

# The World of 2020

- Innovation Champion Euregio Maas-Rhein -

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UNIVERSITY



# The World of 2020 – Innovation Champion Euregio Maas-Rhein



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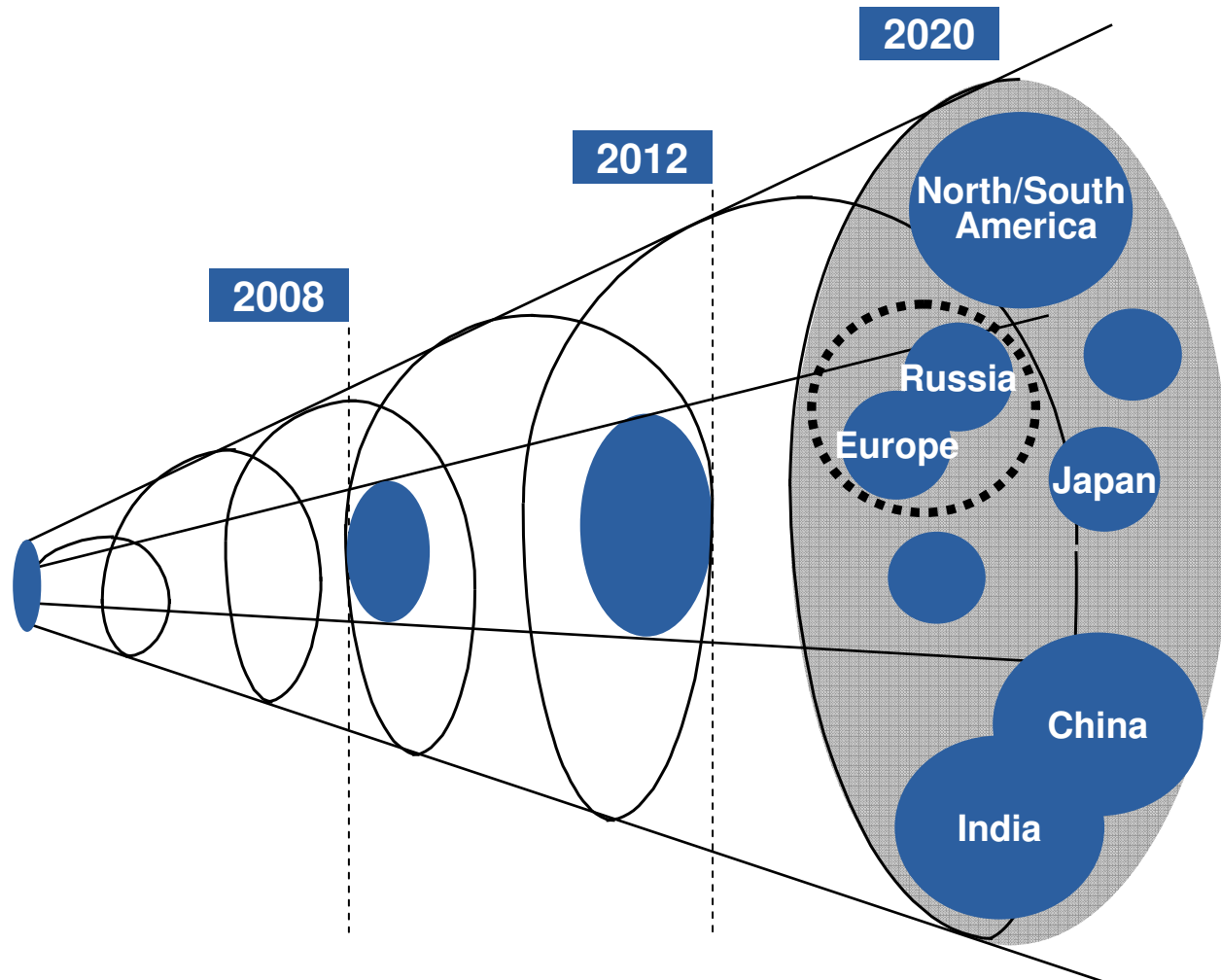
**Head of section  
Communication &  
Organisation Development  
ZLW/IMA**

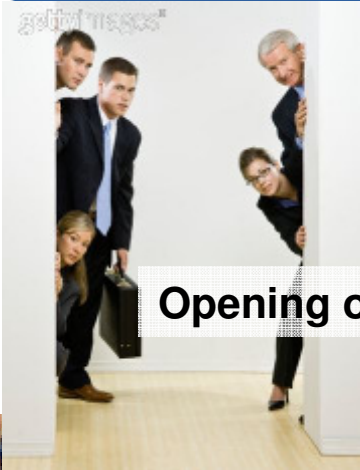
# Innovation Champion

## Model Region: Euregio Maas-Rhein

- **Turbulences in 2008 and the World 2020**
- How should we deal with this situation?
- Model region Euregio Maas-Rhein 2020
- Conclusion & recommendations







