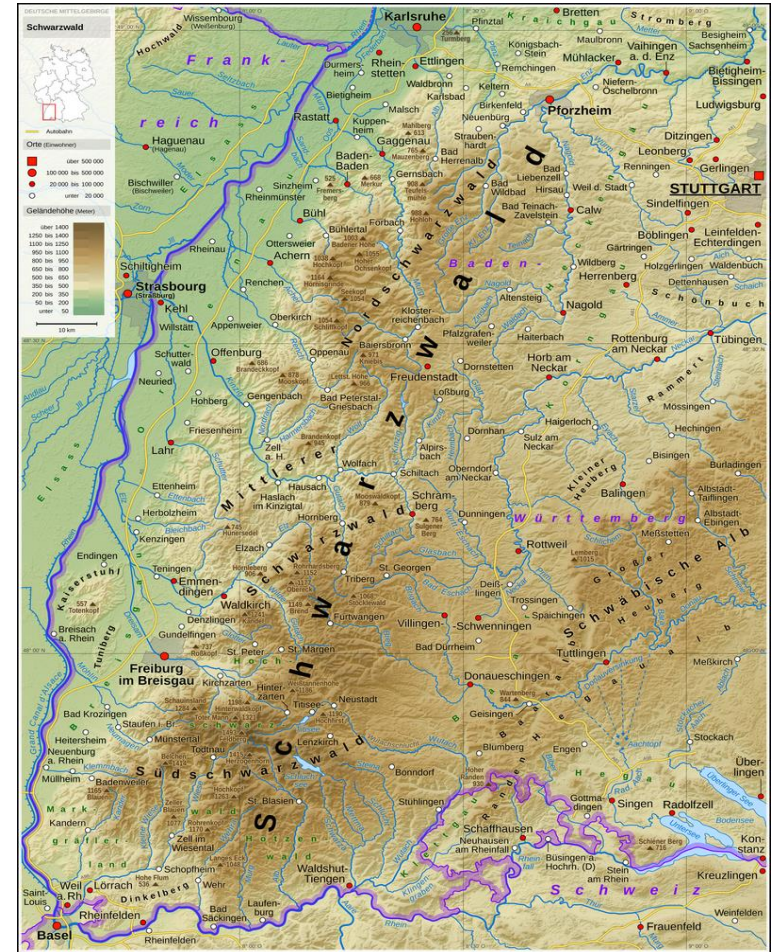# THE BLACK FOREST – A SPECIAL PLACE FOR CROSS-CLUSTER PRODUCTION

HANSJÖRG DREWELLO & TANJA KAUFMANN
8TH OF JUNE 2018

AGENDA

1. The Black Forest Region

2. Historic economic development in the Black Forest

3. Development of Black Forest Clusters today

4. Cross-Cluster-connections

5. Presentation of Porters Diamond for the region

6. Relevant trends for the future of the clusters
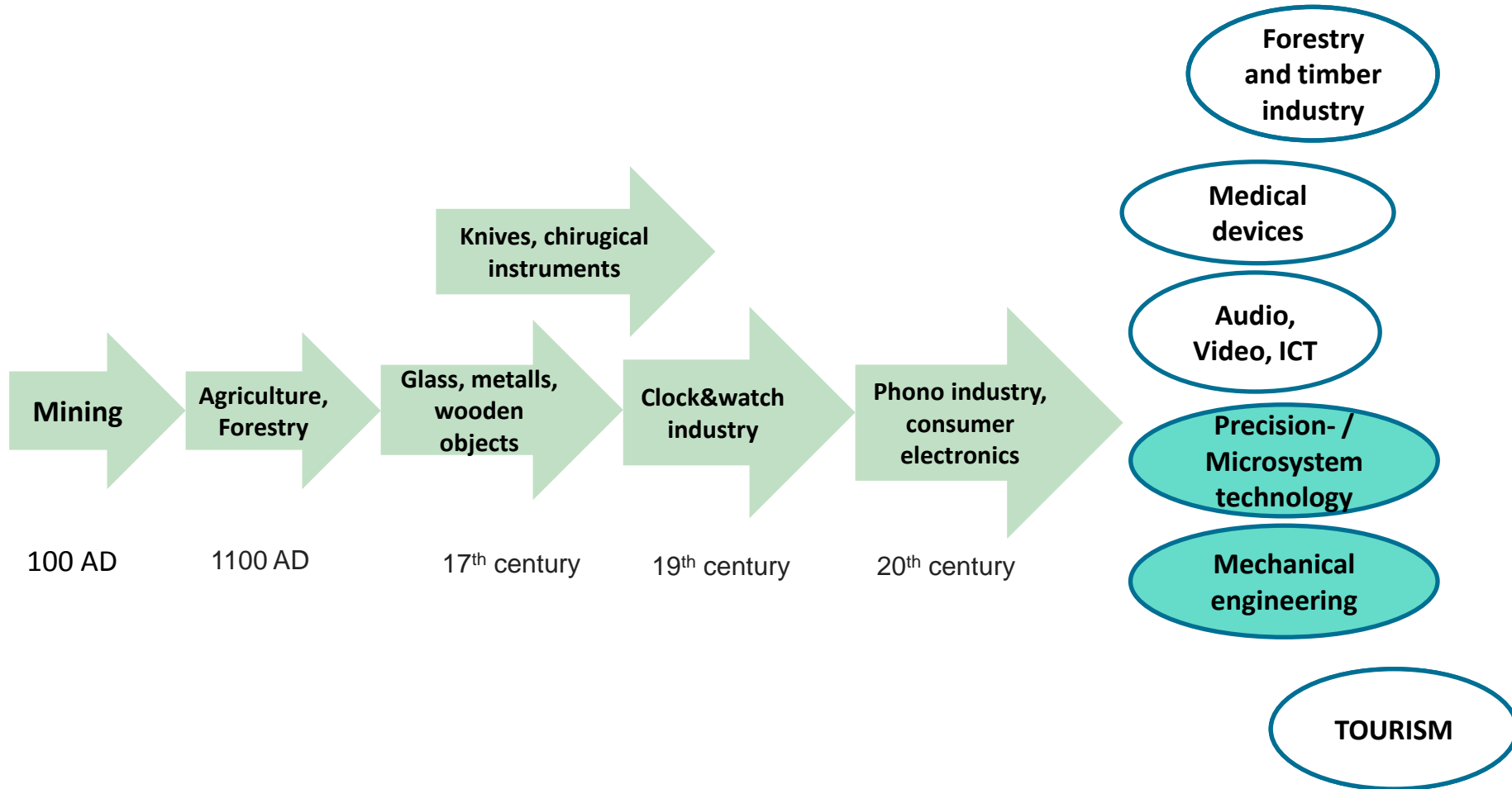
7. Conclusion

1 THE BLACK FOREST REGION

Sources: https://www.schwarzwald-tourismus.info/schwarzwald-karte
Thomas Römer, CC BY-SA 3.0, https://commons.wikimedia.org/w/index.php?curid=49561686

1 The Black Forest Region

Definition of space of analysis

2. Historic economic development in the Black Forest

BLACK FOREST DIAMOND

Mining → Agriculture, Forestry → Glass, metalls, wooden objects → Clock&watch industry → Phono industry, consumer electronics →

