

# Managing the Knowledge Region

- Benchmarking Munich -

**Higher Education to Maintain the Pool of Talent and Skill**

by Prof. Dr. Thomas Doyé



## Higher Education to Maintain the Pool of Talent and Skill

### OVERVIEW

(1) Education and Knowledge as a Factor for a Successful Region

(2) EMM European Metropolitan Region Munich

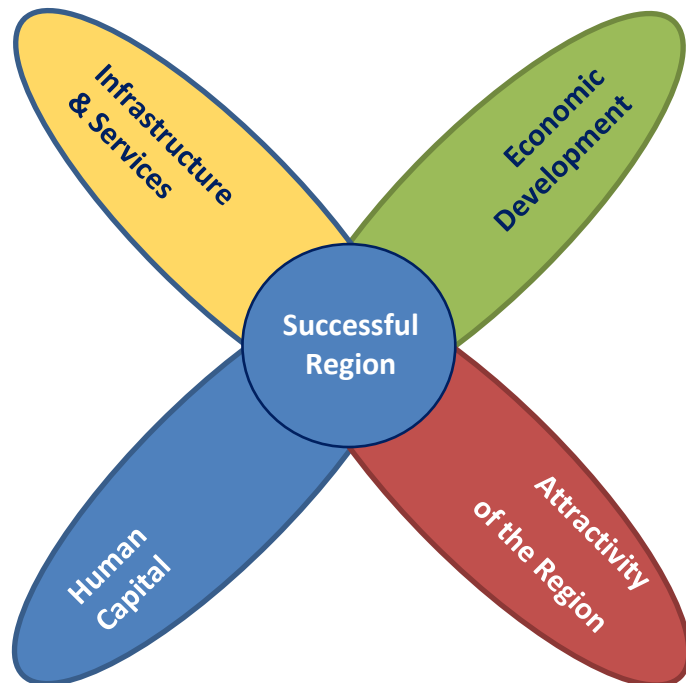
(3) Region Ingolstadt

- Bildungsatlas
- NetWorkShops

(4) Customized University Programmes as a Knowledge Driver for Companies

# (1) Education and Knowledge as a Factor for a Successful Region

The social and the economic frame work and the educational system influence each other. A highly qualitative **regional education landscape is an important condition for the settlement of companies.**



**Education** has no end in itself. However, is an essential part of the success factor **Human Capital**.

Both factors, **Economic Development** and **Attractivity of the Region** have a special relevance for the individual choice of one's own living spot

**Education in its broader meaning is an essential component of Human Capital.**

Education in the broader sense covers:

- Kindergarten and after school care club
- Education at school (Primary and Secondary)
- Vocational training
- Studying at universities
- Company internal qualification
- Lifelong learning programmes

