



# Controversial Innovations and Organizational Change

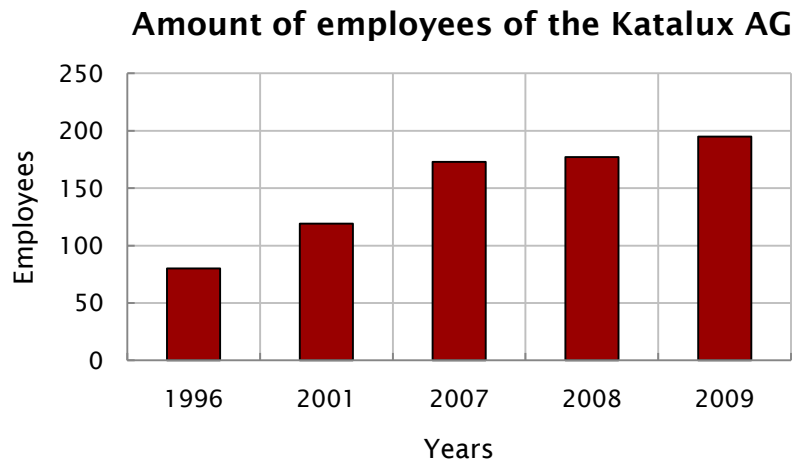
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# The case: Katalux AG\*



- The Katalux AG had a intense growth of staff in the last years: CAGR = 10,5% ! Therefore Katalux gets the access to new knowledge- resources!
  - In contrary to the trend of the German medical equipment branch the Katalux AG had a positive growth in the last years!
- 
- „ *I believe that even Mister XY has realized by now that we cannot develop beyond the market!*“ (Documentation Katalux\_Meeting, 2009: 1)
