Learning how to establish global knowledge pipelines in multinational companies. Three case studies from the German automotive industry.

Eike W. Schamp and Andreas Stamm, German Development Institute – Deutsches Institut für Entwicklungspolitik (DIE)

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- Is offshoring of knowledge based activities in multinationals the „next wave of globalization“?

- In answering to the question, two dimensions have to be discussed,

  i.e.,

  - the diversity of contexts according to sector and knowledge base

  - need for knowledge management on the shop floor and in R&D

Global Knowledge Pipelines

1. Framing – specifics of the automotive sector
2. Synthetic type of knowledge base
3. Improving the learning capacities of global subsidiaries
4. Learning in international innovation networks
5. Conclusions

Global Knowledge Pipelines

Framing the cases - the German Automotive Industry

- Europe's leading automobile production system (5.5 m cars in 2008), fourth largest producer in the world
- OEM „cluster" of 3 premium model producers added by 3 volume producers
- Strong base of automotive suppliers at first-, second-, and third-tier level

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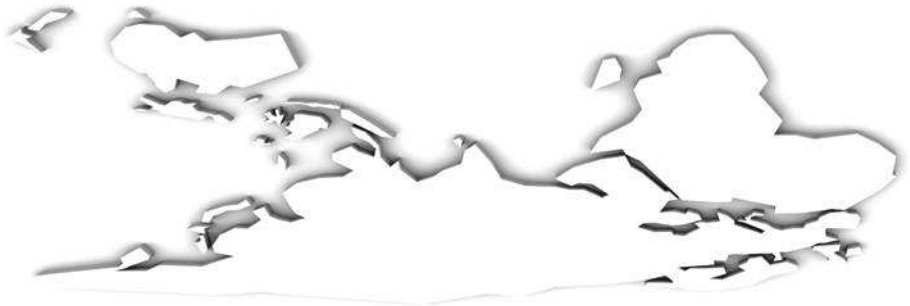
Characteristics of synthetic knowledge bases

• *Rationale for knowledge creation*	applying or combining existing knowledge in new ways to solve problems
• *Knowledge development and use*	cross-disciplinary, experience-based,
•	inclusive
• *Interplay between actors*	interactive learning with customers and suppliers
• *Knowledge content*	partially codified knowledge, strong tacit component



Source:
Asheim et al. 2010, Druid Summer Conference 2010

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Learning in production

Principal aim at improving the local capacities to insert production of new products at high quality standards

- traditionally: **expatriates, global support teams**

- more recently: training of **inpatriates**

- recently: „**competence management**"
  for standardisation in the learning of local workforce abroad,
  global governance through **primary plants** at home

Consequences: Company specific global standardisation of work processes and central governance of process innovation

Global Knowledge Pipelines

Phasing in global knowledge management

Phase 1

Clear–cut **definition of workplace requirements** (not only in production but other functions also) in order to explore the state of performance and define kind and size of deficiencies as a base for the development of curricula in training. The standard base for the definition of workplace requirements are workplaces in "lead plants" in Germany or Europe.

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Phasing in global knowledge management (continued)

Phase 2

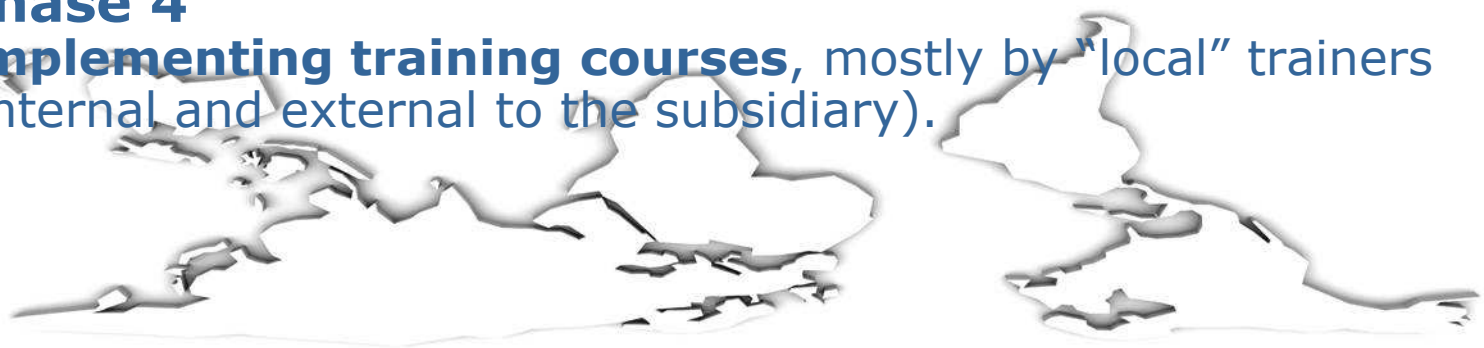
Adaption of kind and size of training requirements to the variety of local situations abroad, generally pursued by a joint team from the headquarters and large subsidiaries abroad.

Phase 3

Co-development of curricula for training by human resource managers from the headquarters and subsidiaries abroad.

Phase 4

Implementing training courses, mostly by "local" trainers (internal and external to the subsidiary).



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Ways for the improvement of learning in innovation networks

- carefully fragmenting tasks in engineering between the more "tacit" and the more codified parts
- either training qualified persons from abroad or giving grants to foreign students in Germany and appointing them afterwards
- appointing boundary spanners specialised in intercultural communication and the company-specific product technology
- elaborating "globally" standardised manuals for procedures
- and IT-based check-lists

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Conclusions

- Companies are increasingly driven to relocate knowledge intensive activities both in production and product development to emerging economies
- Relocation of knowledge intensive activities is a complex task when the principal knowledge base in the sector is synthetic
- Companies are afraid of losing too much of their company-internal, "tacit" knowledge and, therefore, attempt to maintain strong control on knowledge intensive activities from their home country
- Companies try to overcome the intercultural interfaces mainly by improving interhuman communication through standardising contents ("codification") and training ("socialisation")

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Summing up

- Companies follow a cautious learning path in global knowledge management
- There is no change in the traditional centre-periphery model of the global division of labour in the sector

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Thanks for your attention/questions

Eike W. Schamp and Andreas Stamm
German Development Institute – Deutsches Institut für Entwicklungspolitik (DIE)
Schamp@em.uni-frankfurt.de

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