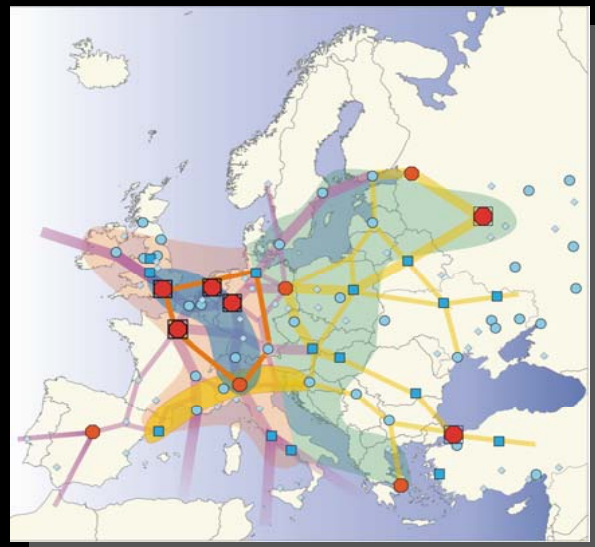
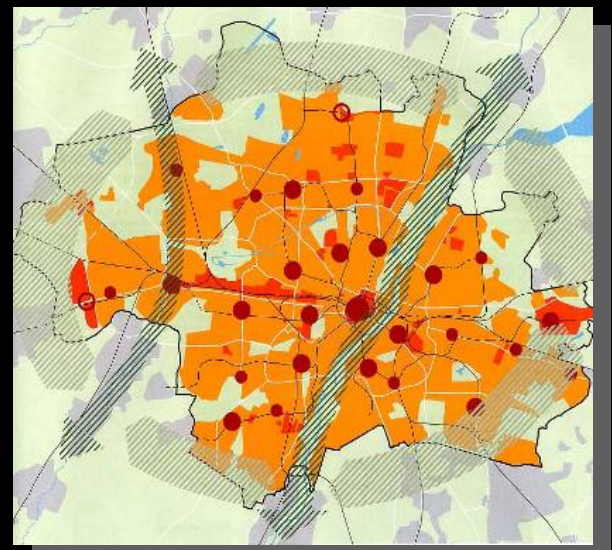




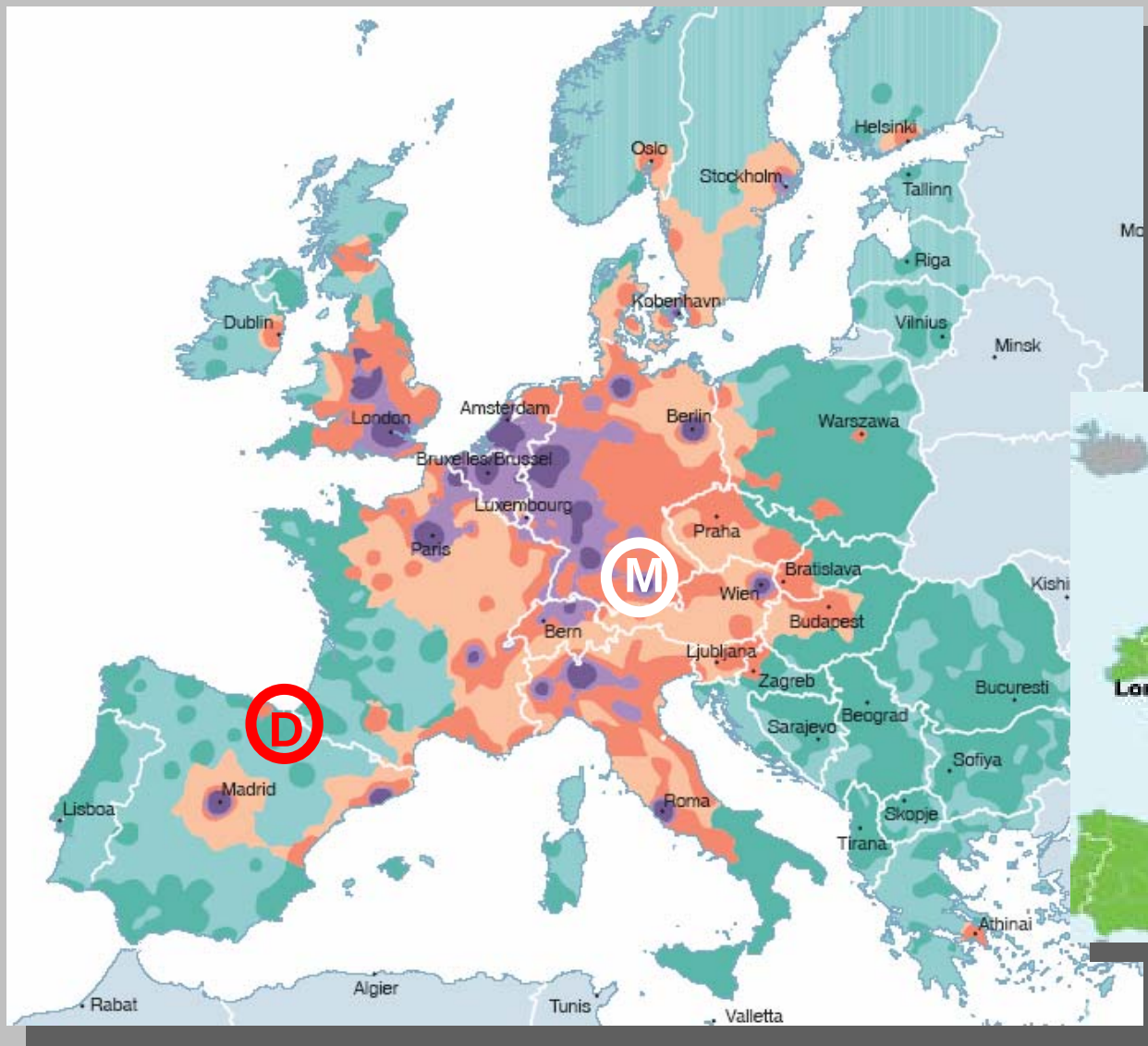
Stephan Reiss-Schmidt

European Metropolitan Regions in Transformation:

Sustainable Development Strategies - the Munich Case

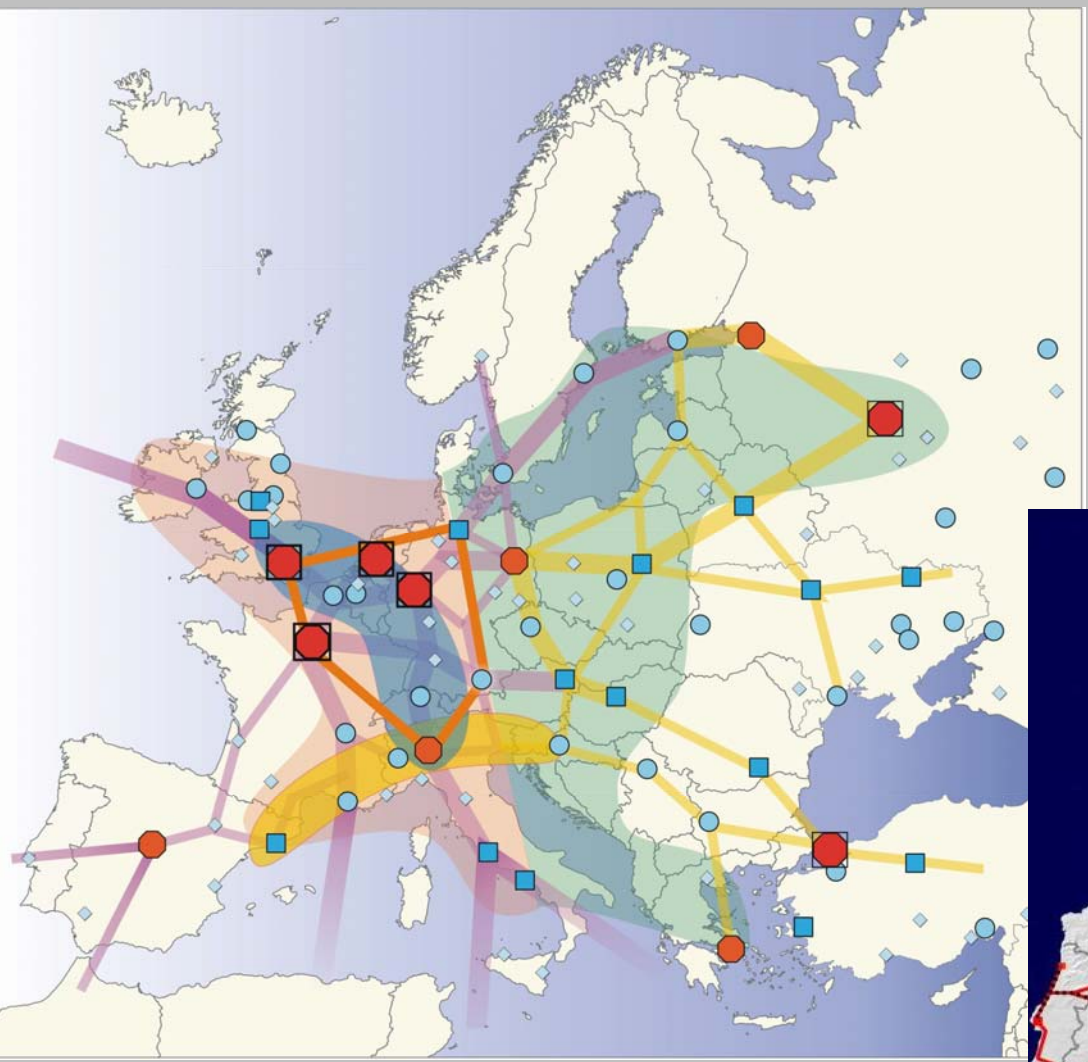
1. **Europe - a Continent of Cities**
2. Future Challenges
3. Principles of Sustainable Urban Development
4. The Munich Case
5. Lessons learnt