  - „[...] *the new orientation of the company has to work interdivisional. Thus this old crusted „divisional thinking“ will be forced to change through projects and company-wide innovations.*“ (Interview Managing Director Accounting, Finance and Controlling, 2009: 13)

# Agenda: Controversial Innovations and Organizational Change



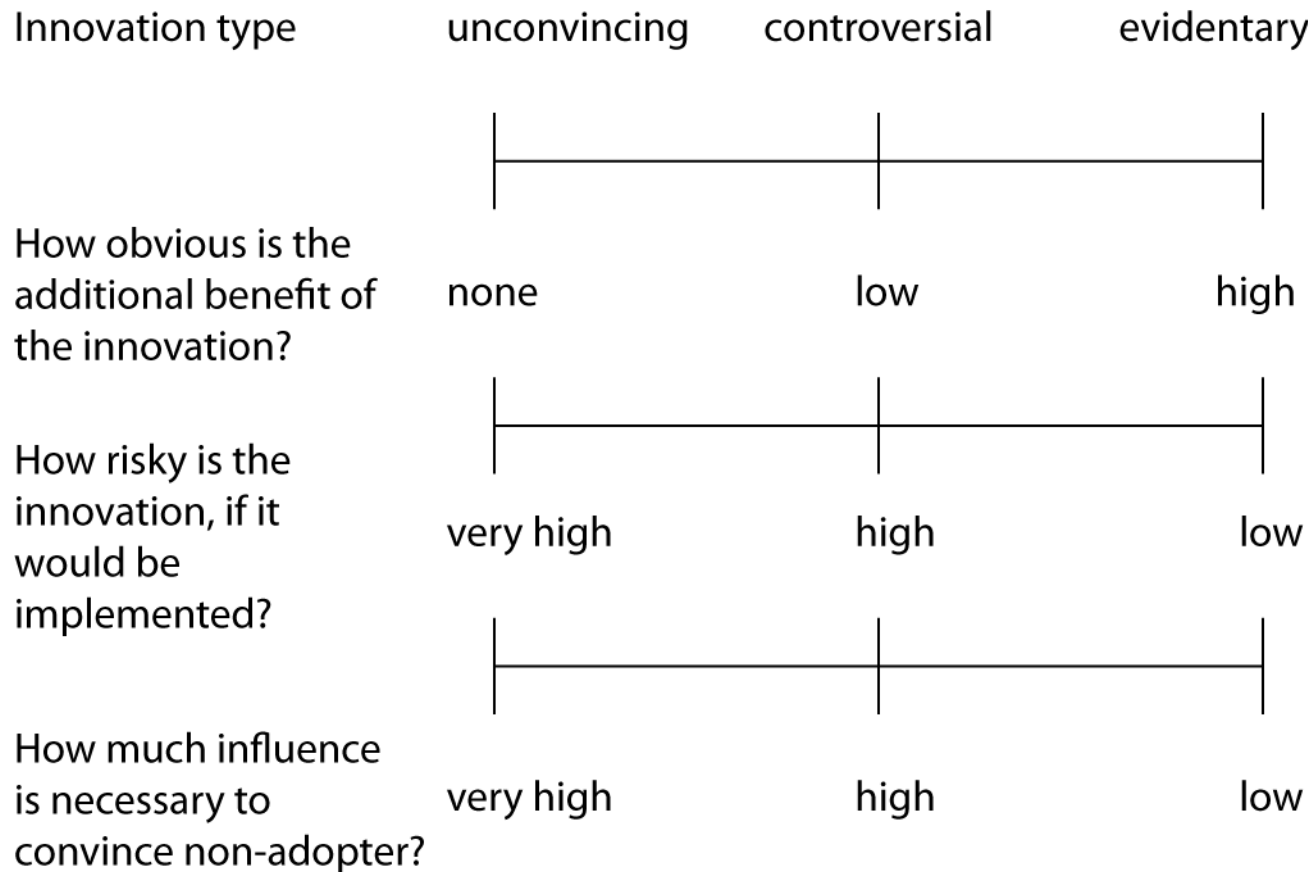
- *Research Gap*
  - *Research deficit, question and definition*
- *Method & Data*
  - *question specifications and network survey*
- *Results*
  - *What affects market orientation?*
  - *Does social distance matter?*
  - *Periphery: A place for controversial Innovations?*
- *Conclusion*



