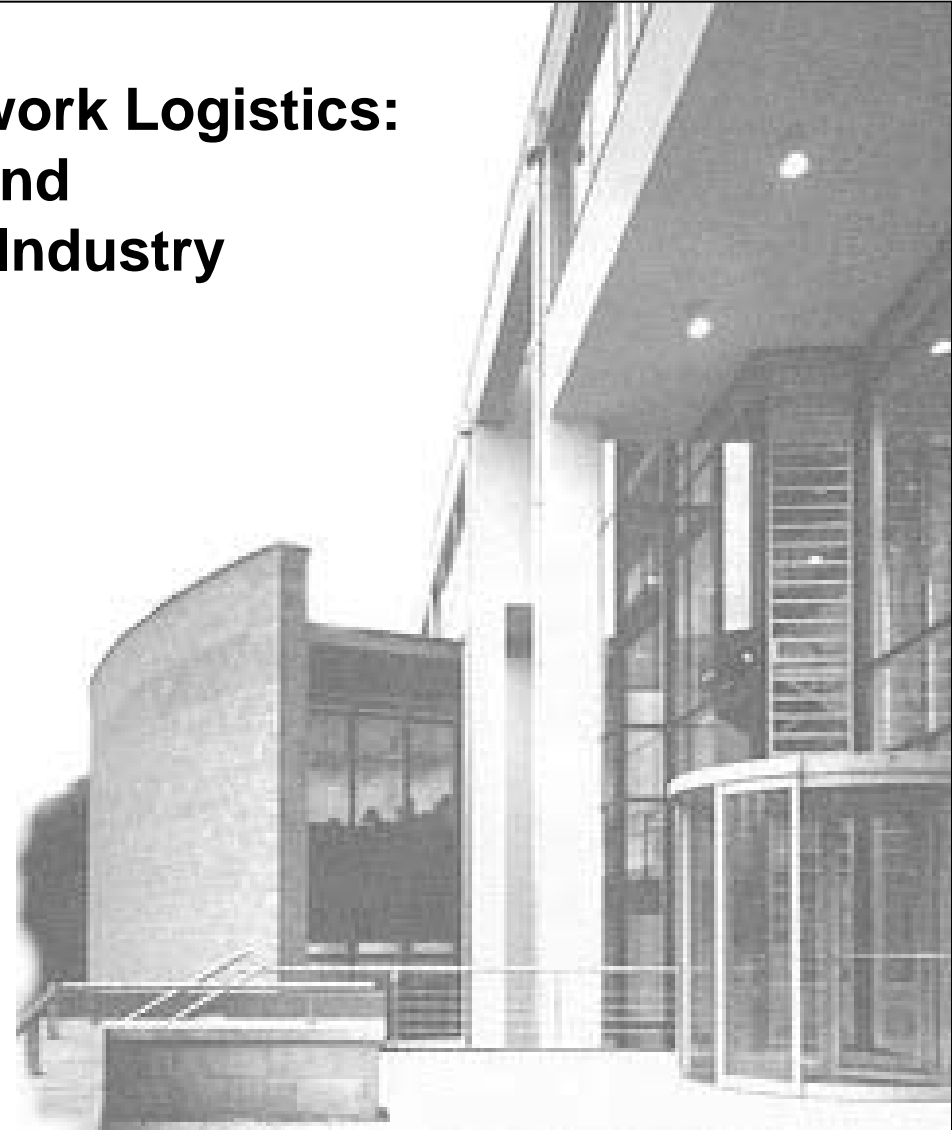


Industry Qualifications Framework Logistics: Explicit and Tacit Knowledge and Qualifications in the Logistics Industry