Europe – a continent of cities



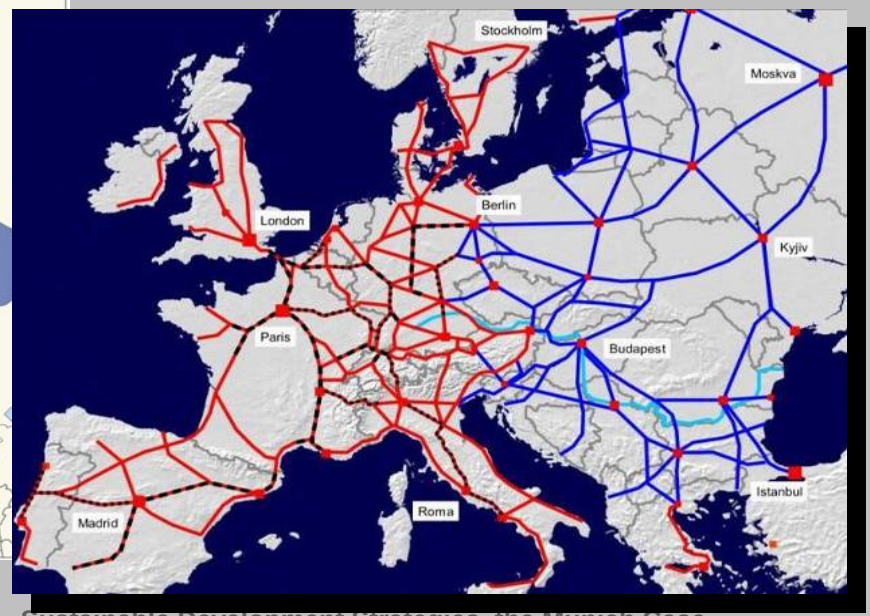
Four out of five Europeans live in towns and cities

Europe – a continent of cities



- Social and economic cohesion
- Clusters of competition
- Polycentric urban system
- Trans European Networks
- Cooperative process - territorial governance

Territorial Agenda of the European Union 2007



Leipzig Charta on Sustainable European Cities 2007

- European cities are **valuable** and irreplaceable economic, social and cultural **assets**
- **Integrated urban development policy** - establish a national framework

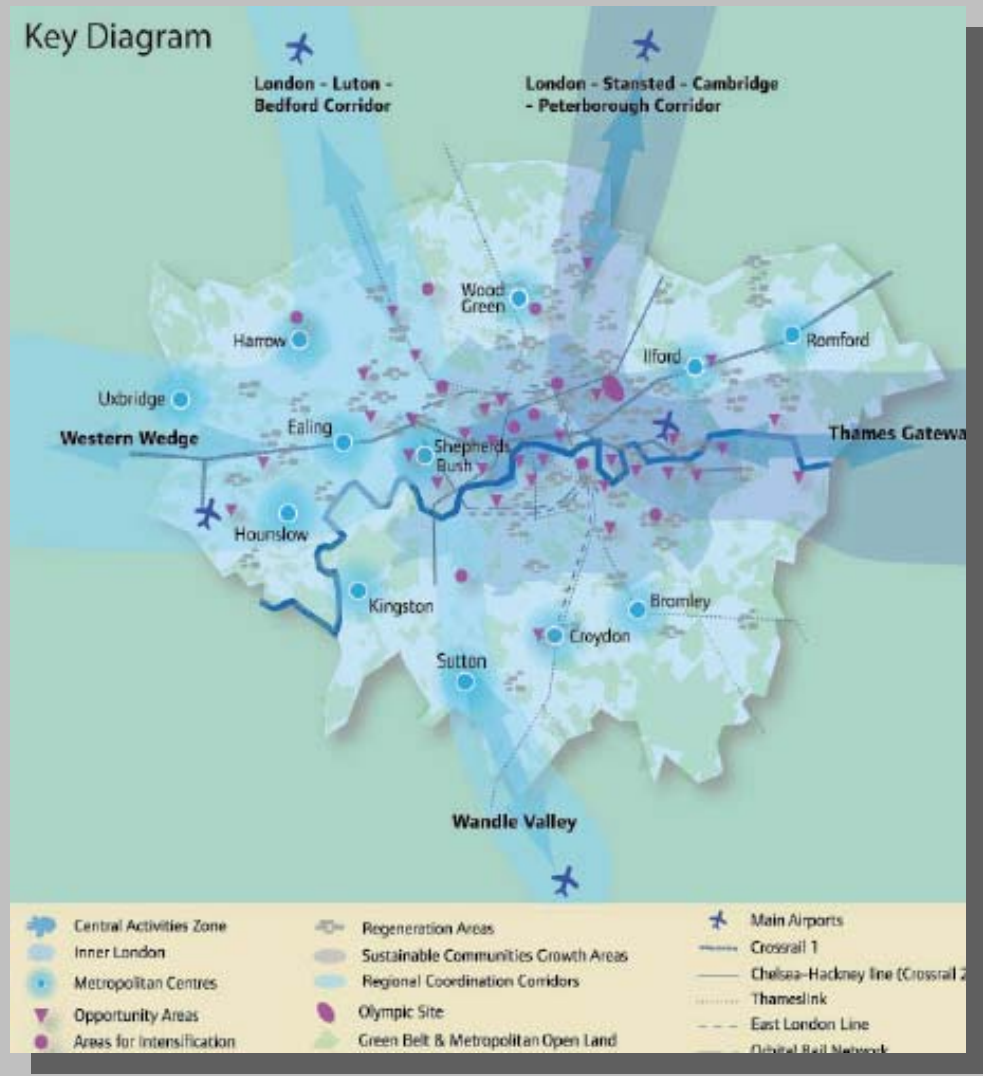
Toledo Declaration 22.06.2010

Presidencia Española eu 2010.es

TOLEDO REFERENCE DOCUMENT ON INTEGRATED URBAN REGENERATION

- **Special attention for deprived neighbourhoods:**
  upgrading physical environment, strengthening local economy, proactive education and training policies, efficient and affordable urban transport