- **Research deficit:** Many authors (Krackhardt, 1997; Tsai and Ghoshal, 1998; Tsai, 2001; McGrath and Krackhardt, 2003; Mohrman, Tenkasi et al., 2003: 302) realize that organizational change and organizational innovations haven't been considered from a network analytical point of view.
- **Theoretical indications:**
  - Theoretical work indicates that weak ties have a strong influence on the diffusion of information, knowledge and ideas (Granovetter, 1973)
  - Institutional Hysteresis has an influence on the implementation of Innovations (Setterfield, 1993)
  - Krackhardt (1997) and McGrath and Krackhardt (2003) remark the thesis on the basis of assumptions and a computer simulation that there is a “peripheral dominance of controversial innovations”
- **Empirical evidence:**
  - Many studies indicate the importance of influence and knowledge relations in the diffusion process of Innovations (e.g. Granovetter, 1978; Valente, 1996; Rogers, 2003, Becker, 1970)
  - Glückler (2011) describes a diffusion process of a controversial innovation in the organizational and geographic periphery of a transnational company

*How does a controversial organizational innovation diffuse through a social network of employees?*

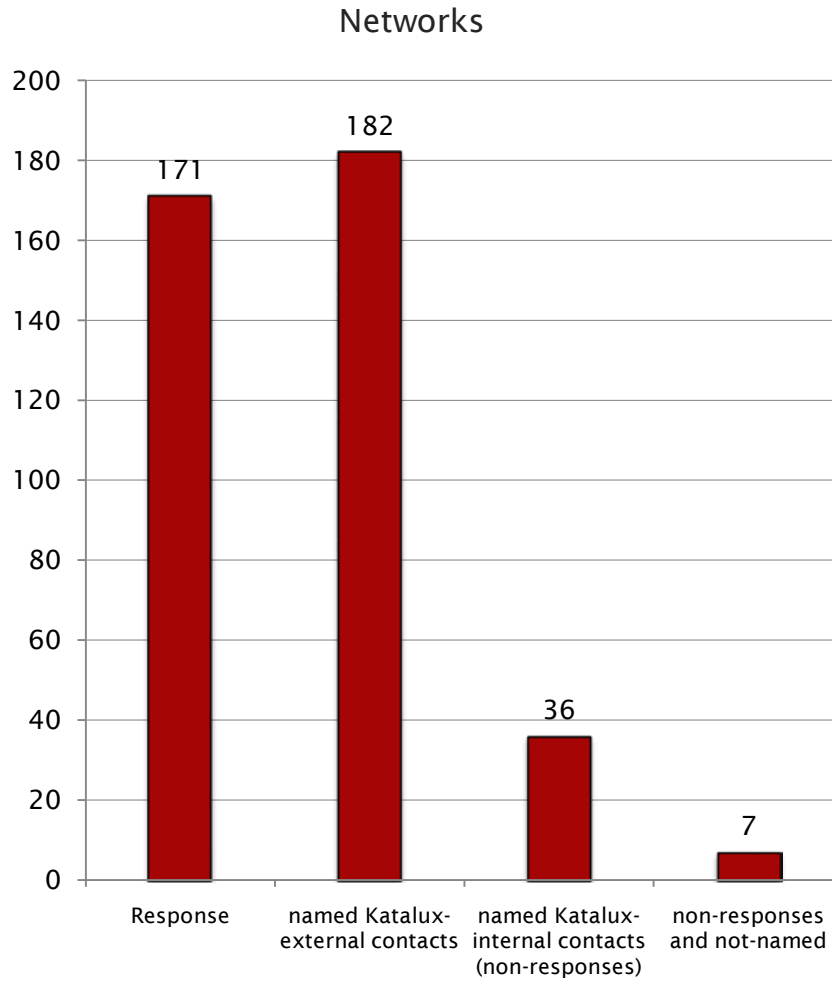
# Definition: Controversial innovation



# A specification of the research question



- How does a market orientation - as a controversial organizational innovation - diffuse through a social network of employees?
  - What affects market orientation?
  - Does social distance matter? A diffusion process?
  - Is there a difference in the resistance against controversial innovations between the centre and periphery of a social network?



- 171 employees of the research group with 214 employees responded to the questionnaire. 182 external contacts have been named.

- Two relational questions:**

- Knowledge.** „In the past, who was a source of experience and new knowledge, which was useful to solve professional problems? “

- Influence and reliance.**

*“Operational procedures can always be optimized. But not every organizational improvement offers an obviously direct additional benefit. Imagine you suggest such an improvement and you are confident about its surplus.*

*Which Persons in the Katalux AG would lobby for your proposition?*

*Please indicate just people who would lobby for you personally and who have enough influence to standing up to colleagues and supervisors.”*

# What affects marketorientation?



	2	3	4	5	6	7	8
<b>A. Distance</b>							
1 Geodesic distance to the sources of market orientation in the max.-symmetrized knowledge-Network	0.299***	-0.167*	0.103	-0.013	0.127	0.246*	-0.396***
2 Geodesic distance to the sources of market orientation in the max.-symmetrized influence-network	1	-0.113	-0.035	0.05	0.129	0.142	-0.203*
<b>B. Sources of Information/Knowledge</b>							
3 Customer		1	-0.319***	-0.206**	-0.127	-0.256**	0.265***
4 Can you learn all necessary skills for the job inside the company?			1	-0.299***	-0.135	0.164*	-0.188**
<b>C. Standardization</b>							
5 Formal professional education				1	0.034	0.192*	-0.171*
6 Continuous intervention through the supervisor					1	0.35	-0.183**
<b>D. Position</b>							
7 Hierarchy						1	0.238**
<b>E. Dependent Variable</b>							
8 Market orientation							1