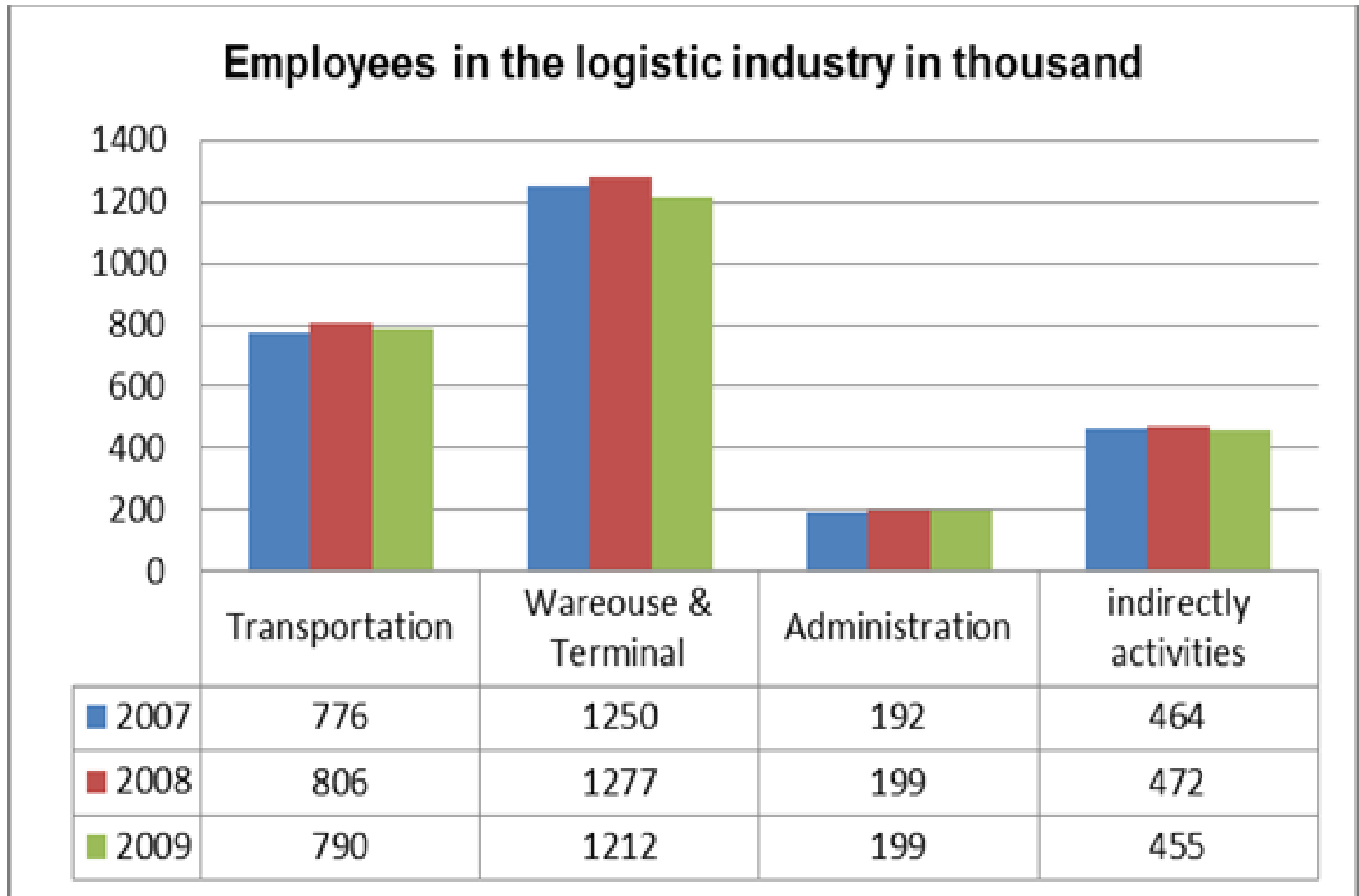
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08-09 September 2011
TU Hamburg-Harburg