London:
good metropolitan governance



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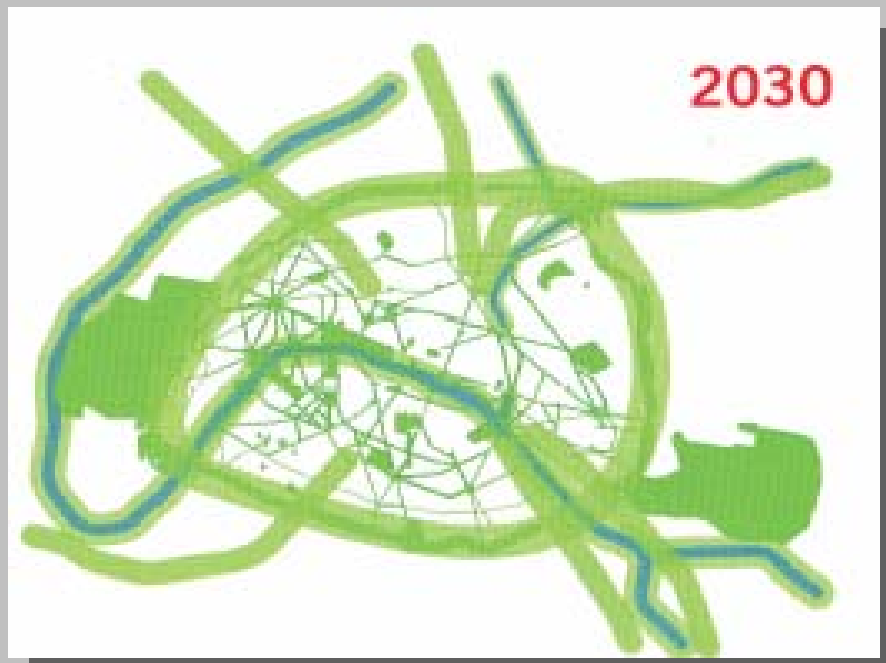
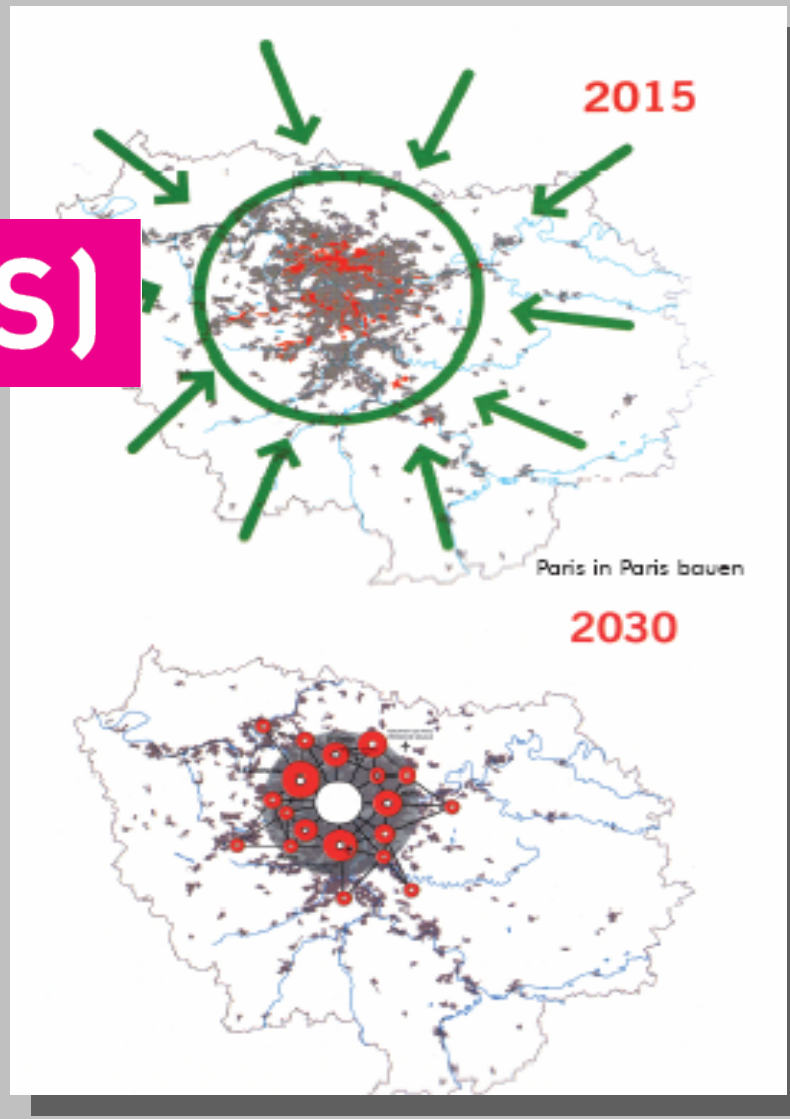
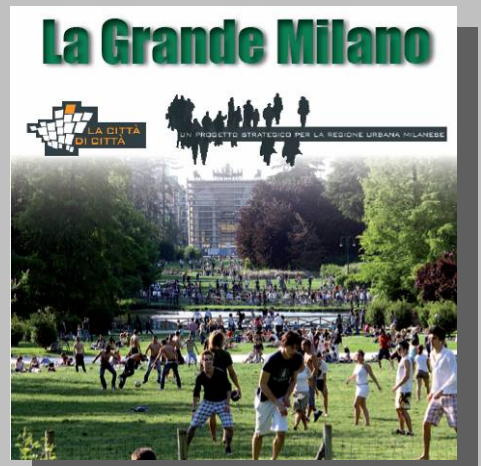
Le Grand Paris: visions for the future

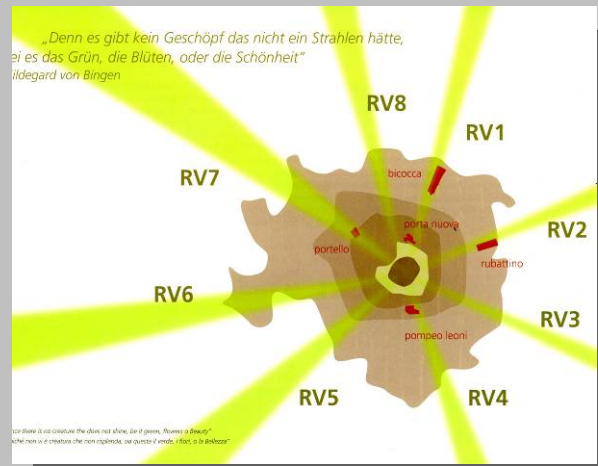
Le Grand Paris(s)



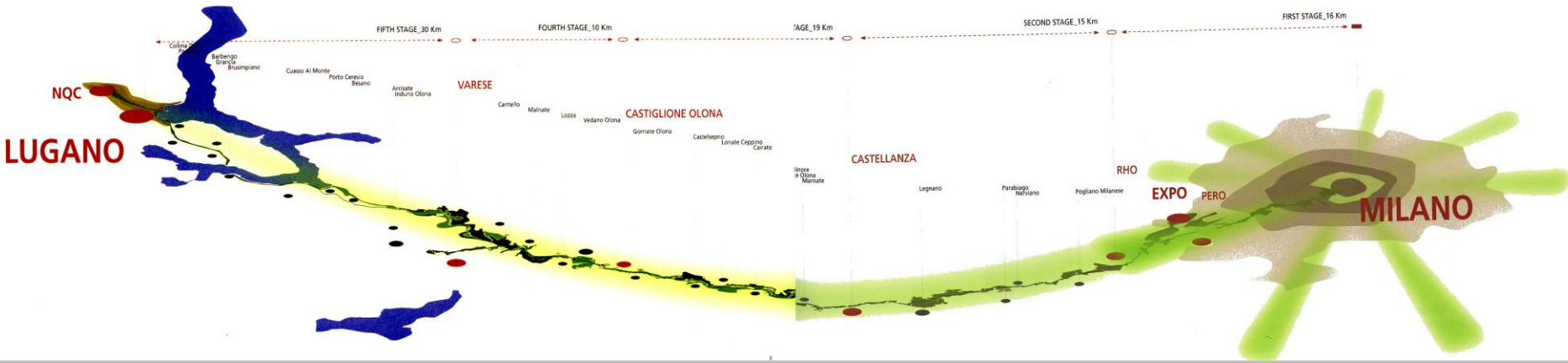


Grande Milano: The City of the City – Green Rays – EXPO 2015





MI-LU: 75 km green vision as territorial enhancement strategy.



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Metropoolregio Amsterdam: Project areas and city marketing

I amsterdam®

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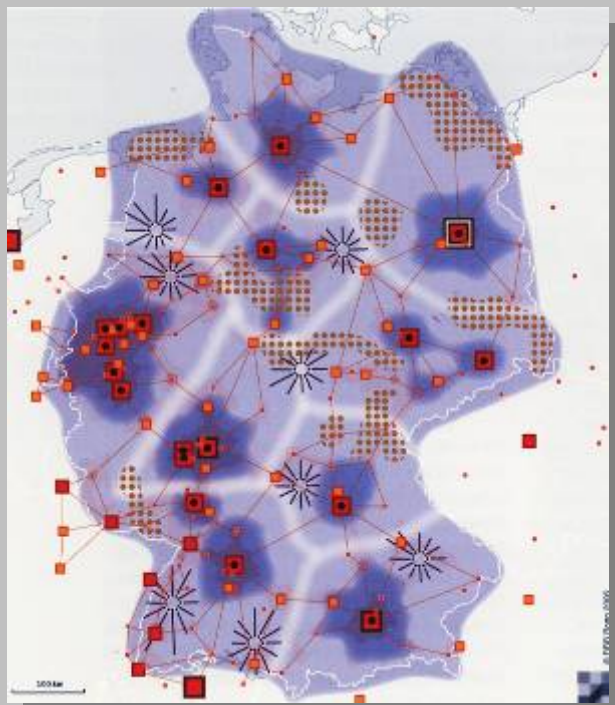
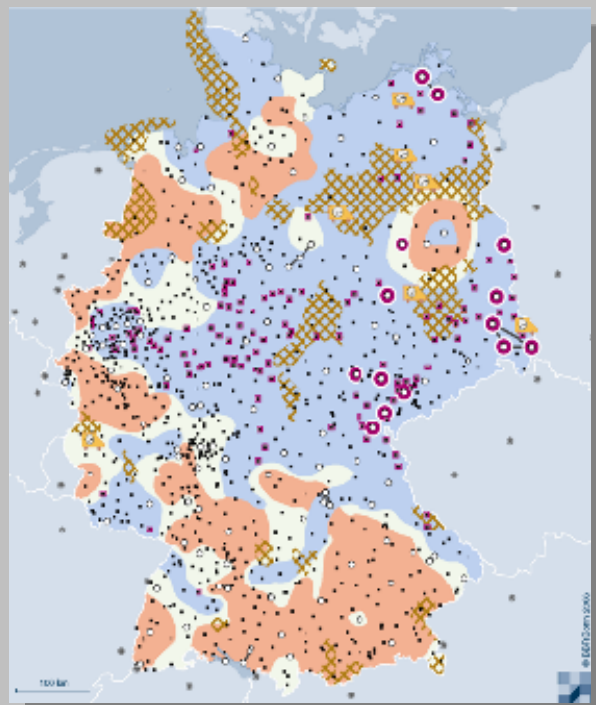
Territorial cohesion:
3 guiding development models in Germany