# Does social distance matter? A diffusion process?

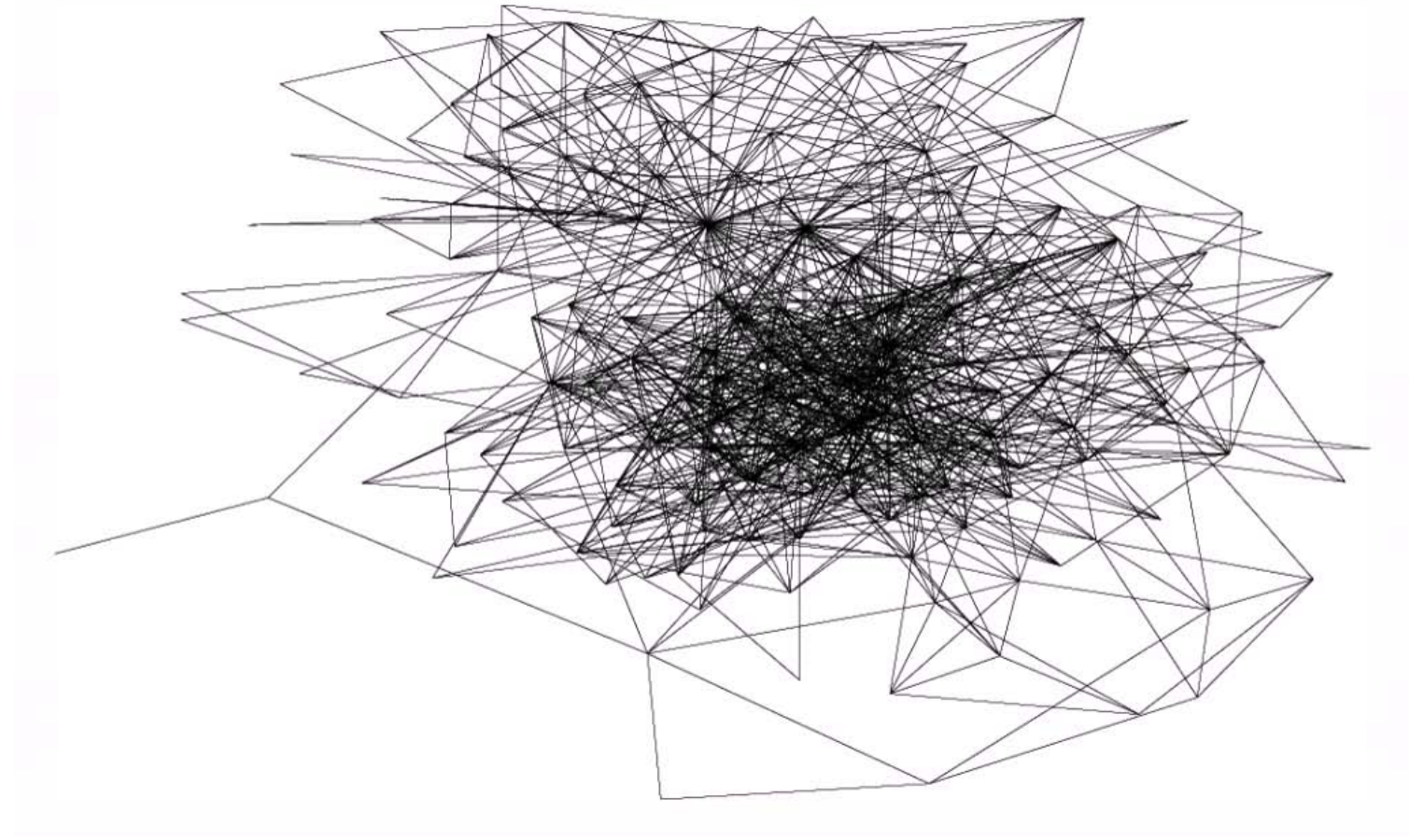


	M1	M2	M3	M4	M5	M6	M7
Intercept	1,8***	1,12***	1,336***	2,510***	2,457***	2,214***	2,85***
<b>A. Distance</b>							
Geodesic distance to the sources of market orientation in the max.-symmetrized knowledge network	-0,931 ***		-0,849 ***	-0,899 ***	-0,863***	-0,843***	-0,749***
Geodesic distance to the sources of market orientation in the max.-symmetrized influence-network		-0.4073*					-0.152
<b>B. Sources of Information/Knowledge</b>							
Customer			0,168 ***			0,116*	0,101
Can you learn all necessary skills for the job inside the company?					-0,136*	-0,103	-0,067
<b>C. Standardization</b>							
Formal professional education				-0,124		-0,113	-0,102
Continuous intervention through the supervisor				-0,153**	-0,112	-0,058	-0,093
<b>D. Position</b>							
Hierarchy							0,114
R <sup>2</sup>	0,157	0,041	0,197	0,206	0,194	0,232	0,241
Adjusted R <sup>2</sup>	0,147	0,030	0,182	0,187	0,174	0,203	0,203
P	0,000	0,014	0,000	0,000	0,000	0,000	0,002

