

### LCS-R Net, 2<sup>nd</sup> Annual Meeting Berlin

20.-21. September 2010

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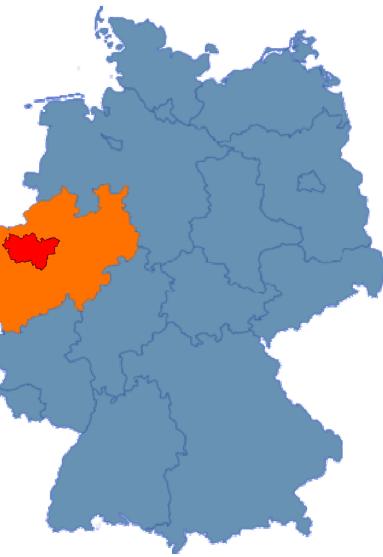


### **Facts and figures**

The Ruhr Area: Industrial heartland in the state of North-Rhine Westphalia, Germany

RUHR.2010

- Metropolitan region (53 cities and municipalities)
- Population: 5.3 million
- Industrial heartland of Germany: coal mining and steal production
- Since the late 1980s: structural transformation of the region
- European cultural capital 2010:





## Initiativkreis Ruhr: Ruhr

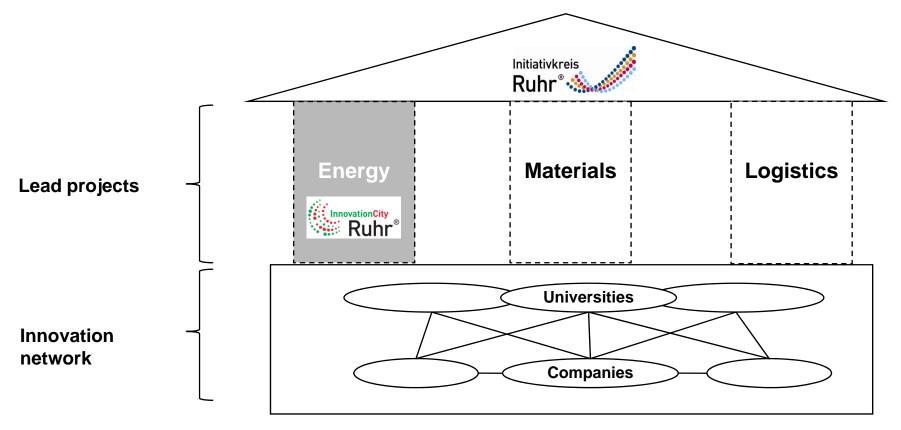
- Founded in 1989
- Association of 61, mostly German based, multinational companies
- Objective: the future and economic transformation of the metropolitan Ruhr area





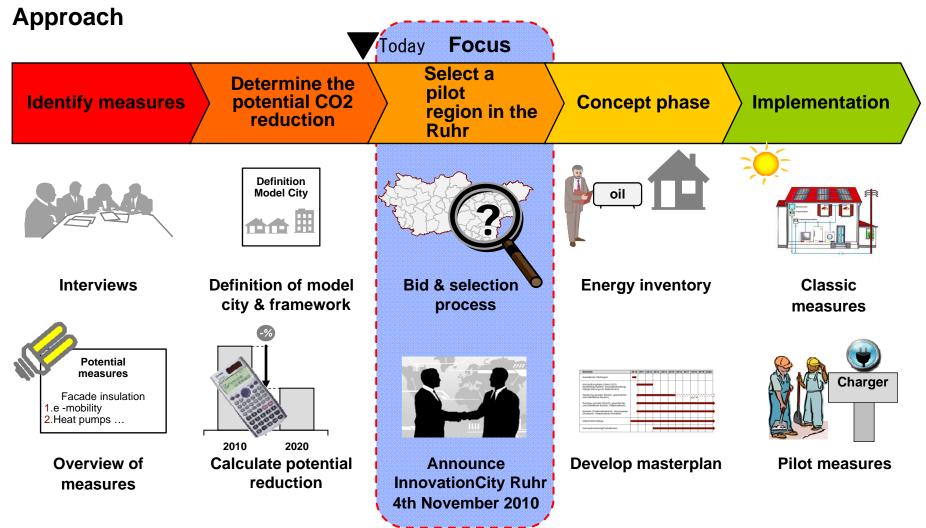
# Fields of structural transformation: energy, materials, logistics

InnovationCity Ruhr addresses a low-carbon society





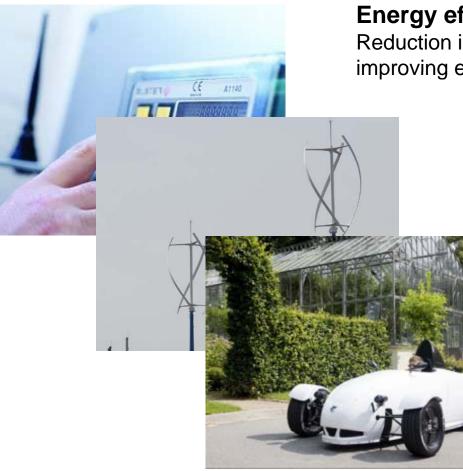
## InnovationCity Ruhr: Companies bundle their innovative power