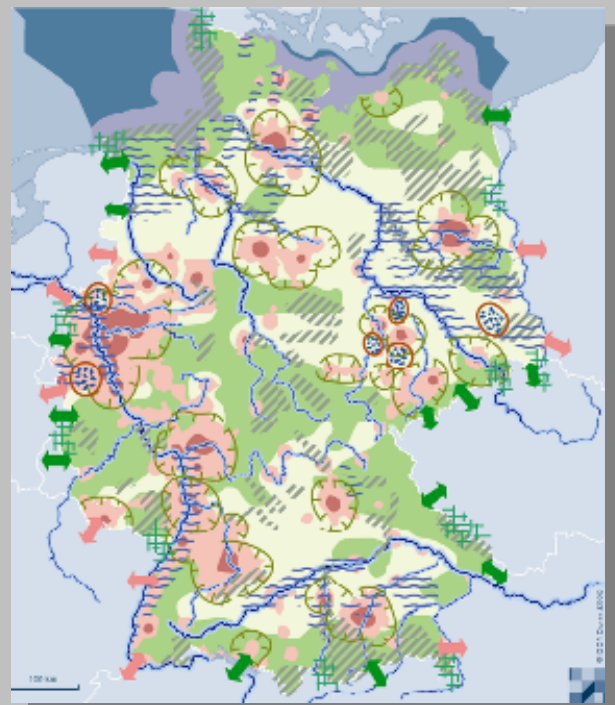
Innovation and growth:
10 Metropolitan Regions



Accessibility and pro-
viding public services



Protection of resources
and cultural landscapes



1. Europe - a Continent of Cities
2. **Future Challenges**
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- **Global knowledge economy -** competition of cities, new drivers of spatial development, privatisation of public services
- **Metropolisation -** networks of cities, from local to regional
- **Acceleration -** quick and unpredictable changes
- **Climate change and "peak oil" –** mitigation and adaptation
- **Social and demographic change, migration -** risks of depopulation, ageing, social segregation
- **Governance and cooperation -** from top down to bottom up

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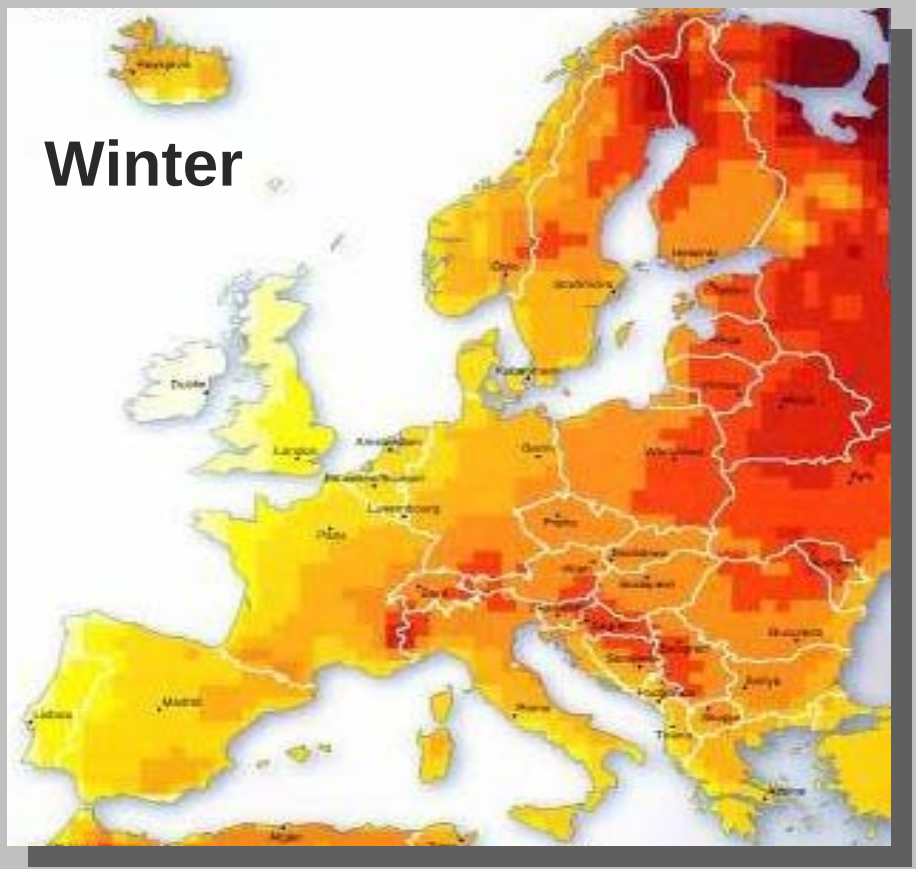
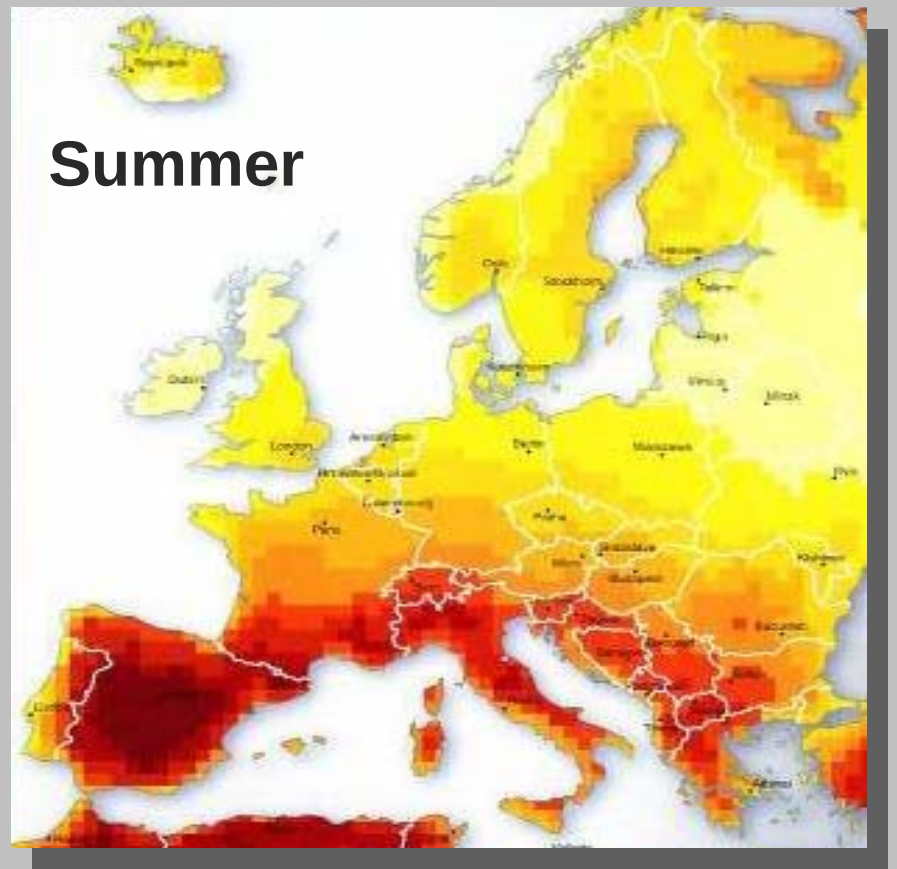
Temperature scenario 2100: average increase +2 to +6 °C