# A diffusion process?



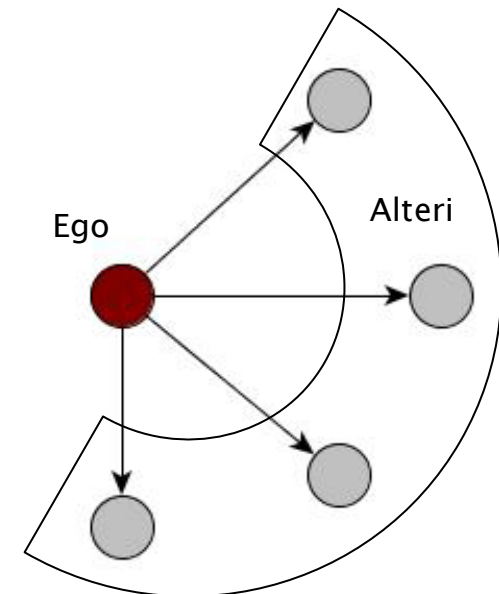
The knowledge-network and the market orientation of the employees



# Periphery: Place of controversial innovations?



	...trustfully influential person/s	... employees in the symmetrized influence network
<b>Prestige as ...</b>	0.498***; $R^2 = 0.248$	0.503***; $R^2 = 0.253$
<b>Closeness to all ...</b>	0.534***; $R^2 = 0.286$	0.325***; $R^2 = 0.106$
	... Knowledge sources	... employees in symmetrized knowledge network
<b>Prestige as ...</b>	0.482***; $R^2 = 0.233$	0.488***; $R^2 = 0.239$
<b>Closeness to all...</b>	0.480***; $R^2 = 0.23$	0.602***; $R^2 = 0.363$



The diversity of opinions in respect of market or technology orientation as the preferred focus for the Katalux AG has its highest values in the centre of the studied networks.

The difference between the influence and the knowledge network, especially in terms of symmetrized relations, indicate the influence of weak ties in information and knowledge networks as well as the influence of asymmetric relations in influence - and reliability - networks on the diffusion of controversial organizational innovations.



*Organizational change can be seen as a diffusion process of organizational innovations.*

*Distance in social networks seems to be a dominant aspect to explain the occurrence of faith and beliefs which are linked with a controversial organizational innovation.*

*A social and organizational periphery offers a greater opportunity to implement controversial organizational innovations.*

*In order to identify a social periphery weak ties are important to be taken into account.*



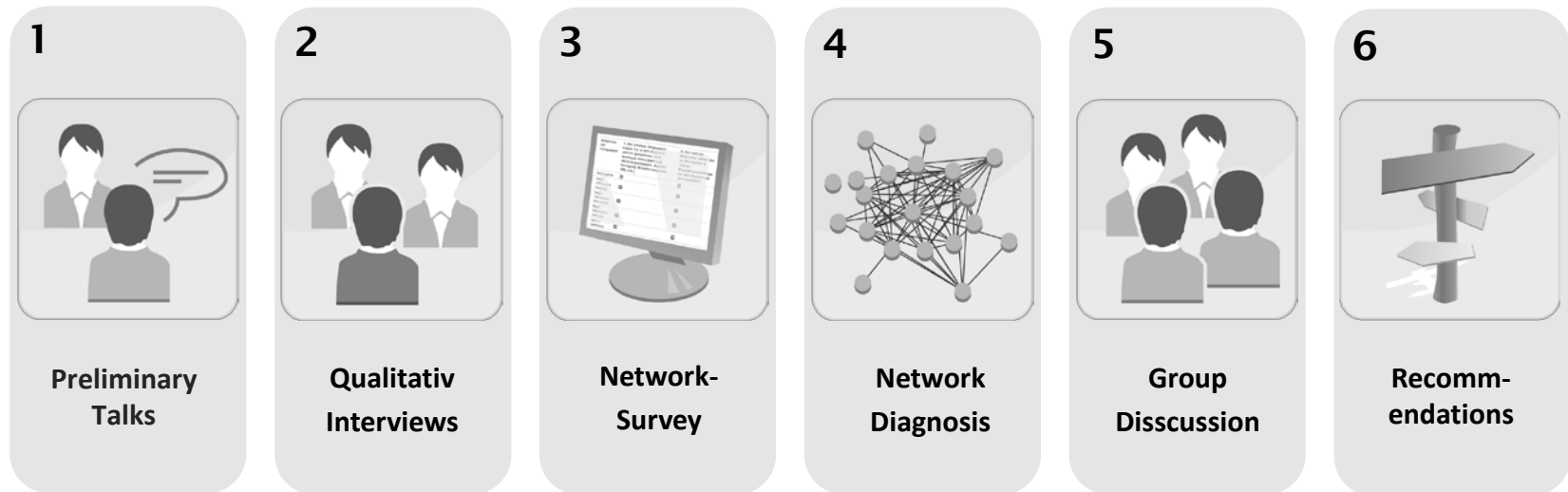
**MERCI BEAUCOUP POUR VOTRE  
ATTENTION !**