**Global Networking of Economics and Politics**

**Opening of Work and Society**



**Expansion of Life**

**synthesis from forecasts**

**Restriction of Growth**



**Financial Crisis**

**Capture of Minimal Structures**



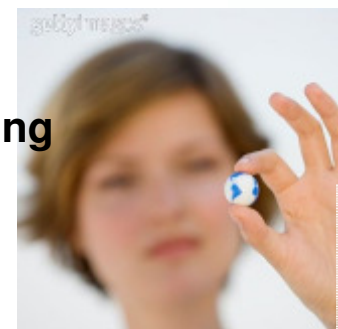
**Olympic Games Peking**

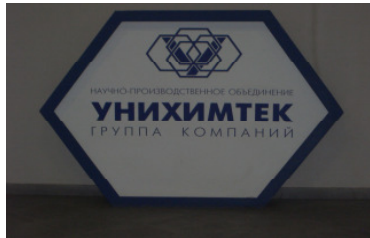


**Overproduction in Mechanical Engineering**

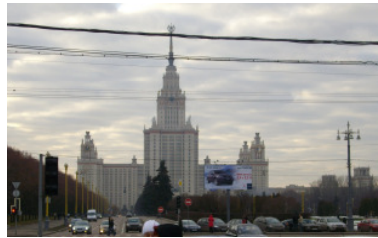


**Virtualization of Processes Within Networks**





UNICHIMTEK Company



Lomonossov University

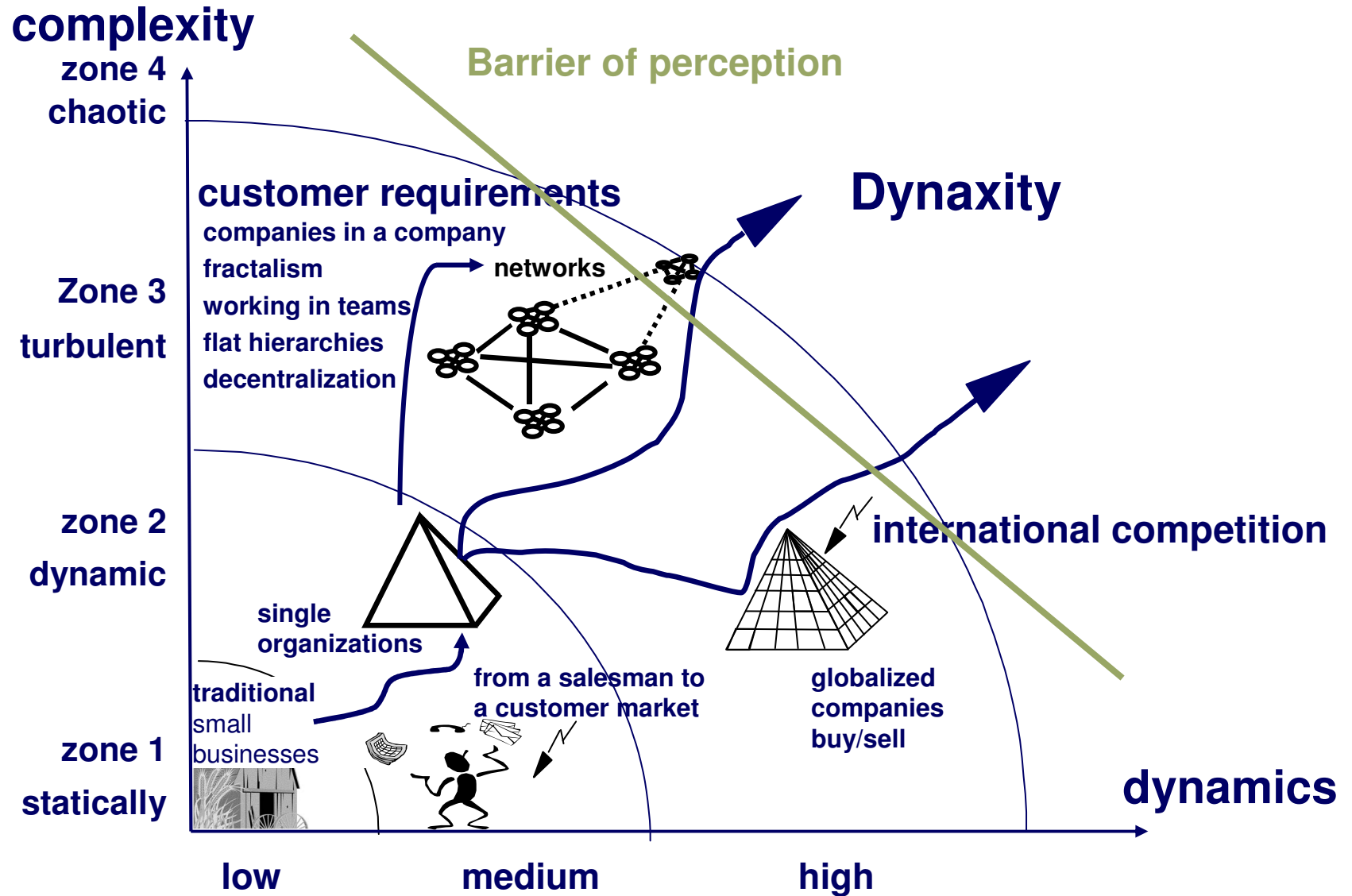
## Impressions



## Success factors of the UNICHIMTEK Company

- Used to live and deal with chaos
- Dedicated to science
- Extremely high knowledge potential
- Five times more ideas than can be realized
- Supporting networks and partner
- Cooperation between science and economy





...as a machine

connecting data

guide, norm, standard

„throw the lever“ (i.e.  
SAP-introduction)

Not „either ... or“,  
but „as well as ...“!