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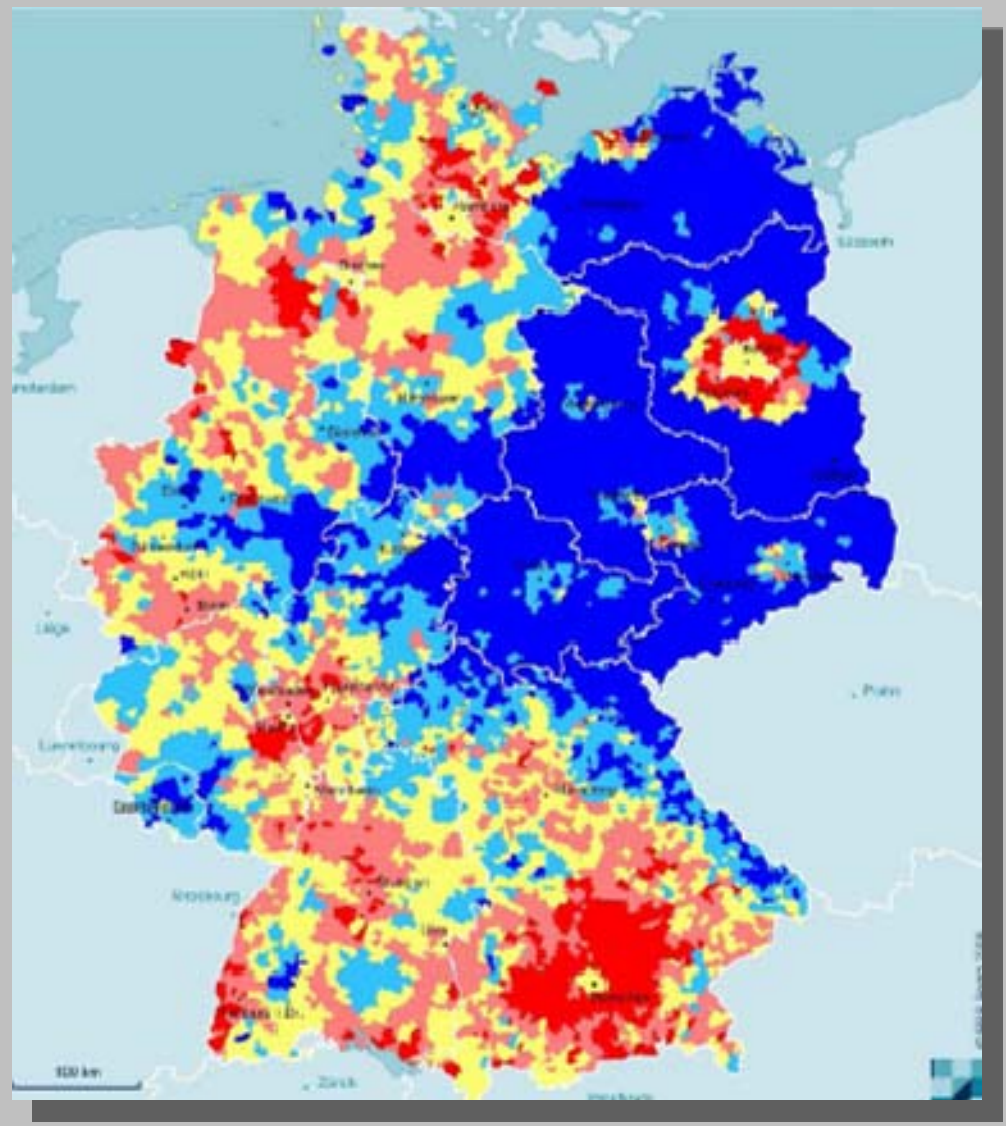
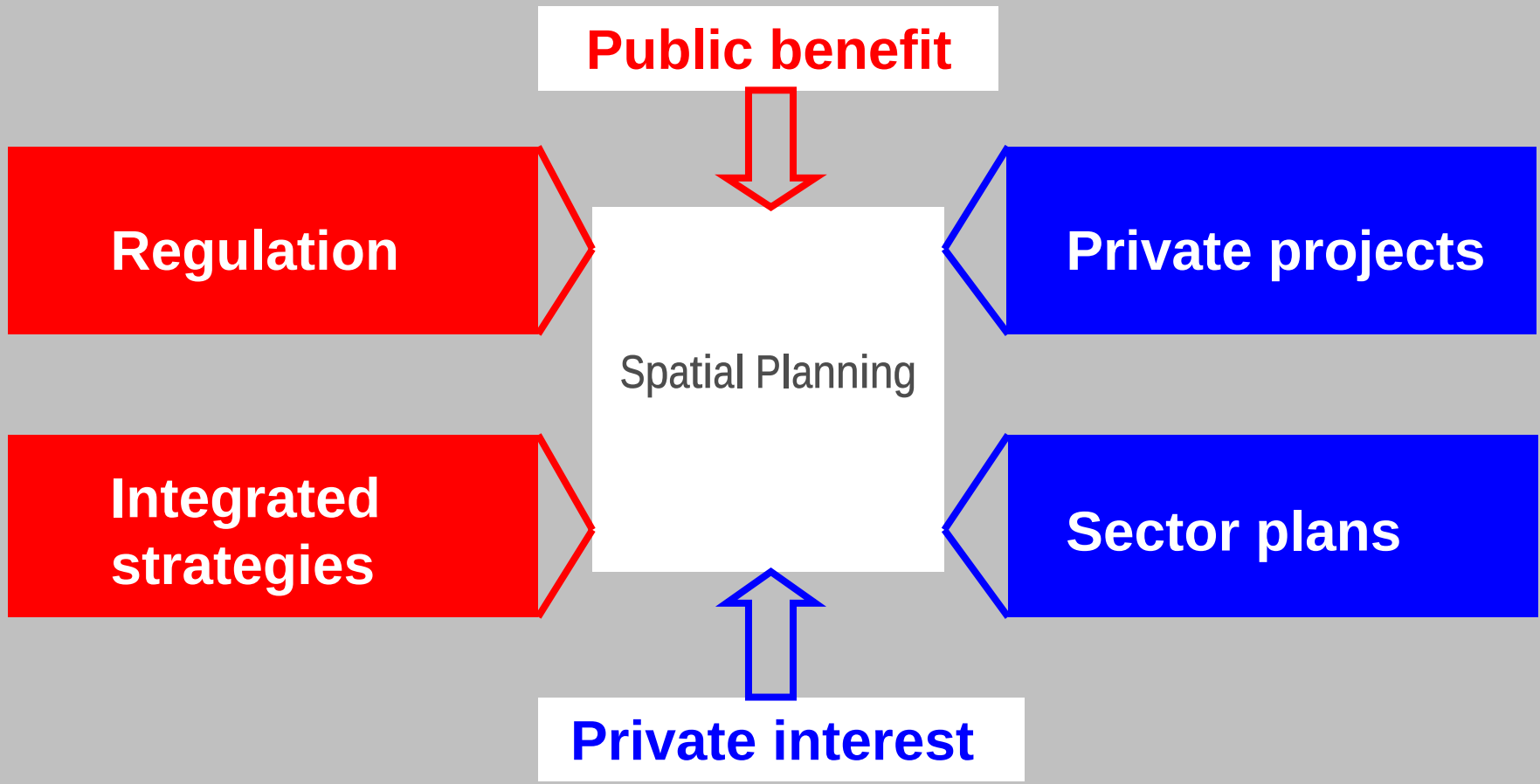
Germany 2025:

Growing and **shrinking**
cities and regions



Challenges for spatial planning



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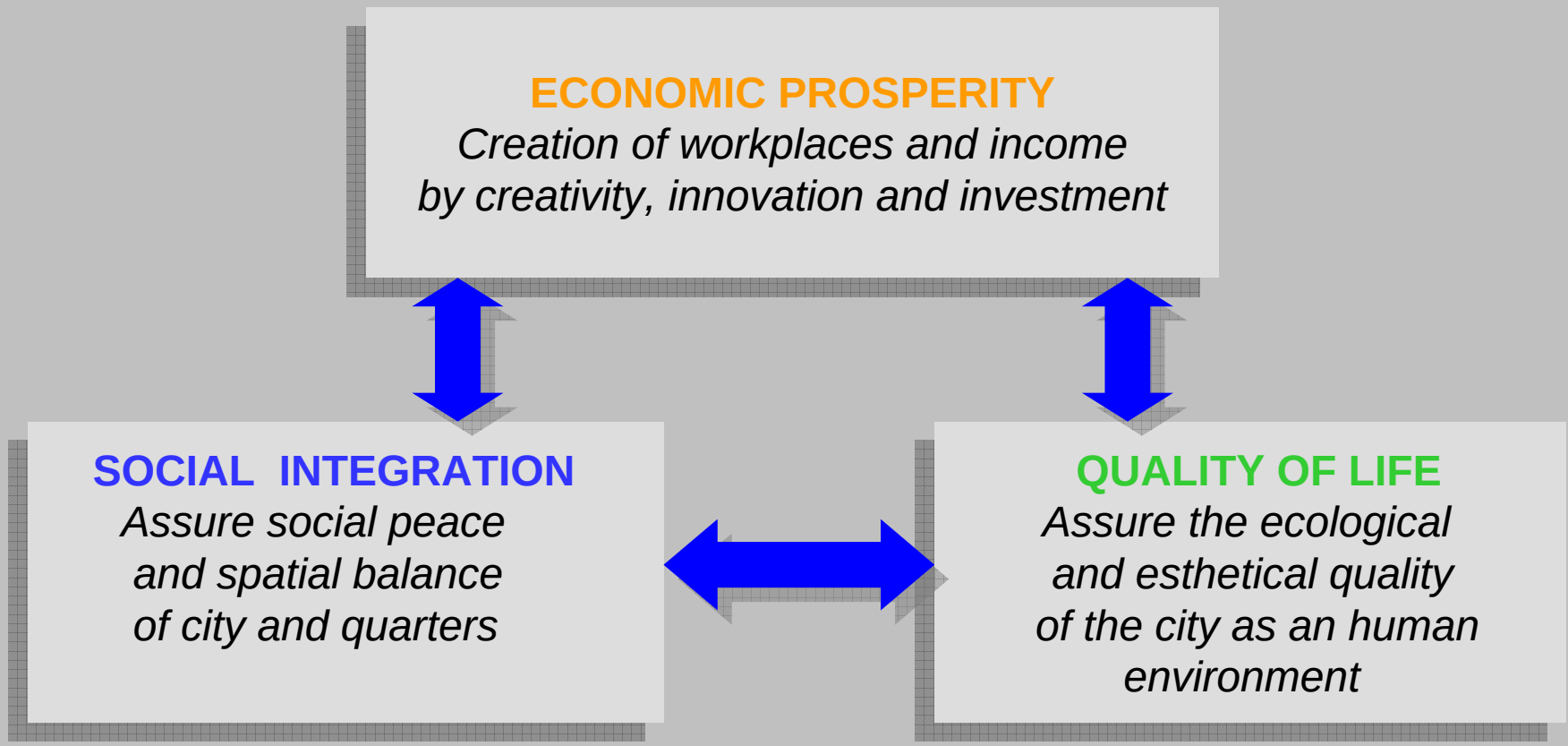
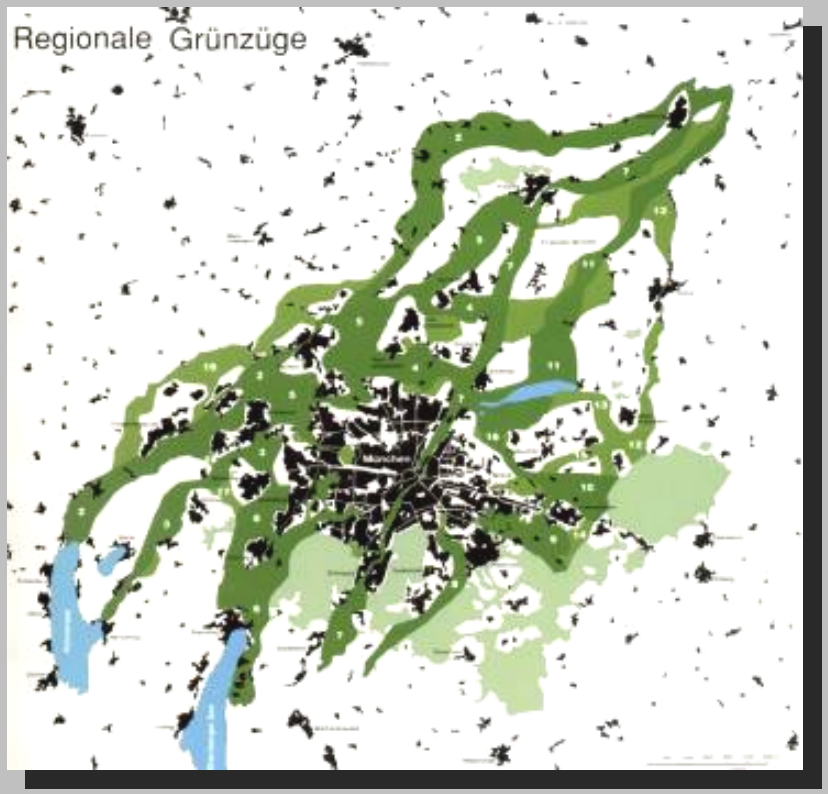
Sustainability - long term balance of needs and resources