**THANK YOU FOR YOUR ATTENTION!**



# BACKUP

# Situative organizational Networkanalysis (SONA)



July 2009 - May 2010





- *„Ich glaube, dass es mittlerweile auch bis zum Herrn ,xy‘ angelangt ist, dass man nicht am Markt vorbei entwickeln kann!“ (Dokumentation Katalux\_Meeting, 2009: 1).*
- *„I believe that even Mister XY has realized by now that we cannot develop beyond the market!“ (Documentation Katalux\_Meeting, 2009: 1)*
- *„[...]die neue Ausrichtung des Unternehmens wird auch in den nächsten Jahren bereichsübergreifend funktionieren müssen. Also, diese alte, verkrustete ,Abteilungsdenke‘ wird immer stärker beschossen durch Projekte, durch unternehmensübergreifende Neuerungen.“ (Interview BL-Finanzen, 2009: 13).*
- *„[...] the new orientation of the company has to work interdivisional. Thus this old crusted “divisional thinking” will be forced to change through Projects and company-wide innovations.“ (Interview Managing Director Accounting, Finance and Controlling, 2009: 13)*



# Types of Innovation

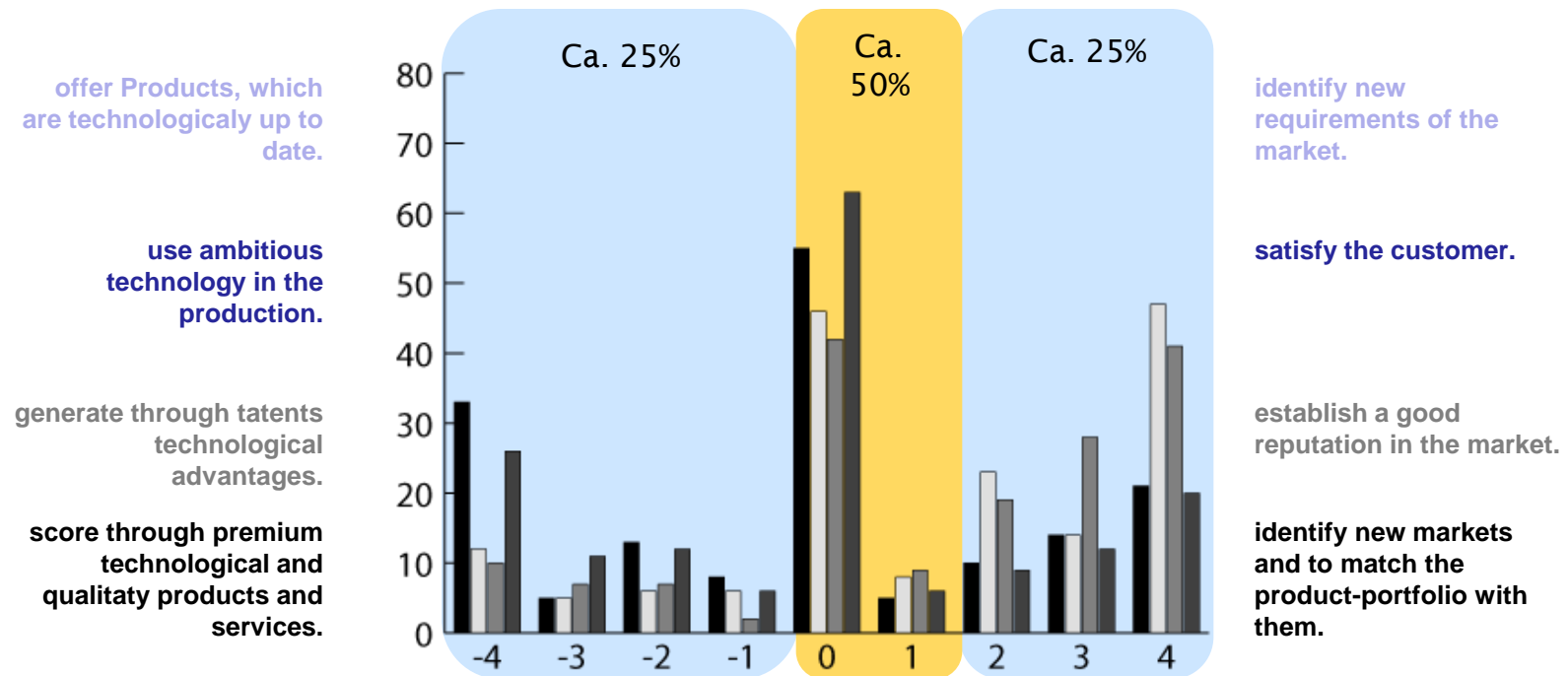


Innovation	Description
Product Innovation	This involves a good or service that is new or significantly improved. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness or other functional characteristics. In the education sector, a product innovation can be a new or significantly improved curriculum, a new educational software, etc.
Process Innovation	Process innovation involves a new or significantly improved production or delivery method. This includes significant changes in techniques, equipment and/or software. In education, this can for example be a new or significantly improved pedagogy.
Marketing Innovation	Marketing innovation involves a new marketing method involving significant changes in product design or packaging, product placement, product promotion or pricing. In education, this can for example be a new way of pricing the education service or a new admission strategy.
Organisational Innovation	Organisational innovation involves introducing a new organisational method in the firm's business practices, workplace organisation or external relations. In education, this can for example be a new way organization of work between teachers, or organizational changes in the administrative area.