...as a living system

connecting people

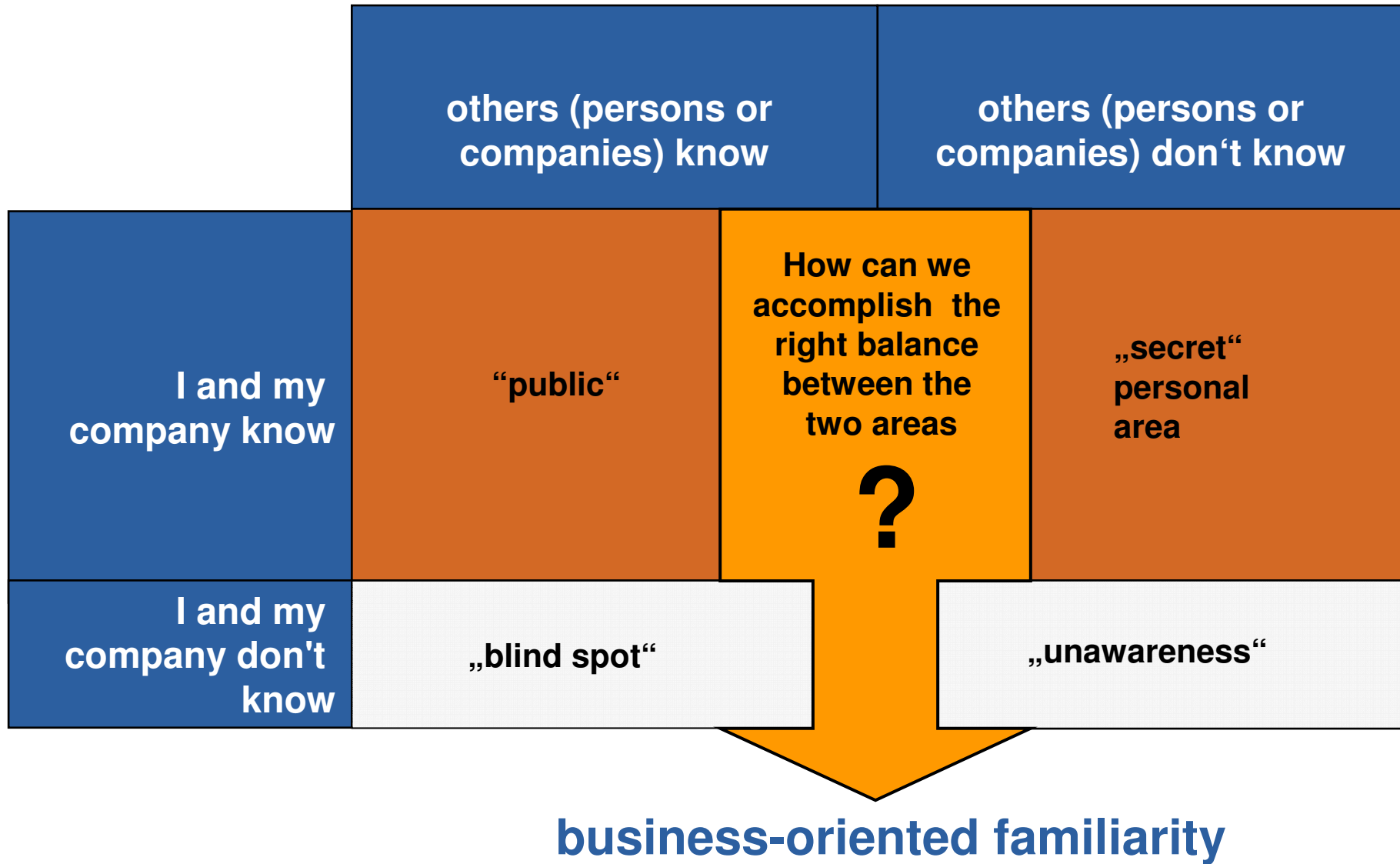
agile (vital) processes

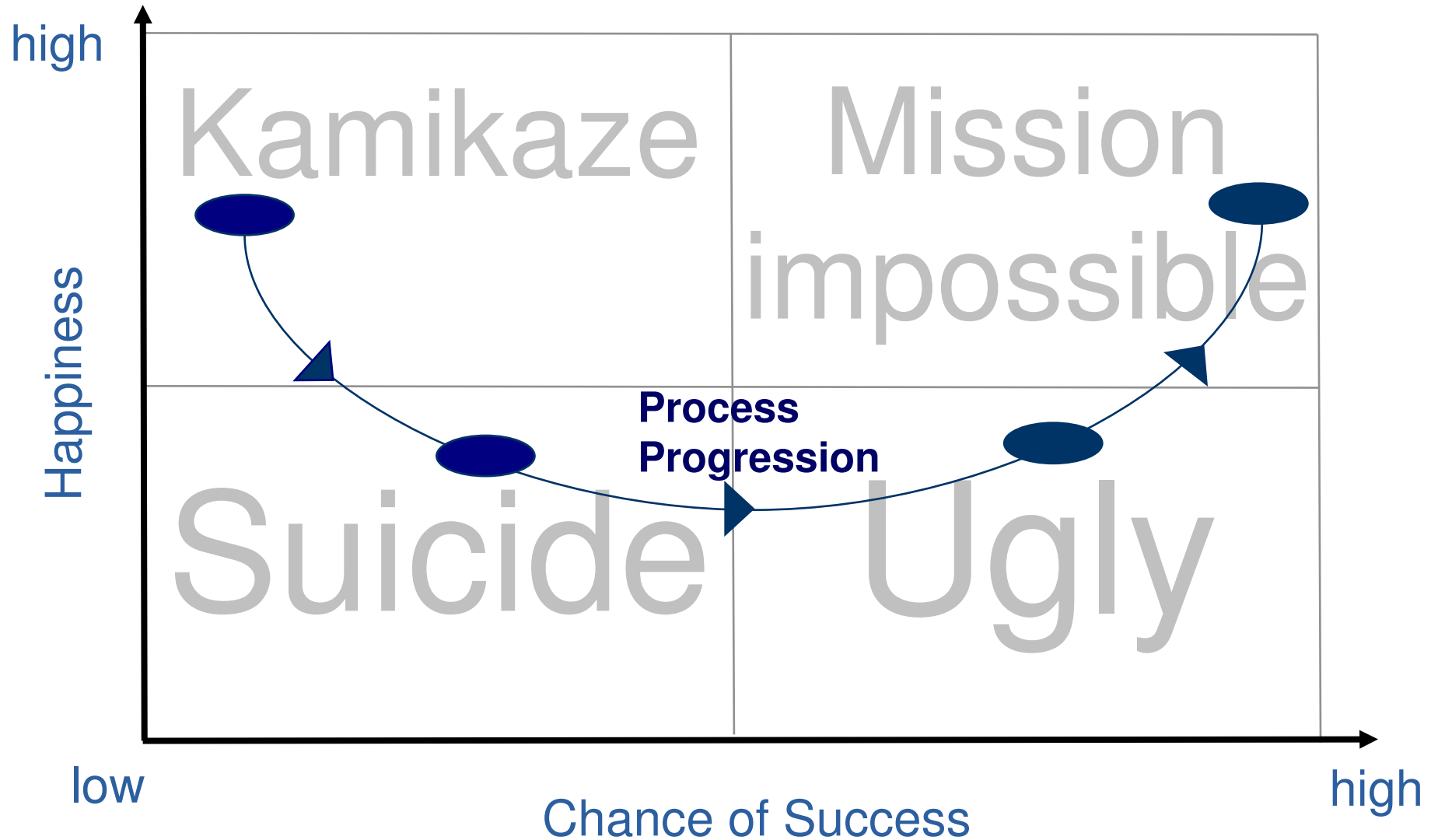
culture change

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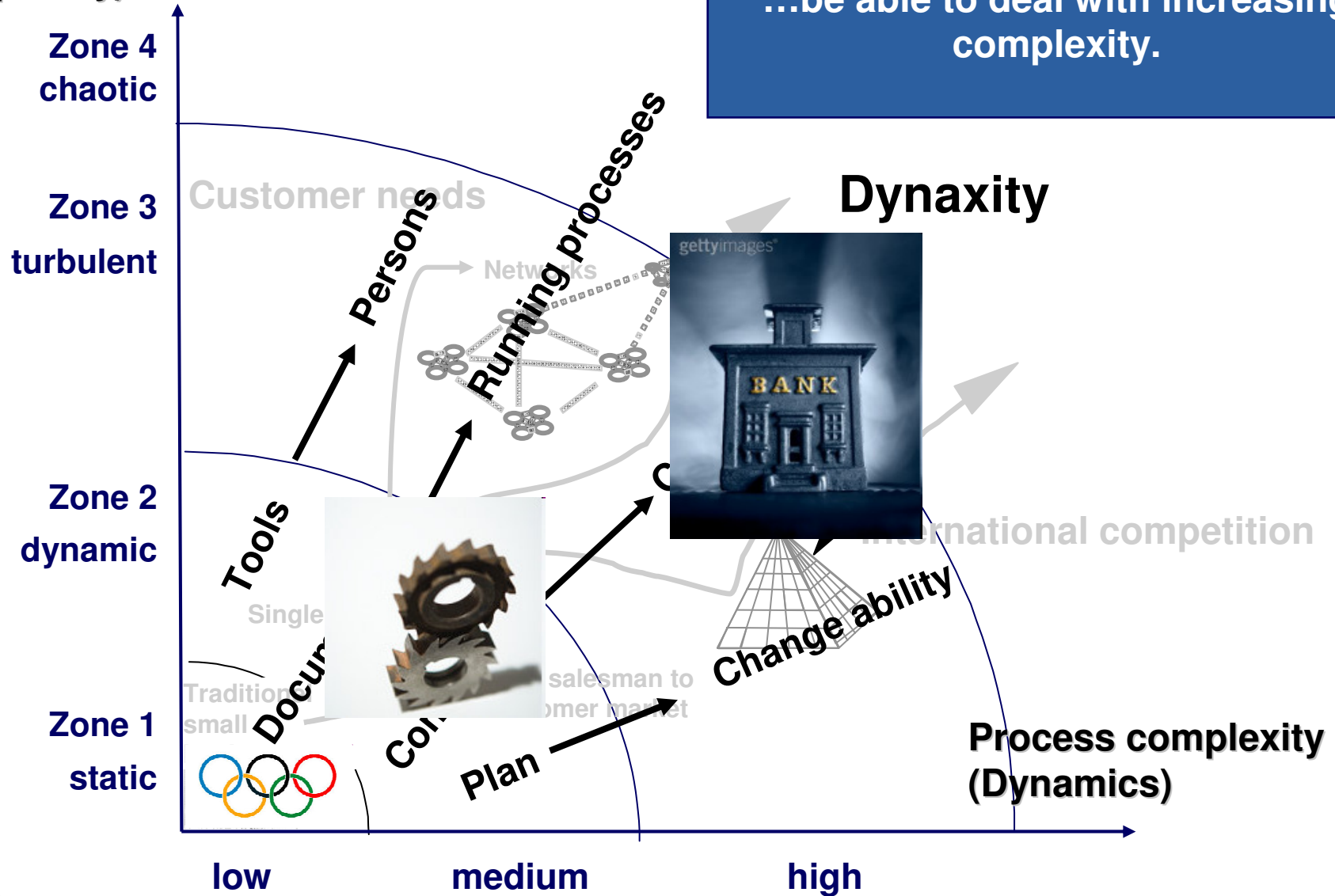