Knives, chirugical instruments

100 AD   1100 AD   17th century   19th century   20th century

Forestry and timber industry

Medical devices

Audio, Video, ICT

Precision- / Microsystem technology

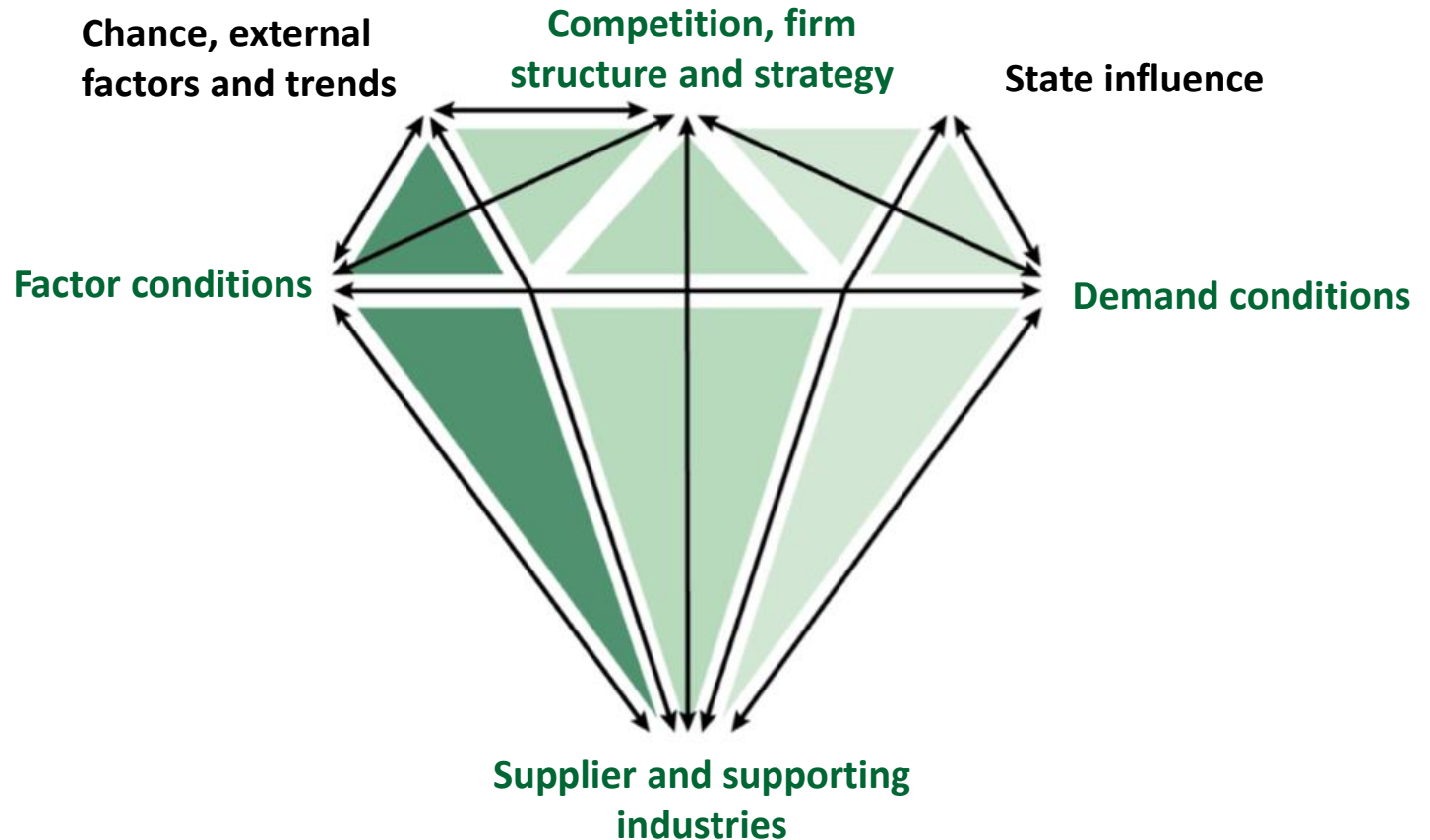Mechanical engineering

TOURISM

3 Development of Black Forest Clusters

BLACK FOREST
DIAMOND

Black Forest-Cluster	Employees in 2008	Employees in 2017	Change 2008 - 2017	localization quotients for the local concentrations :
Mechanical Engineering	78.882	86.708	+9,9%	3,1 Schwarzwald-Baar, Ortenau, Freudenstadt, Lörrach, Tuttlingen
Tourism	41.276	55.402	+34,2%	2,5 Baden-Baden, Freudenstadt, Ortenau, Breisgau-Hochschwarzwald
Precision Engineering	28.721	34.997	+21,9%	4,9 Schwarzwald-Baar, Emmendingen
Audio/Information and Communication Technologies-VR	27.479	36.848	+34,1%	3,5 Karlsruhe Stadt
Forestry and timber industry	22.138	19.976	–9,8%	2,4 Waldshut, Ortenau, Calw, Freudenstadt
Medical devices	21.398	25.689	+20,1%	5,1 Tuttlingen, Schwarzwald-Baar, Rottweil

Chance, external factors and trends

Competition, firm structure and strategy

State influence

Factor conditions

Demand conditions

Supplier and supporting industries

Trends and external factors

- *Technological trends as digitalisation, 3-D-Printing, Industry 4.0, Smart Anything Everywhere (SAE), E-Mobility*
- *Migration*
- *Individualism/nature focus*
- *Growing international economy*
- +/- *Climatic change*
- - *Demographic development*

Strategy, Structure & Rivalry

- Position in Baden-Württemberg
- Strong local and regional rivalry, many indirect & direct competitors in niches
- Many SME's as international market leaders
- Common identity and knowledge base facilitates cooperation and open innovation
- Bureaucratic hurdles and high taxes
- Restrictive labor regulations
- Weak dynamic in start-ups-foundations

Demand conditions

- Regional & national demand is very sophisticated and strong through interconnected branches, through reciprocal demand of the clusters
- Proximity to clients
- Black Forest Region has international fame
- Positive reputation of products „Made in Black Forest"
- Integration in domestic & EU-market
- Diverse interregional B2B-market
- Dependency on car industry