Greener regions and cities:
regional cultural landscapes, green belts and networks, parks, urban gardening and agriculture



Inner development:
compact, dense and energy efficient, short distances…

Car free mobility:
public, bicycle, feet

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Post – fossile, renewable energy:
sun, wind, water, bio-gas,
geothermal energy

More efficient use of energy:
new and existing buildings, traffic, industry, water and waste water treatment…

50%

of the energy consumption and CO2 emissions in Germany result from the construction and use of buildings

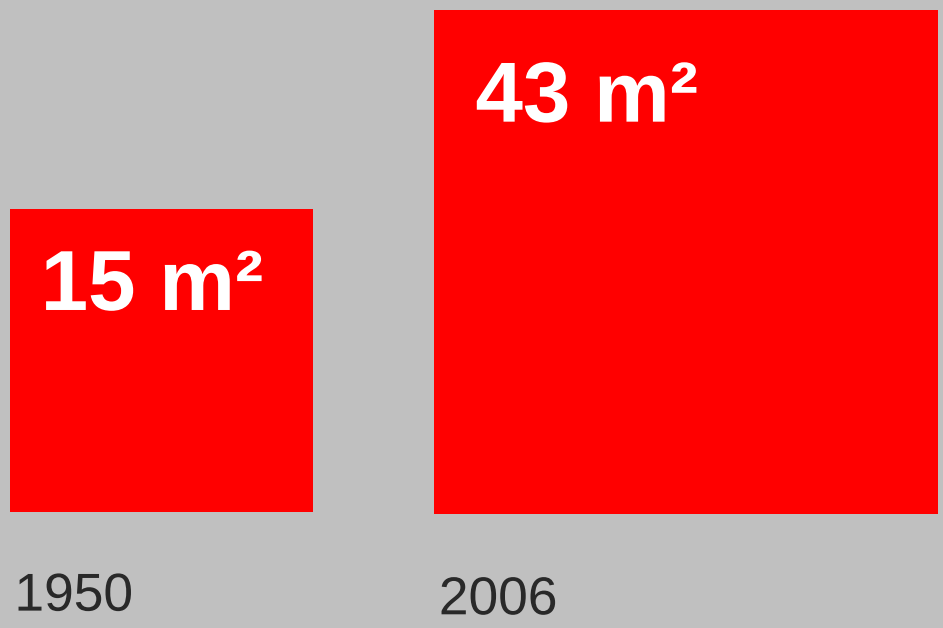
20%

result from traffic.

Floor space per capita in Germany

+ 186% in 56 years–

Are there limits of growth?



Floor space per capita 2005

Bavaria:	**43,3 m²**
Munich:	**38,8 m²**
Hamburg:	**38,9 m²**

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Munich European Metropolitan Region

Munich European Metropolitan Region:

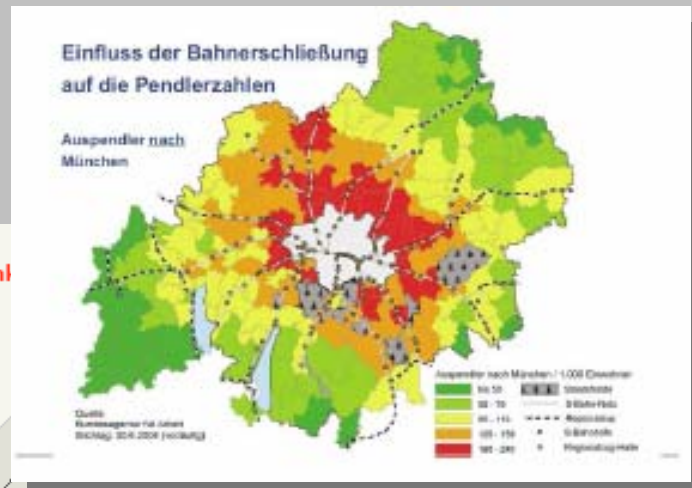
6 Mio. inhabitants,
25‘500 sqkm
2 million employees
BIP 200 billion €

Munich City Region

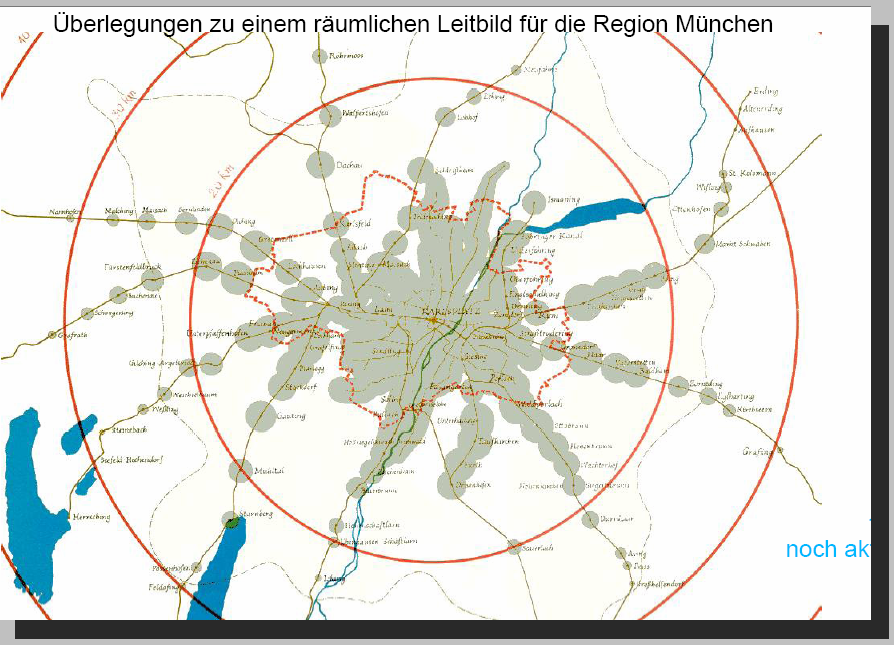
2.6 mio. inhabitants
5’200 sqkm
185 cities and
municipalities