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Source: according to Yourdon (1997)

Product complexity  
**(Complexity)**



## Appreciation of values of the Agile Manifest:

- Individuals and interactions over processes and tools,
- Working software over comprehensive documentation,
- Customer collaboration over contract negotiation,
- Responding to change over following a plan.

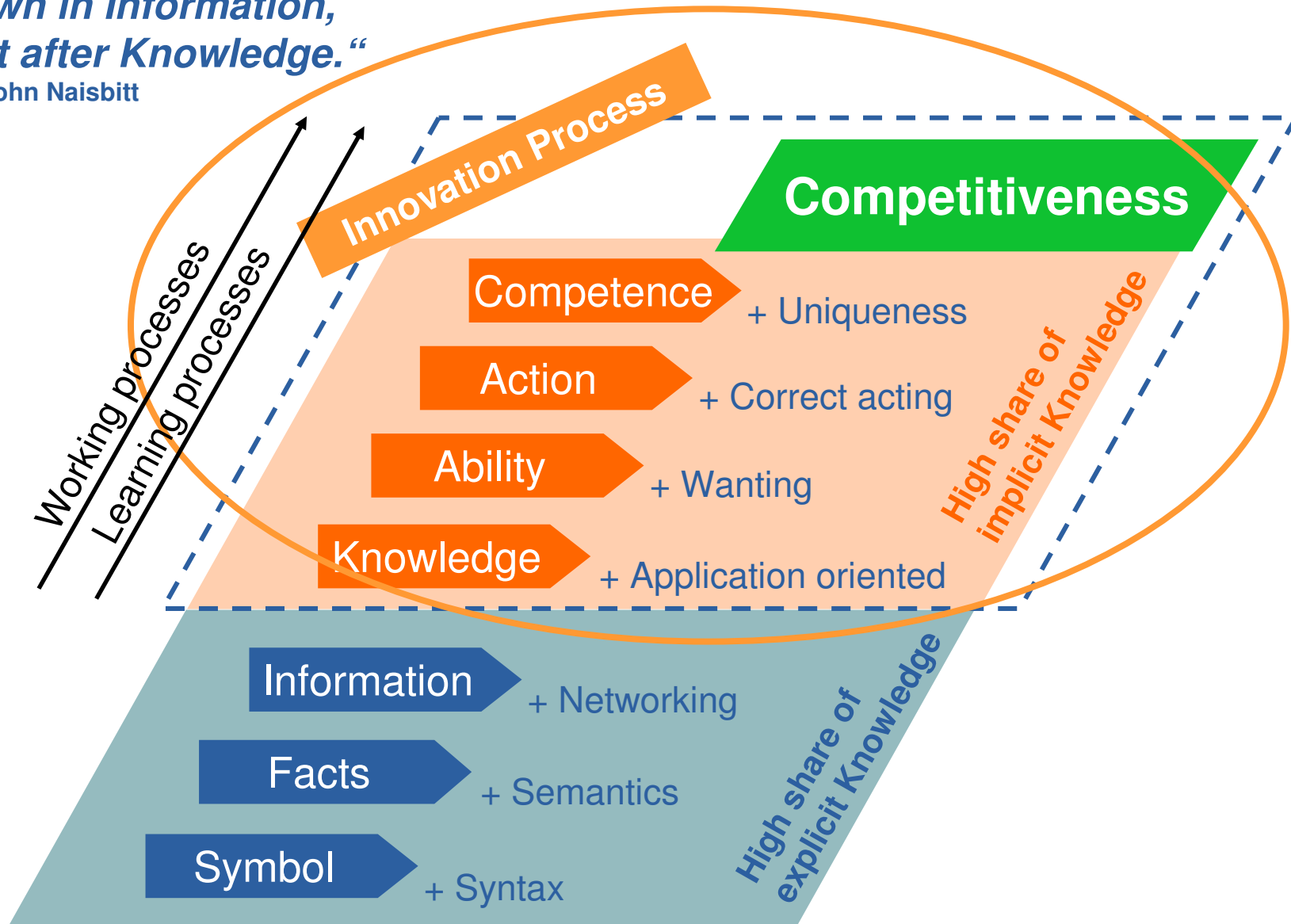
We therefore attach more importance to the former respective values, but do not forget the importance of the latter.