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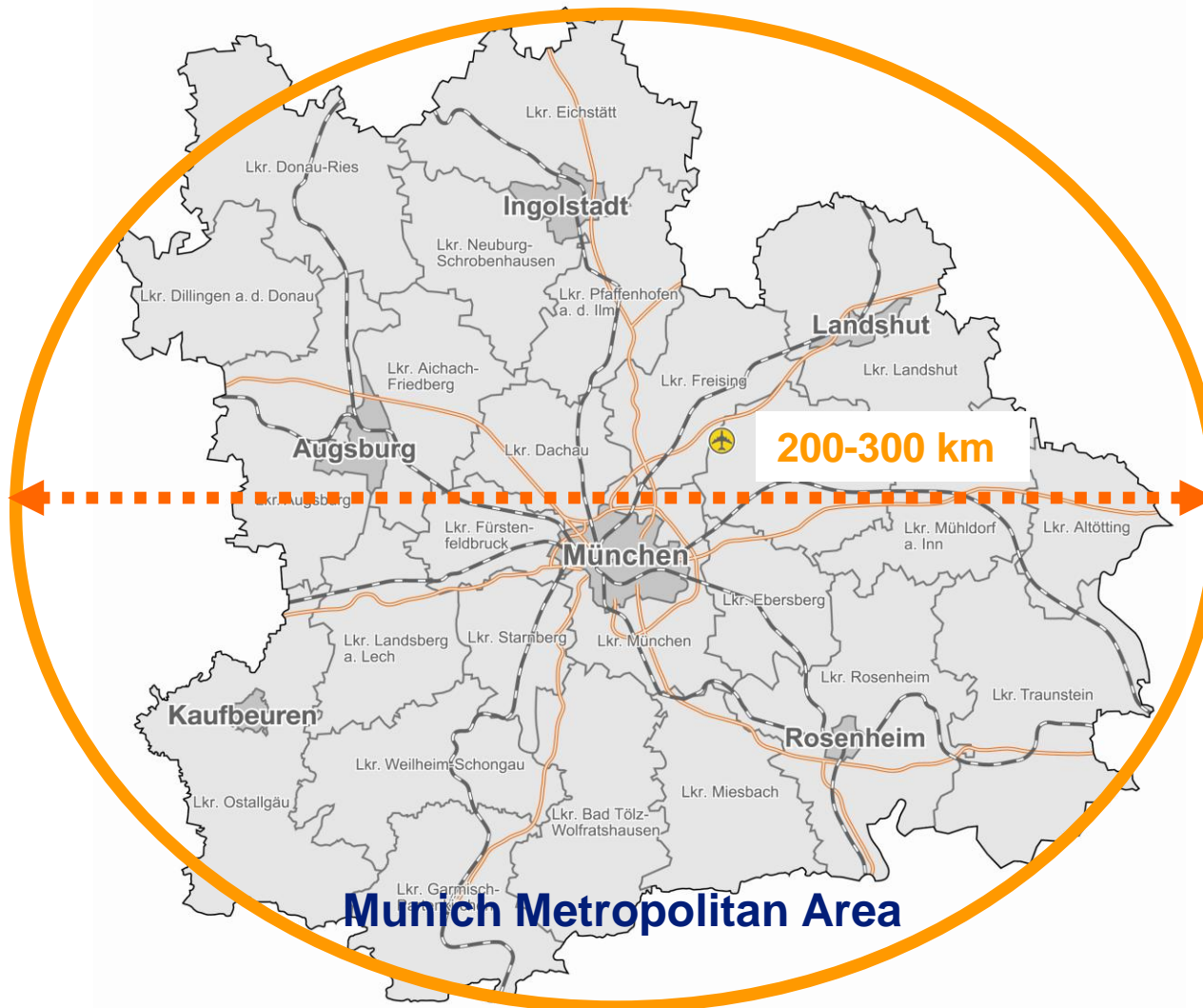
## (2) EMM European Metropolitan Region Munich

### Facts and Figures

- 24 districts
- 5.5 million citizens
- 24,000 sqkm

### In Europe a top location for

- Business and Finance
- Innovation, Science and Education
- Transport and Logistics
- Tourism and Culture



## (2) EMM European Metropolitan Region Munich

### How to strengthen the region

- EMM represents **HiTech** but also has **high labour costs**.
- **Knowledge**, especially for EMM is an extremely valuable **resource** and an important **success factor**.
- This margin is only healthy if EMM succeeds to use the existing **Human Capital** in an optimal way and even to **increase it** and to **use it more effectively**.
- Therefore we do not solely need the qualification of pupils and traditional students, we also need much more ways of **lifelong learning** because the **half-life period of knowledge is declining** continuously.
- Increasing lack of well-educated workforce.
- In a research programme, we've analyzed the need for future qualification and the size of the gap compared to the available knowledge (example Electromobility).
- This is the basis for knowledge institutions like **universities** to offer programmes to **fill these knowledge gaps**, also for adults.
- New approach even allows **foremen** to **achieve bachelor degrees**.

## (2) EMM European Metropolitan Region Munich

### Strengthen The Region



Increase knowledge  
in sharing knowledge

#### Working Groups

- 1) Knowledge
- 2) Business
- 3) Environment
- 4) Mobility
- 5) Culture and Sports
- 6) Rural Areas

#### Strategic Goals

- Attract highly qualified professionals, qualify them and retain them
- Improve top positioning as a knowledge region
- Area where innovation happens
- Lovely place for living

#### Operative Goals

- Increase qualification level of population
- Increase possibilities of qualification for young people, especially foreigners and migrants
- Networking of all scientific and knowledge institutions
- Increase competence for value creation
- Increase visibility of the potential of this region