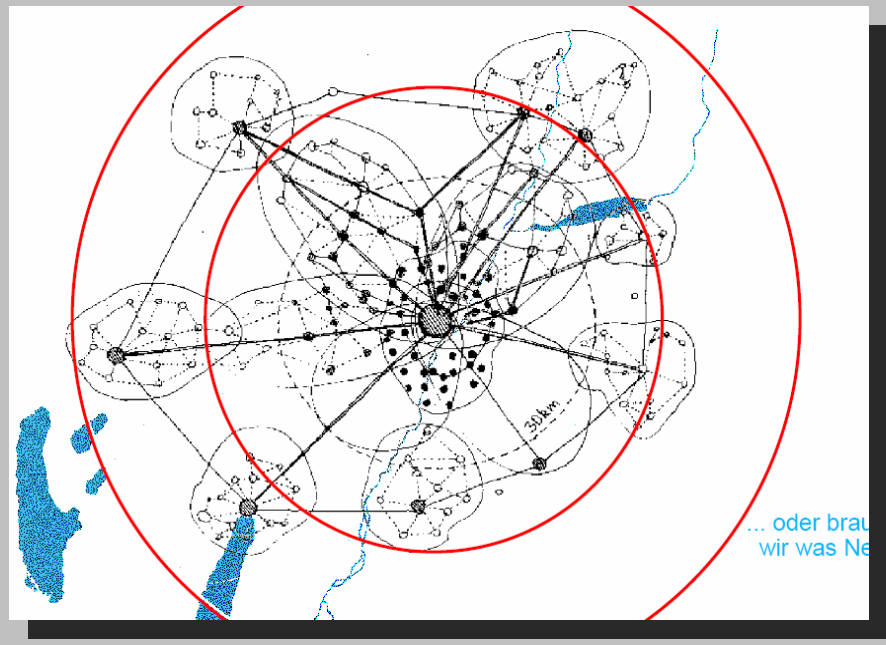
City of Munich

1.35 mio. inhabitants
310 sqkm



Munich Region:
Scenarios for the spatial structure of a growing region



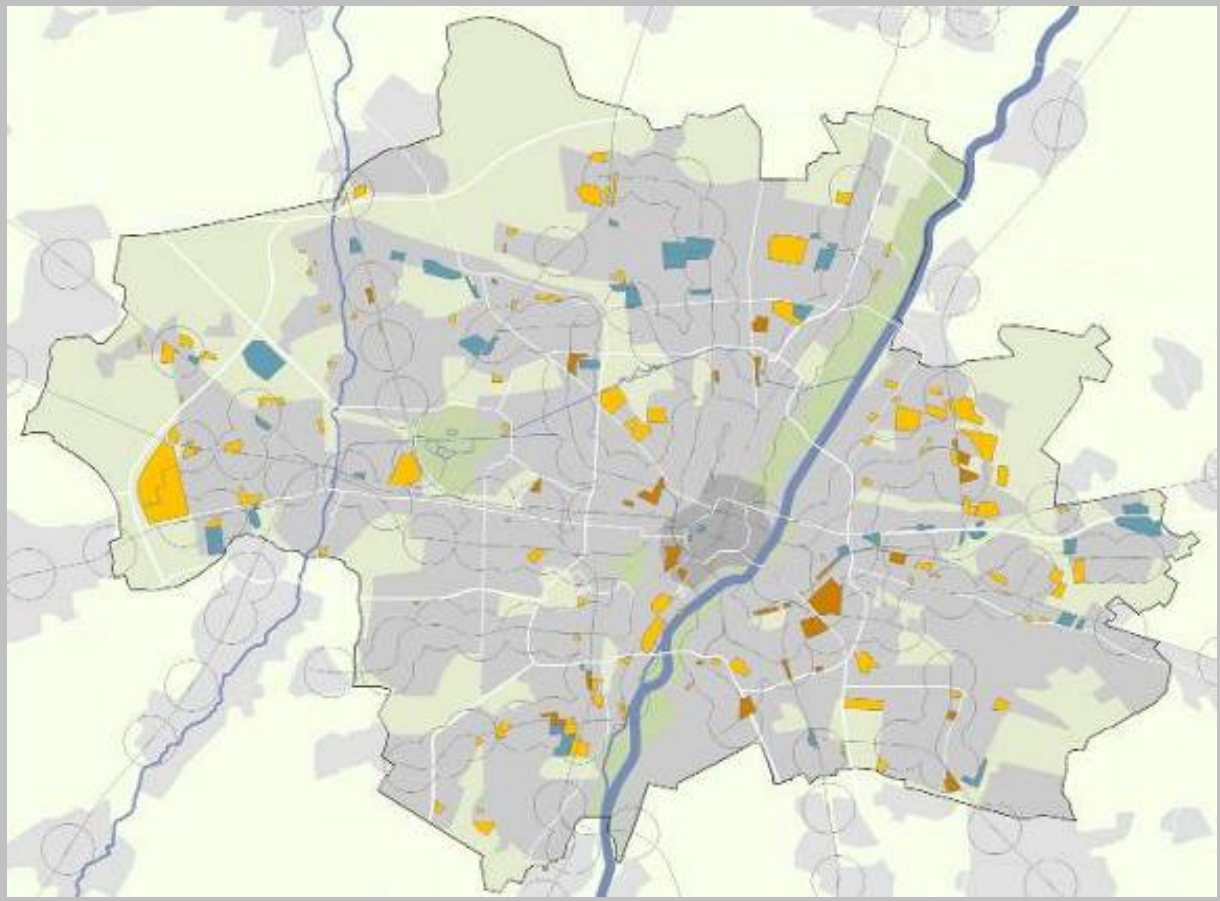


Integrated development concept PERSPECTIVE MUNICH

Key strategies

- **Identity and liveability –** listed buildings, historic patterns urban design *(“Baukultur”)* as a resource…
- **Social inclusive planning -** housing, education, health…
- **Inner development, urban renewal -** compact and polycentric, mixed use, smart growth…
- **Green networks, parks and landscapes -** qualification of public spaces, urban agriculture, preservation of natural resources - soil, flora/fauna, water, air quality…
- **Climate proof development -** “carbon free city” and adaptation strategies…
- **Sustainable mobility -** feet, bicycle, public transport, e-mobility…

Inner development – long term regional settlement strategy



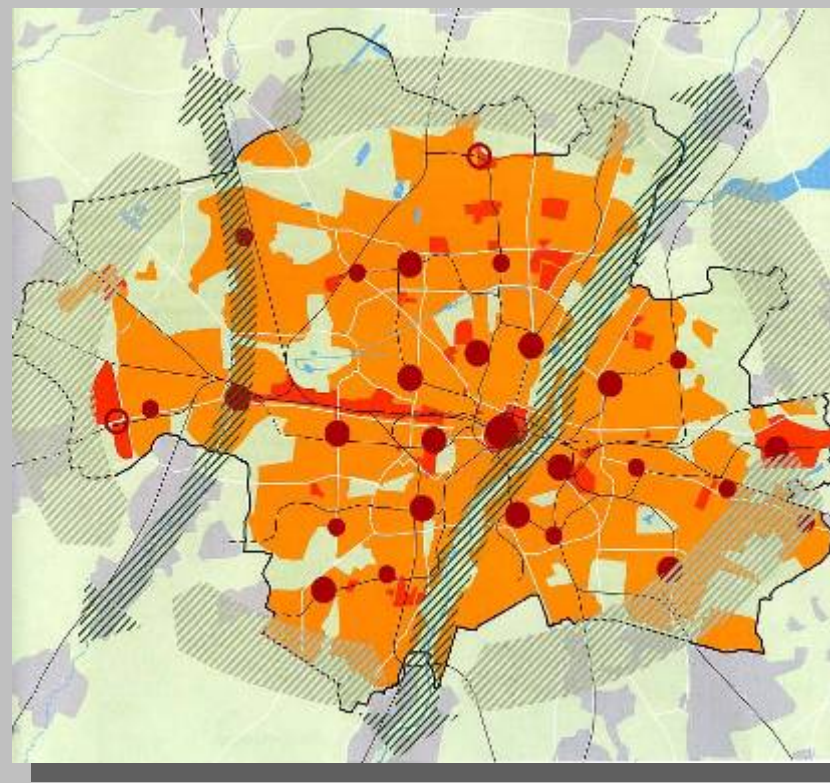
Conversion

Qualified Density

Definition and quality of urban fringe

Regional cooperation

Compact, urban, green



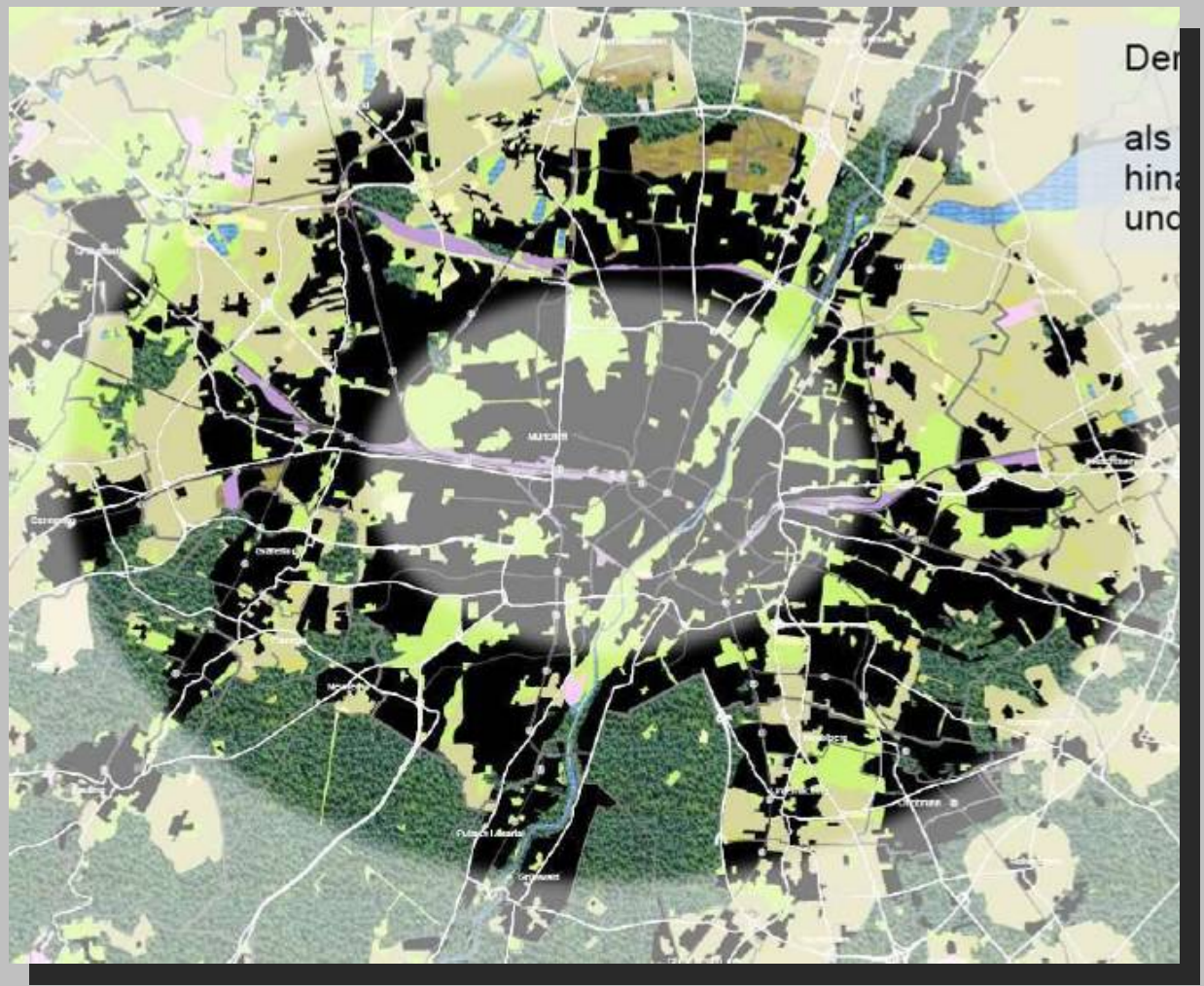
Munich Region: Green belt as connecting element

