anwender)				
Produktion (Anbieter)				
Produktion (Anwender)				
Produkt (Anbieter)				
Produkt (Anwender)				
Logistik (Anbieter)				
Logistik (Anwender)				
After Sales (Anbieter)				
After Sales (Anwender)				
Wertschöpfungsnetzwerke (Anbieter)				
Wertschöpfungsnetzwerke (Anwender)				

Industry 4.0 from a US perspective

- ✓ IIC: Data centric architecture
- ✓ US: gather, own and manage the data
- ✓ Deploy platforms between the customer and the manufacturer
 - ✓ Own customer
- ✓ Reduce production cost

paradigm → transfer value creation from “products” to “services”

Focussing on Data would mean...



Quelle: Tilo Böhmann: Service-oriented Business Models - The value of use; verändert und erweitert

Problems / Challenges Allianz I 4.0 BW

- ☐ Most companies talk about industry 4.0 but in an incremental manner

basically do „Industry 3.0“ and refine their optimizatziön process

- ☐ → for sure not revolutionary 😊
- ☐ Disruptive US thinking is dangerous for our companies in Europe
- ☐ We have to leave the „comfort zone“

Thank You

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Jürgen Jähnert (jaehnert@bwcon.de)

Member of the SMART Space consortium