# Market vs. technology orientation: The distribution

*For the Katalux AG it is more important to... than ...*

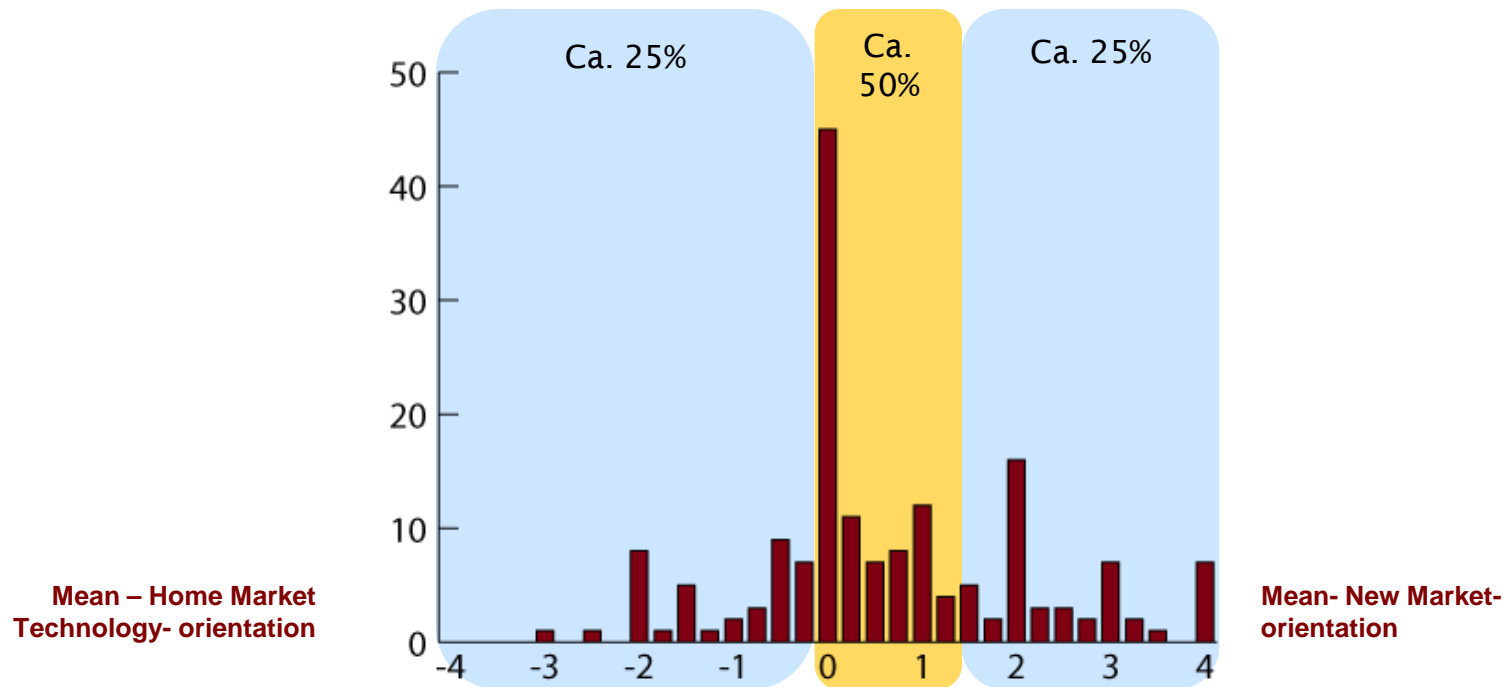


Four Variables have been used to measure the idea, that a stronger market-oriented focus is important for the Katalux AG.

The distribution suggests that there are some technological, some market-oriented and some indecisive employees in the Katalux AG.



# Market vs. technology orientation: The distribution



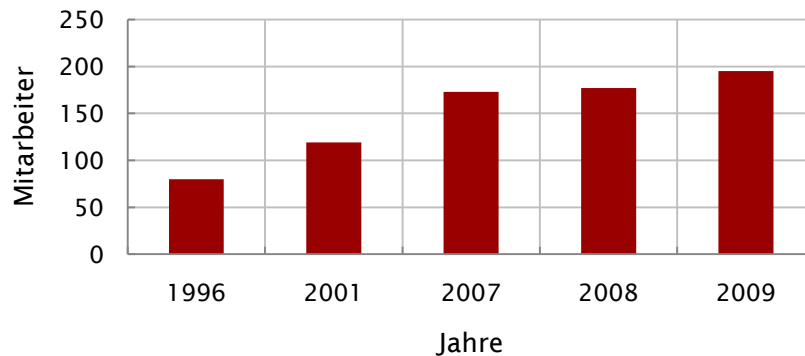
To get a overall measure of market orientation I create an index based on the mean of the four mentioned variabels.