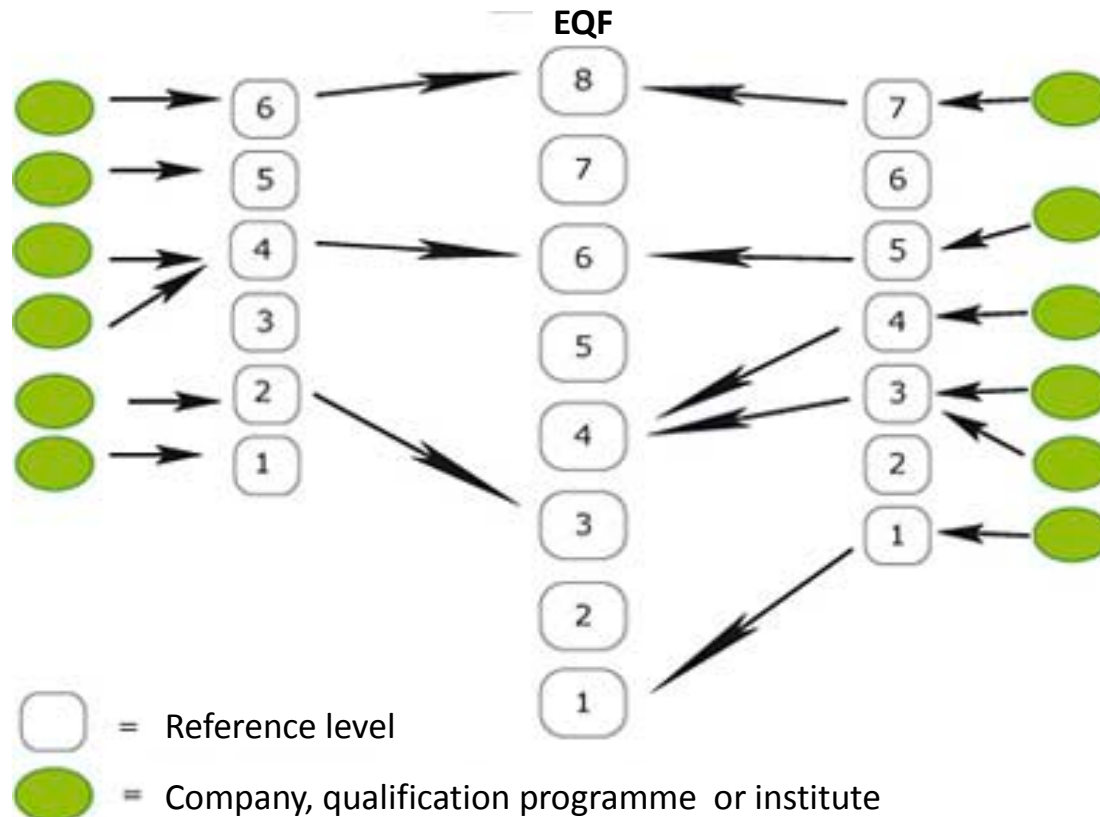


1. Introduction
2. EQF and IQF Logistics
3. Survey Tacit and Explicit Knowledge
4. Knowledge Circle for Learning Organisations
5. Conclusion

- Logistics as a highly **labor-intensive service ,industry‘** with about 2.7 million employees in Germany
- Increasing **qualifications requirements** due to technology implementation, global integration, strategic planning and requirements e.g. sustainable logistics
- **SME** as main body of logistics companies with suboptimal HR and qualification structures
- *Research question:* How could an IQF logistics help?
Method: Inquiry into tacit and explicit knowledge in log.



- Education concept trend: European Qualifications Framework, National / German Qualifications Framework



▪ Suggestion for an **Industry Qualifications Framework**
Logistics (see HICL 2010: Klumpp/Keuschen/Peisert)

Level	1	4	8
Descriptors Logistics	<p>He/she has basic skills to carry out simple logistics operations under strict supervision like transport, transition handling, warehousing and picking activities in structured and stable contexts</p>	<p>He/she has cognitive and practical skills required to generate solutions to specific problems by exercising self-management in contexts that are usually predictable, but changing, supervise routine work of others: partial redesign of a supply chain or planning new inbound / outbound routing destinations as well as simple technology / IT tasks (with long-term logistics experience)</p>	<p>He/she has most advanced skills, including synthesis / evaluation required to solve critical problems in research / innovation and to redefine knowledge or practice in logistics allowing him/her to demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and commitment new ideas or processes at the forefront of work contexts including independent planning and supervision of large logistics companies, logistics research or consulting projects with several international networks and implications, communicating also with industry, trade and politics</p>

- Activity-based research in two logistics companies, 22 employees included (blue and white collar)
- Survey example: work tasks / process related

	Team: Office clerk (in %)	
	Tacit knowledge	Explicit knowledge
Clustered processes		
Organisation of express delivery		
Invoicing express delivery		
Organisation of second delivery		
Processing arrival report		
Processing delay of trucks		
Processing terminal control report		
Delivery statistics		
Track and trace of shipment		
Transit time inquiry		

- Results (**blue** collar): Large differences between different companies

Allocation of explicit and tacit knowledge			
Company no.2 n=6	Warehouse and terminal staff	Tacit knowledge	Explicit knowledge
	Maximum in %	100,00	100,00
	Average in %	71,47	28,53
	Standard Deviation in %	24,38	24,38
	Minimum in %	40,00	0,00
Company no.1 n=8	Warehouse and terminal staff	Tacit knowledge	Explicit knowledge
	Maximum in %	100,00	100,00
	Average in %	52,64	47,36
	Standard Deviation in %	17,27	17,31
	Minimum in %	10,00	10,00