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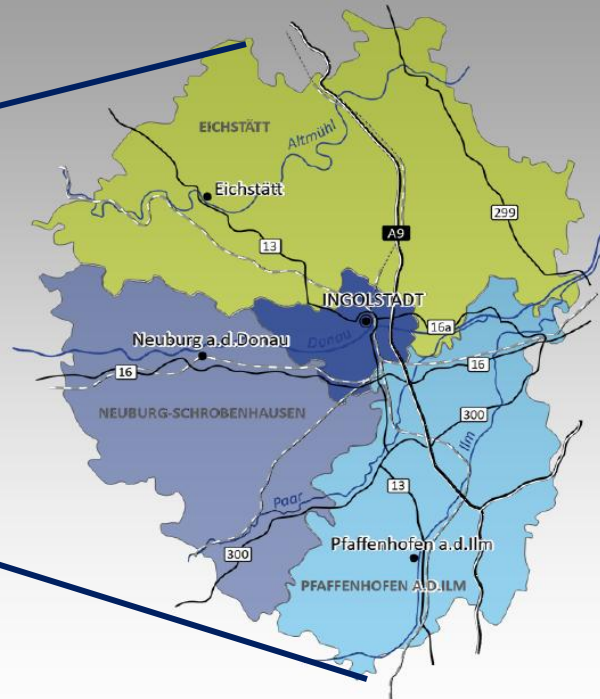
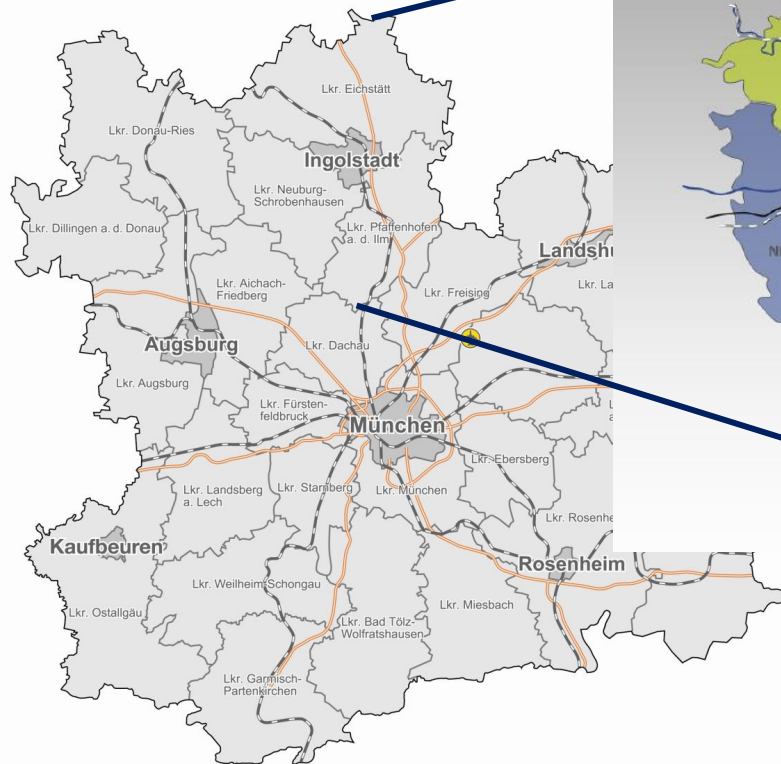
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### (3) Region of Ingolstadt



Population: 455,000  
(Nuremberg: 502,000)

Area: 2,848 km<sup>2</sup>  
(Luxemburg: 2,586 km<sup>2</sup>)

20,000 companies

170,000 jobs,  
32,000 of them at Audi and 10,000 at  
Audi suppliers

73,000 pupils / 7,200 students  
(term 10/11)

## (3) Bildungsatlas / Atlas for (higher) Education

### Bildungsatlas: as the basis for successful higher education

- meanwhile several Atlasse (in Munich, Nuremberg, County Neu-Ulm etc.)
- one for the region IngolStadtLandPlus
- one for the city of Ingolstadt: *which is more detailed*

With extension and with not only analysis of current situation, but description of „shall-be“ situation  
= **education & knowledge strategy for the city**

### Some major and surprising **learnings from the regional Bildungsatlas**

empirical **thesis** from a scientific study:

**„The longer children join a kindergarten the better their school career will develop“**

thesis could be proofed by the **regional Bildungsatlas**

- One of the 4 counties has an especially high participation rate in the kindergarten.
- Exactly this county has outstanding success rates concerning
  - best test results in primary school
  - high passover rates to secondary school (Gymnasium)
  - low rates of repeating classes
  - ... and this county has the lowest rate of unemployment in whole Germany

## (3) Bildungsatlas / Atlas for (higher) Education

### Some surprising learnings in the local Bildungsatlas for Ingolstadt:

- In Ingolstadt high proportion of foreign nationals (=13%)
- Much higher proportion of migrants (=40%)
  - in the age group up to 15 years: 53%
  - in the age group up to 10 years: 56% => *growing tendency*

Migrants = at least one parent  
which is foreigner or migrant

### Foreign pupils and pupils with migrant background have much lower success rates in school, concerning

- low passover rates to secondary school (Gymnasium)
- high rates of repeating classes
- high rate without any „school leaving certificate“
- low success rates of vocational training