This index shows a huge part of employees who are indecisive. But overall, the employyes are more market than technology oriented (mean market orientation: 0,5419, Median: 0,250).

# The Case: Katalux AG

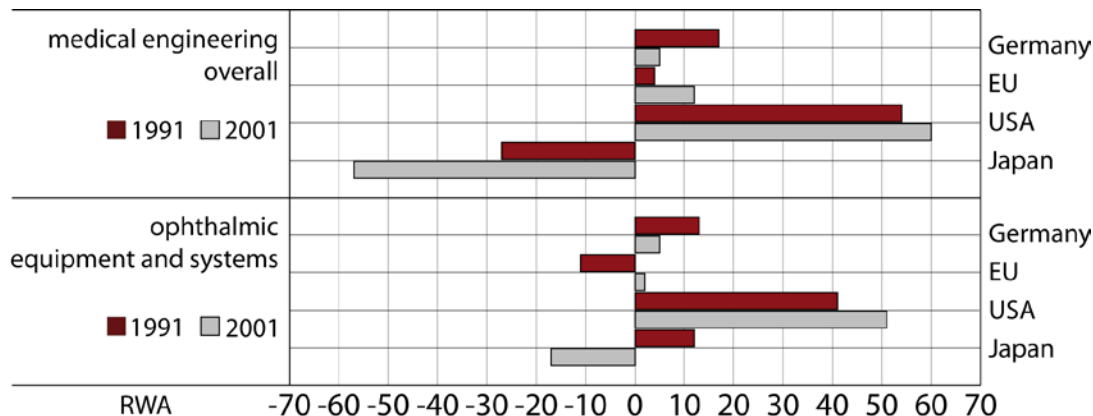


Amount of employees of the Katalux AG



- The Katalux AG had an intense growth of staff in the last years:
- CAGR = 10,5% !!
- Therefore Katalux gets the access to new knowledge resources!

Exports to Mean OECD Export ratio



- In contrary to the trend of the German branch the Katalux AG had a positiv growth in the last years!