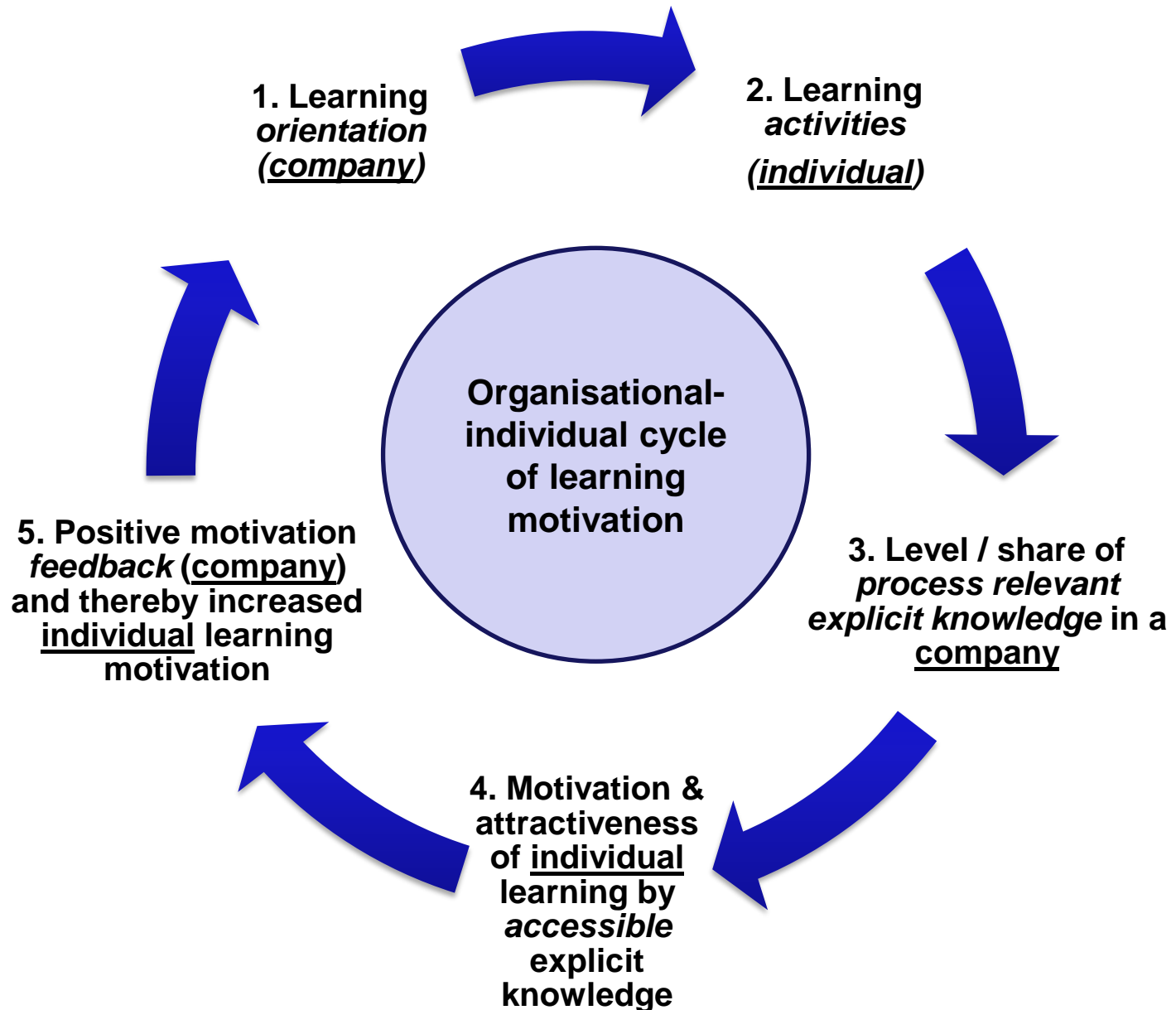
- Results (**blue** collar): Large differences between different companies – and even business units / locations

Allocation of explicit and tacit knowledge			
Company no.1 n=4 City M	Warehouse and terminal staff	Tacit knowledge	Explicit knowledge
	Maximum in %	90,00	100,00
	Average in %	38,98	61,02
	Standard Deviation in %	16,92	20,01
	Minimum in %	0	10
	Warehouse and terminal staff	Tacit knowledge	Explicit knowledge
Company no.1 n=4 City C	Warehouse and terminal staff	Tacit knowledge	Explicit knowledge
	Maximum in %	100,00	100,00
	Average in %	62,08	37,92
	Standard Deviation in %	10,91	19,52
	Minimum in %	0	0

- Results (**white** collar): Larger differences between different companies for **office** processes in logistics

Allocation of explicit and tacit knowledge			
Company no.2 n=4	Office clerk	Tacit knowledge	Explicit knowledge
	Maximum in %	100,00	100,00
	Average in %	64,54	35,46
	Standard Deviation in %	32,67	32,67
	Minimum in %	1,00	0,00
Company no.1 n=4	Office clerk	Tacit knowledge	Explicit knowledge
	Maximum in %	70,00	90,00
	Average in %	37,00	63,00
	Standard Deviation in %	15,76	15,76
	Minimum in %	10,00	5,00

4. Knowledge Circle



- Company strategy and processes may strongly **influence share of explicit knowledge** in logistics business units (through software, documentation)
- Process costs and quality may be affected severely
- EQF and IQF implementation also highly interact and correlate with such „learning organisations“ focused on explicit knowledge and open learning cultures
- Business wisdom: Not larger companies succeed but faster (learning) ones – especially in future logistics

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Thank you for your kind attention.