### Bildungsatlas proofed also

- that **the higher the percentage of small income** is in a certain township the lower the passover rates to secondary school (Gymnasium) and
- that **the higher the percentage of foreigners and migrants** is in a certain township again the lower the passover rates to secondary school (Gymnasium) and
- that **the higher the percentage of single mothers** is in a certain township **the lower the passover rates to secondary school (Gymnasium)**

### (3) NetWorkShops for Small and Mid-sized Companies

The NetWorkShops are designed to **bring small and mid-sized companies into cooperation with universities.**

Here we present actual cooperations between a company and an university to show the huge advantages these companies draw out of these projects in adapting the knowledge from universities into their typical problems.

This approach shall help to tear down the wall and **reduce the fear small and mid-sized companies mostly have concerning working with universities.**

- We've helped a mid-sized bakery to improve their returned goods dramatically. They learned on which products they earn the most money – not turnover.
- An engineering company developed from a pure supplier to a system supplier, which means they are now longer a 2nd but 1st tier supplier. – and nearly run bankruptcy because they were not able to adapt their processes to the new business model.

**With examples like these we want to encourage companies to look for joint projects with a university – with a positive learning effect on both sides.**

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- Bildungsatlas
- Net Work Shops

(4) Customized University Programmes as a Knowledge Driver for Companies

**Knowledge** especially for EMM is an extremely valuable **resource** and an important success factor.  
**Ways how to enlarge it !**

# (4) Customized University Programmes as a Knowledge Driver for Companies

## Portfolio of Executive Programmes at the University Ingolstadt

	Faculty Business Administration			Faculty Electrical Engineering and IT	Faculty Engineering
MBA/Master	Compliance and Corp.Governance 	IT-Management 	Transformation Management 	Electromobility 	Applied Computational Mechanics
	Health Care Management 	Human Resource Management	Real Estate Management Start 2012 (planned)		
Bachelor	Health Care Management 	Business Administration Industry Partners	Information Management  	Automotive Electrical Engineering 	Automotive Engineering 
					Industrial Engineer Industry Partners
University Certificates	Qualification for Finance and IT 	Sales Manager	Health Care Mgm Chief Physicians 	IT Security	Renewable Energy
					International Automotive

\* half of it are customized corporate programmes, one third are international

## Advantage of Academic Knowledge Transfer for Companies

- **Increased employer attractiveness**
  - Academic programmes for employees are highly valued
  - Possibility for high performers and potential development
  - An attractive marketing instrument
- **Protection against skills shortage**
  - Use of so far unused potentials of technicians for engineering tasks
  - Possibility for qualification for new topics (e.g. Electromobility)
- **Development of required competencies for new technologies**
  - Use of the state of the art knowledge at university from research and teaching
  - Focus of the programmes on specific knowledge gaps of the companies
- **Impulse for the whole organization**
  - Project work and „problem based learning“ guarantee an immediate transfer of the newly acquired knowledge into practice
  - Participants become effective as multipliers in their departments and create a learning organization

## Advantage of Academic Knowledge Transfer for Companies

MBA/  
Master



BMW is a key player in the automotive premium segment.  
The automotive industry is at the step to a totally new technology.  
BMW defined a new segment: the i-series.  
BMW has sufficient engineers for automotive engineering (perhaps too many in some years).  
Too few electrical engineers who are skilled to develop and build electric cars.

**The customized master programme „Electromobility“ converts industrial engineers to electrical engineers.**

Bachelor



BMW already has too few engineers, with the demographic shift even less in the near future.  
Increasing automation and efficiency needs more technical academic employees (and perhaps fewer pure technicians).



Major fields of technical relevance are automotive engineering and automotive electrical engineering.

**The customized Bachelor programmes „Automotive Engineering“ and „Automotive Electrical Engineering,, develop pure technicians to academic engineers.**



## Self Conception

We see ourselves as a **premium provider** of extra-occupational executive programmes.  
For us, **Premium** means:

- **customized contents** adapted to the needs of the specific company
- above-average **quality of lecturers** (provided by specific selection procedures, ongoing evaluation, performance-based remuneration)
- confirmed **practical relevance** (number-one university in the German-speaking countries according to official University Ranking)
- **action- and transfer-oriented**, i.e. implementation of input into one's own professional work
- **continuous development** of participants' competencies (confirmed by rankings and feedback)
- visible **deliverable improvement** and personal development of participants at their **workplace**

**You cannot deliver premium products with average people**



# Thank you very much for your attention!