**The agile manifest spotlights the human being and its interactions – with focus on running processes.**

**„All organizations are perfectly designed to get the results they get.“**

*„We drown in Information,  
but thirst after Knowledge.“*

Source: cp. John Naisbitt



Source: North 1998

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## Europe begins here!



- More than 30 years` experience in transnational cooperation: An example of successful European integration,
- Various international cooperations of the regions Aachen, Belgian Limburg (Hasselt), Wallonia (Luttich), the German-speaking community of Belgium (Eupen) and the Dutch region South Limburg (Maastricht).



Model function for the European Union

## We need knowledge management for innovation

- Knowledge management is a strategic factor of success.
- A balance between „sharing knowledge“ and „hiding knowledge“ has to be found.
- Business oriented familiarity is an essential success factor.

## Abilities and Action

- The importance of mobility of employees, cross-border cooperations and the reduction of language barriers will increase against the background of amplification of Europe-oriented processes.

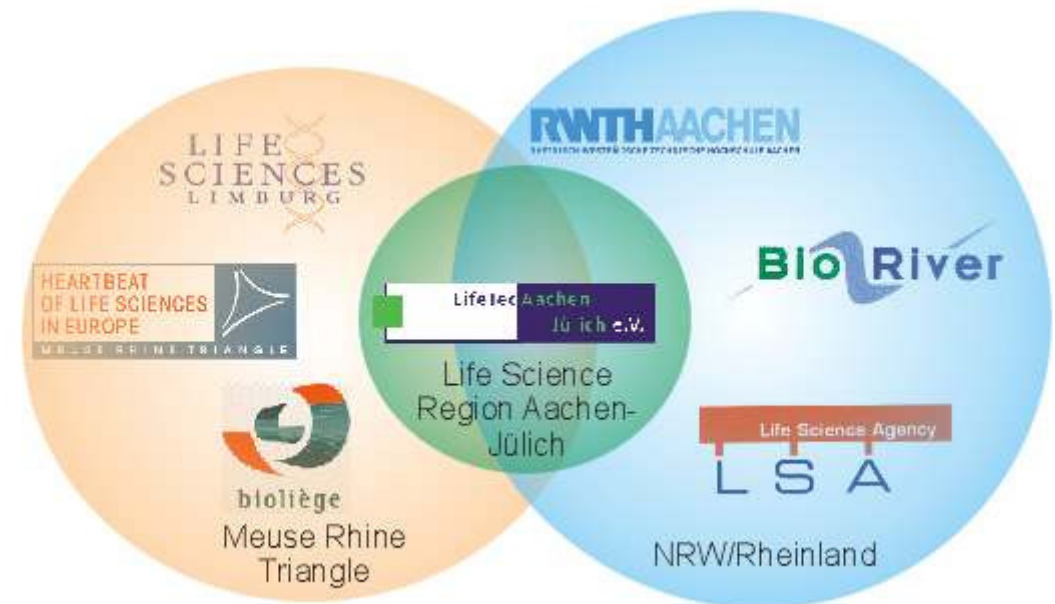
## Technology-oriented clusters as outstanding factors of the innovative economic development

Cluster Information and Communication Technology

Cluster Automobile/Rail

Cluster Life Sciences

Cluster Modern Materials



## Worldwide networking will be perfectly normal

- Easier and faster access to a growing amount of knowledge,
- Need for adequate strategies to identify, evaluate, use and (sometimes) forget relevant information,
- Advancement of self-learning competence.