### The comprehensive approach includes both classic and highly innovative measures

#### Areas for action



#### **Energy efficiency**

Reduction in energy consumption through improving existing technologies / infrastructure

#### **Energy generation**

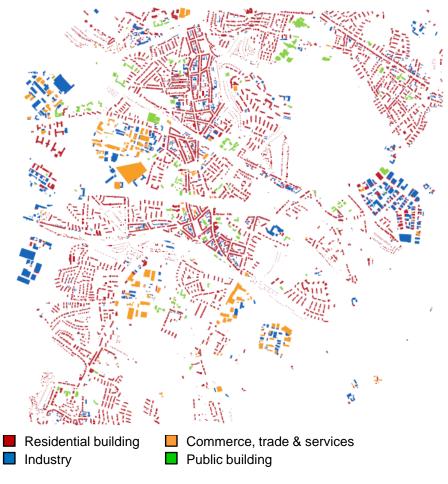
Use of alternative technologies (focus on distributed solutions) to generate electricity and heat (space + process heat)

### Mobility

Offer improved and novel mobility concepts without limiting personal mobility freedom

# A model city typical of the Ruhr region was defined to calculate the potential $CO_2$ reduction. Result: -50%

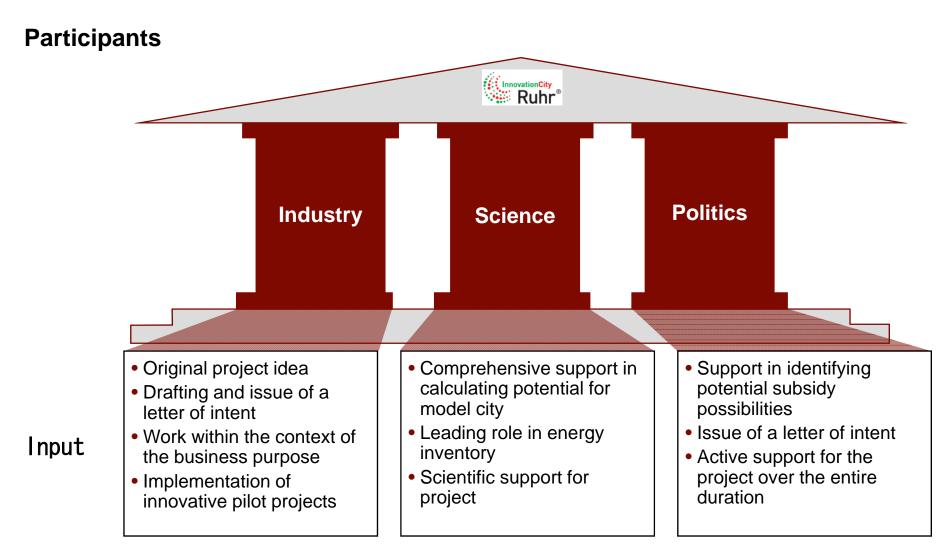
#### **Definition of model city**



- Ruhr-typical model city with total population of approx. 50,000
- Residential buildings have a share of approx. 63% in total stock of building surface area
  - Distinction between three different types of building: Single-family houses (40.2%), Two-family houses (14.4%) and Multi-family houses (45.4%)
  - Further breakdown into seven building age classes
- Non-residential buildings (approx. 37% share in total stock of building surface area) are looked at separately by type of use because energy needs vary strongly



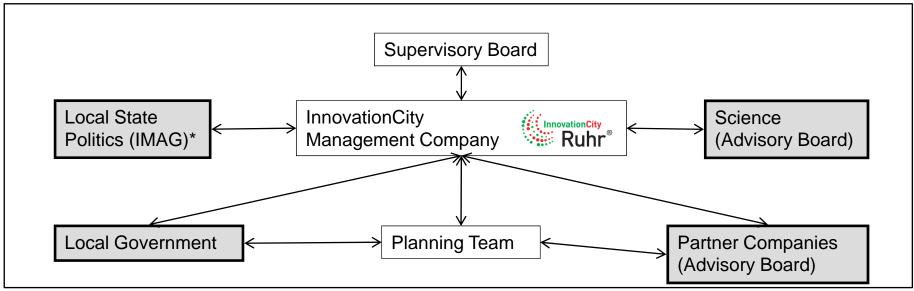
## Practical implementation is a joint project of industry, science and politics: "PPP"





# Initiativkreis Ruhr and the State of North Rhine-Westphalia create InnovationCity Ruhr management company

The stakeholders:



\* IMAG = Interministerial Working Group



## Scientific support: analysis and evaluation of the entire process

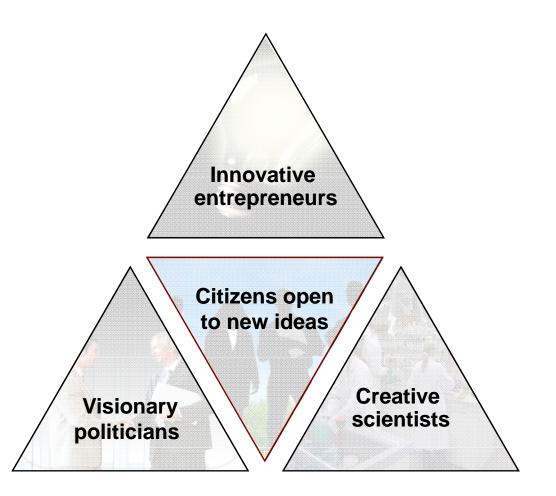
#### **Overview of topics**

	Socio-cultural dimension	Physical/spatial dimension	Technical dimension	Economic business models	Systemic dimension
Living	Institute of Advanced Study in the Humanities	Urban planning insti- tutes of the univer- sities of Dortmund and Duisburg-Essen	Wuppertal Institute, InHaus Zentrum, FH Hamm-Lippstadt, University of Bochum	Rhine-Westphalia Institute for Economic Research	Wuppertal Institute, universities of Dortmund and Duisburg-Essen
Mobility			University of Bochum, University of Duisburg-Essen	$\downarrow$	↓ ↓
Climate adaptation		$\downarrow$			
Communication	$\checkmark$				



## All sides involved have to act in concert for the project to be successful

**Success factors** 



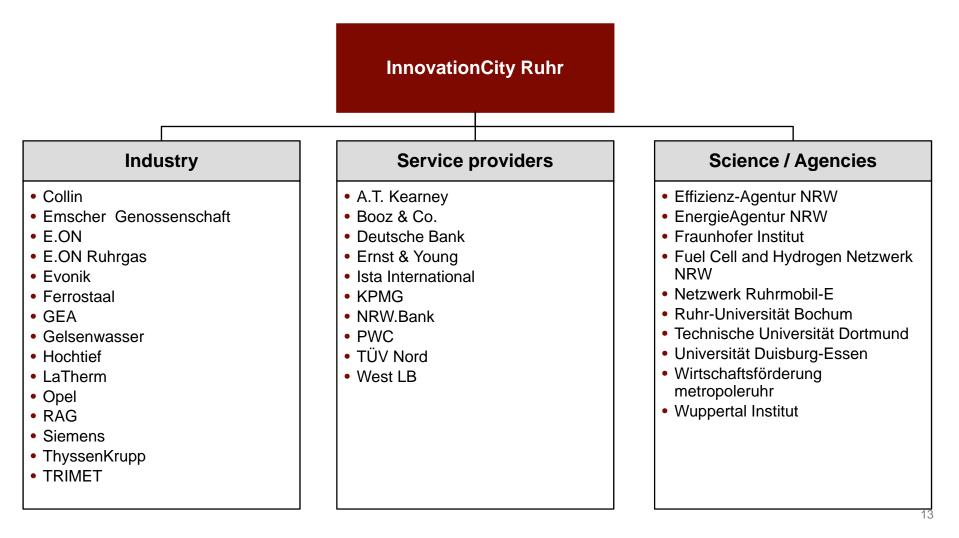


### Backup



# Many different companies participate in the "InnovationCity Ruhr" project

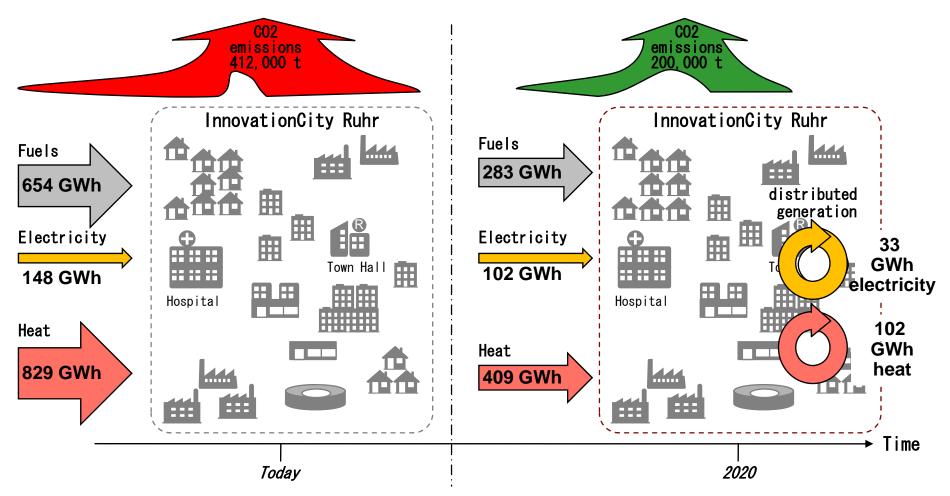
#### **Participating companies**





### In total, significant energy savings might be realised

#### Change in energy need



Source: ILS; TRC; Initiativkreis Ruhr; A.T. Kearney