Factor conditions
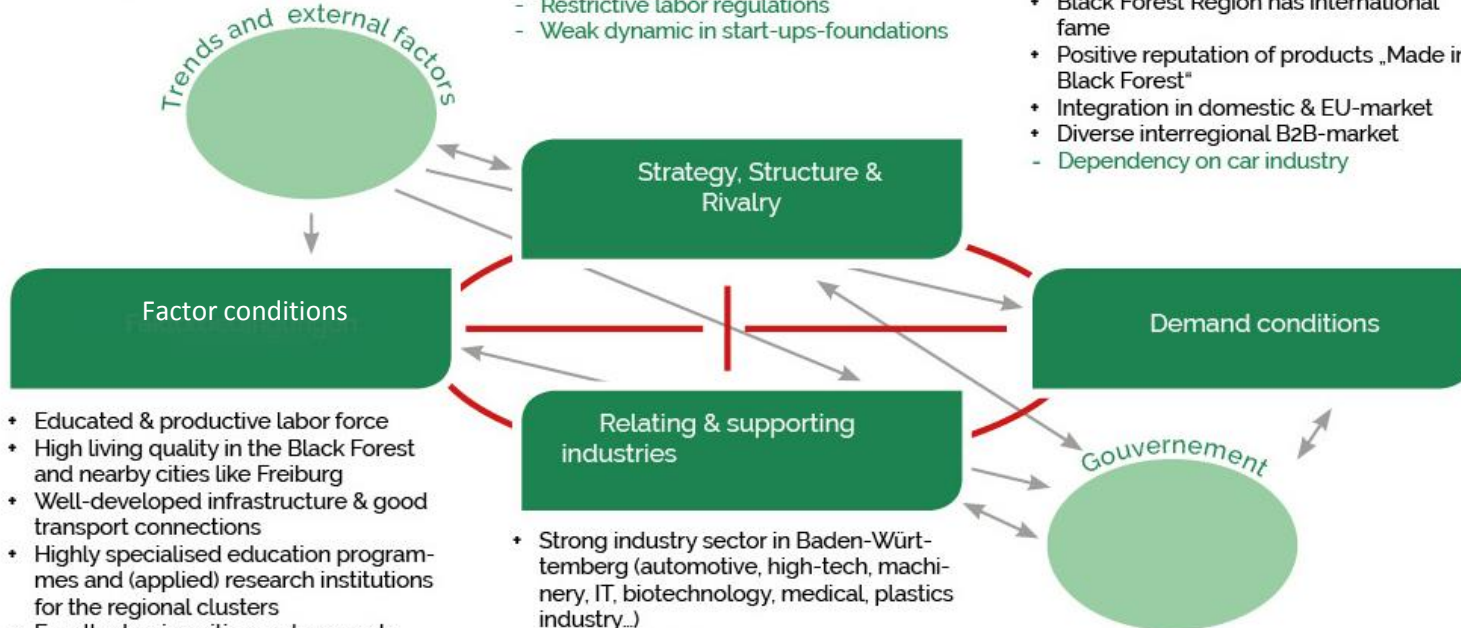
- Educated & productive labor force
- High living quality in the Black Forest and nearby cities like Freiburg
- Well-developed infrastructure & good transport connections
- Highly specialised education programmes and (applied) research institutions for the regional clusters
- Excellent universities and research institutes
- Weak broadband
- Lack of qualified personnel
- Demographic development & attractivity

Relating & supporting industries

- Strong industry sector in Baden-Württemberg (automotive, high-tech, machinery, IT, biotechnology, medical, plastics industry...)
- performant SME's
- strong business support organisations and networks
- weak service sector

Gouvernement

- *Funding programs for innovation in many future themes*
- *Fundings for digitalisation / Digi-Hubs*
- *Regional government face similar challenges as the companies*
- - *Constructions approvals for business are in conflict with nature protection laws*
- - *Intransparent business support landscape*
- - *International political situation (trade wrestrictions USA, Iran)*

6. Relevant trends for the future of the clusters

- Internet of Things, Cyber Physical System, Smart Everything Everywhere

- DIGITALISATION→ concerns products, services, processes and business models in all clusters!

- 3-D-Printing, new materials, miniaturisation

- Smart Manufacturing → INDUSTRY 4.0, predictive maintainance

- Virtual, Augmented and Mixed Reality

- SUSTAINABILITY & Ressource effiency → sustainable consumption, tourism, production, Energy Harvesting

- Change in mobility → alternative drive technologies like e-mobility, autonomous vehicles

- Social Trends : urbanisation, individualisation, demographic change

Big potential for facing future challenges together

- History of Black Forest has shaped it's clusters and their ability to adapt
- Strong advantage in the common identity & knowlege base for innovating together and use synergies
- cross-clustering could be enforced in some cases (f.ex. forestry & timber)
- The existing culture of cooperation should be used to face future challenges like digitalisation and develop „Black Forest Solutions" to the technological and social trends

BLACK FOREST 💎
DIAMOND

THANK YOU FOR YOUR
ATTENTION!