## Relearning as a life-long professional development

- Regarding living and learning, the individual of the future has to become active in an entrepreneur-like way,
- Against the background of demographic change, the necessity of life-long-learning will become amplified.

Learning without frontiers:



Aachen - Germany 



Maastricht  
- The Netherlands

Luttich - Belgium



→ Close networking of information-, knowledge- and learning management to deal with complexity

→ Strong supplement of individual strengths

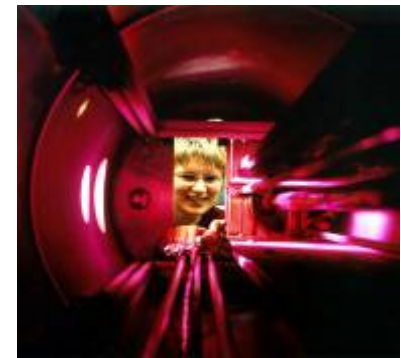
→ Knowledge region with one face to the customer and at one place for the customer

## Dramatic fusions of technology enforce new ways of developing competencies for innovation

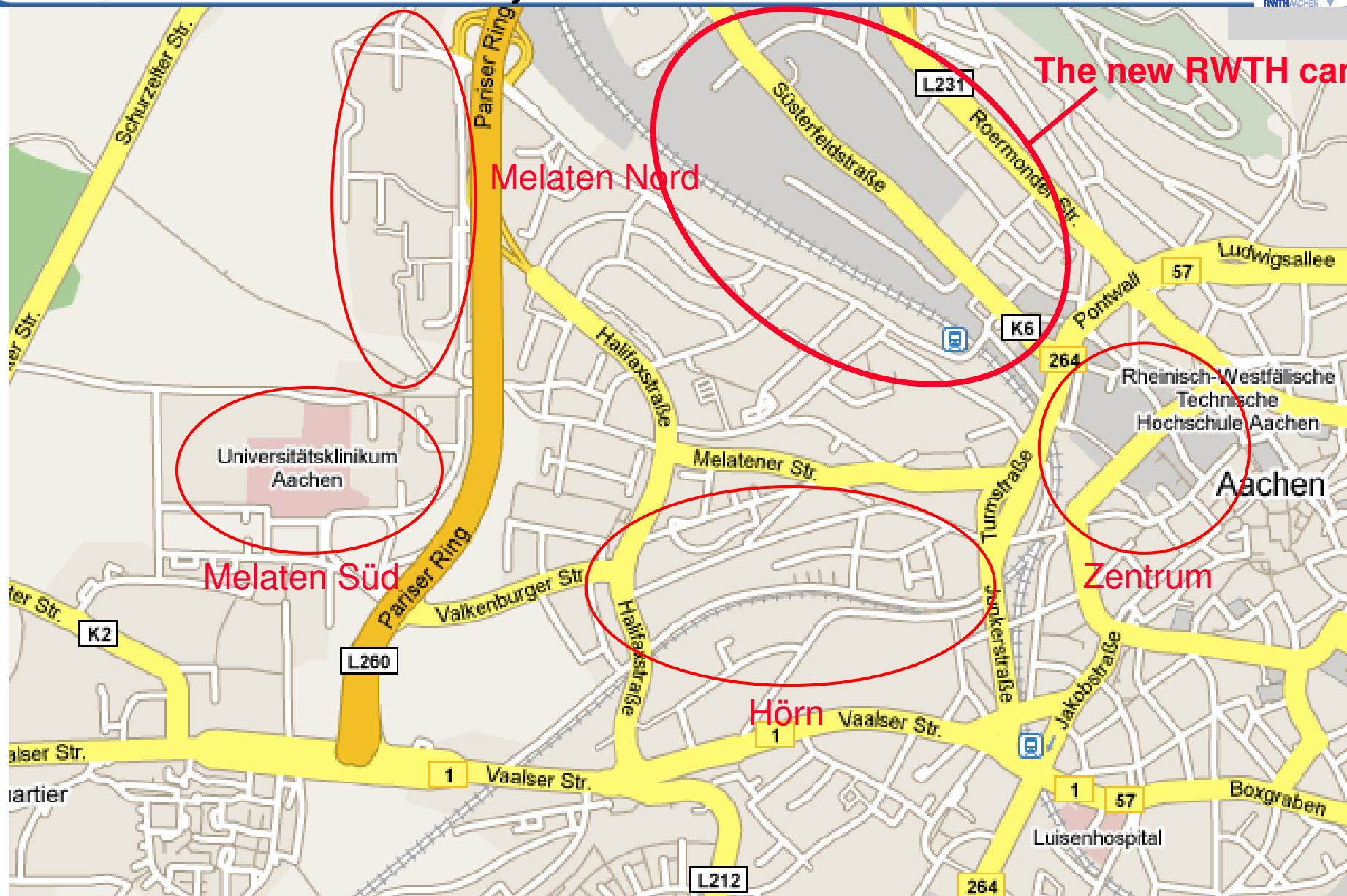
- A new culture of integrated learning, working, and services needs appropriate technologies,
- The dramatic fusions of technology enforce new ways of developing competencies to create innovations,
- New chances for innovations through integrated working and learning.

- Personnel: 10.000 (11.469 incl. An-Institutes and Fraunhofer Gesellschaft "FhG")
  - 101 Study courses
  - 450 Professorships
  - 2000 Research assistants
  - 2000 Non-scientific staff
  - 750 Apprentices and interns
  - 2000 personnel from third-party funds
  - 2000 Student assistants
- Students:
  - 30.260 students overall
  - 5.368 new inscriptions (Winter semester 07/08)
- Research networks:
  - 3 clusters of excellence
  - 9 special research areas
  - 12 An-Institutes, 4 Fraunhofer institutes
  - 10 Graduate Colleges and schools
- Overall turnover:
 

	574 Mio. €
- State funds:	377 Mio. €
- Third-party funds:	162 Mio. €
- An-Institutes and FhG:	35 Mio. €



state: Dec. 06



## Expansion of RWTH Campus

- 270,000 square metres (~67 acres),
- One of the biggest research landscapes of Europe,
- 100 national and international enterprises,
- 10 000 new jobs,
- Innovation driver for scientific and technological development,
- Protection of the competitiveness and future fitness of the RWTH Aachen University in international comparison.



Technology region for a complete integration of research and technology

„We place emphasis on our strength: innovation and competence, global presence, as well as the experience and the know-how of our 6.000 employees.“

- founded in 1974,
- manufacturer of high-tech systems for the cleaning of engine blocks in the automotive industry,
- has 6000 employees,
- turnover amounts to 1,476,6 bn €
- No.1 on world market

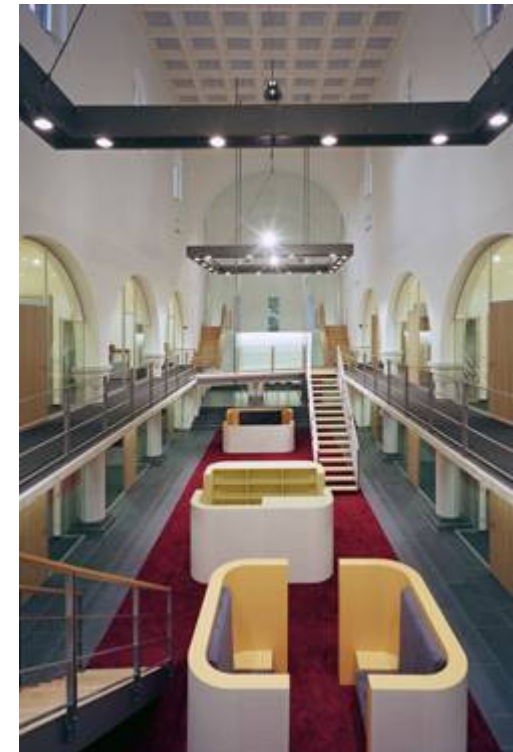


Ecoclean

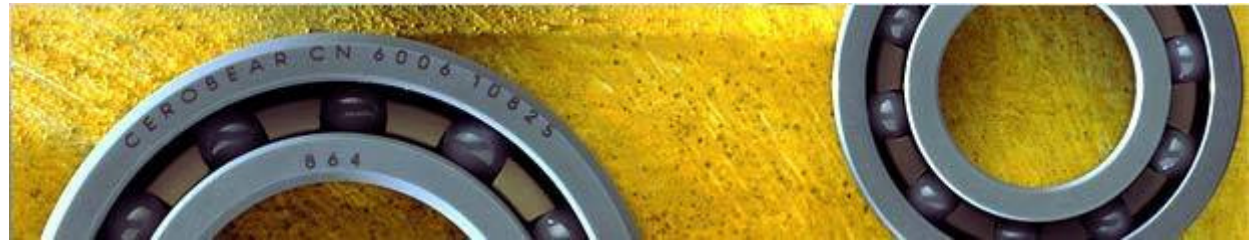


## „We make you fit for competition“

- Founded in 1988,
- Spin-Off of RWTH Aachen University,
- More than 50 highly educated engineers,
- Consultancy in all areas of energy industry,
- One of the few consultants for industry.



Die Berater der Energie- und Wasserwirtschaft



- founded in 1990,
- CEROBEAR is a leading manufacturer of ceramic roller bearings and follows entirely new paths in bearing technology,
- Ceramic roller bearings are a key product for industries and processes with the highest standards, like e.g. semiconductor or aerospace industries and motorsports,
- about 125 employees.

**CEROBEAR**<sup>®</sup>  
ceramic bearing technology



- One of the biggest independent development service providers for IC engine development and automotive technology worldwide
- Located in Aachen
- 1700 employees
- founded in 1978
- Construction and development of engines for machines, cars, trucks, ships and locomotives
- from first sketches to serial production
- Production of measurement and test rigs
- Further locations in Auburn Hills (USA) and in Dalian (China)
- Close cooperations with the Chair for Combustion Engines (VKA) of the RWTH Aachen University



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Don't reduce complexity – just love it!



Thank you very much for your attention!

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