Space for urban agriculture
and urban gardening
(“Krautgärten” – “herbal gardens”

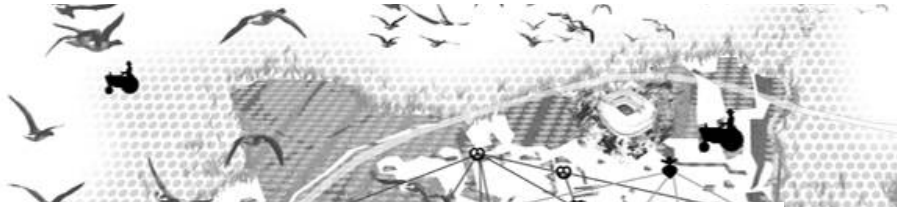
Space for recreation

Space for natural habitats

Space for renewable energies



AGROPOLIS: Urban agriculture in Munich

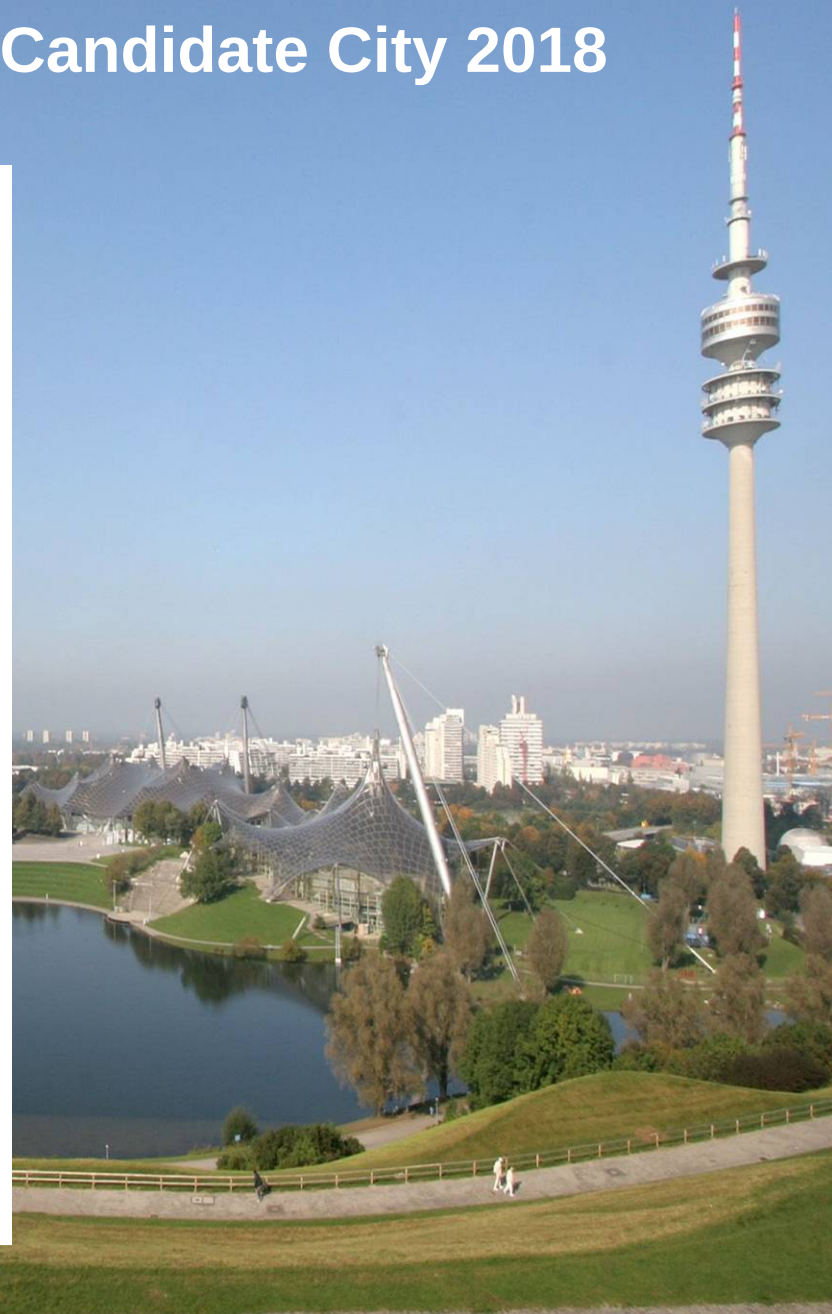


Re-naturalization of River Isar

8 km, 28 mio.€ investment for extending the bed from 50 to 90 m, better flood protection, better water quality, new habitats, recreation, leisure …

Olympic Park of 1972 – Munich: Candidate City 2018

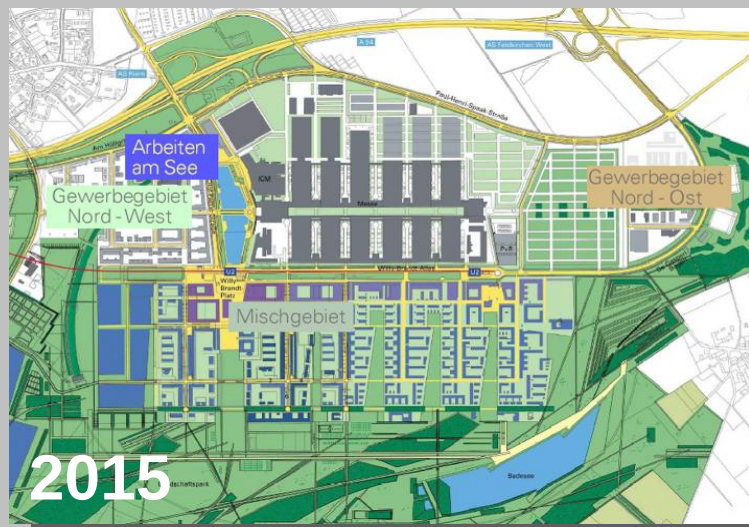
- Successful use as leisure and sports park after Olympic Games 1972: 4 mio. visitors annually.
- Extraordinary landscaping and architecture, listed buildings and ensemble – architecture as an image-factor.
- Sustainable development respecting the existing qualities by enlargement of the park, better orientation and accessibility.
- Visual concept, maintaining-concept, renovation of stadium and hall, replacement of ice – and bicycle arenas.
- Energy efficient (“plus energy”) Olympic Village.
- Environmental concept/program is part of the sustainable application.



Compact, urban, green

Trade Fair City Riem

Conversion of former airport
560 hectares
15’000 inhab., 13’000 empl.



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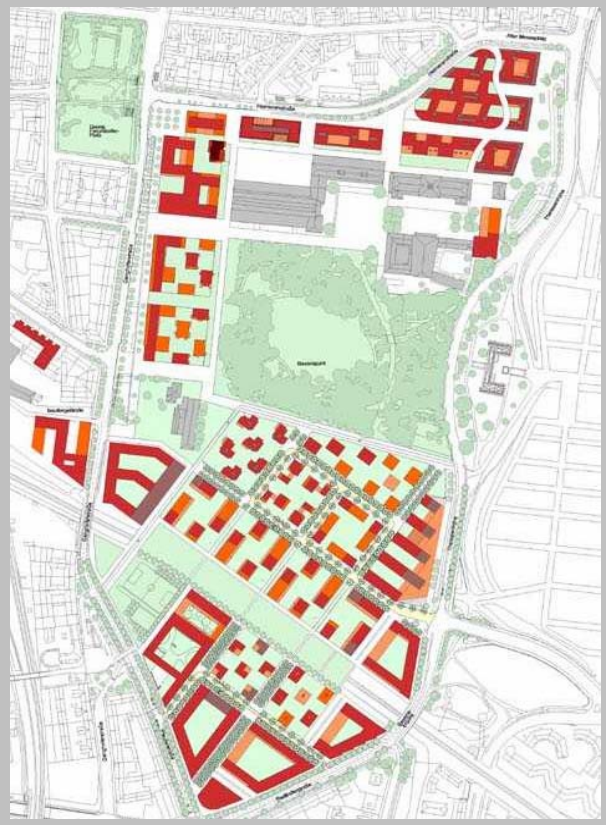
Central railway lands re-urbanisation

Former trade fair area



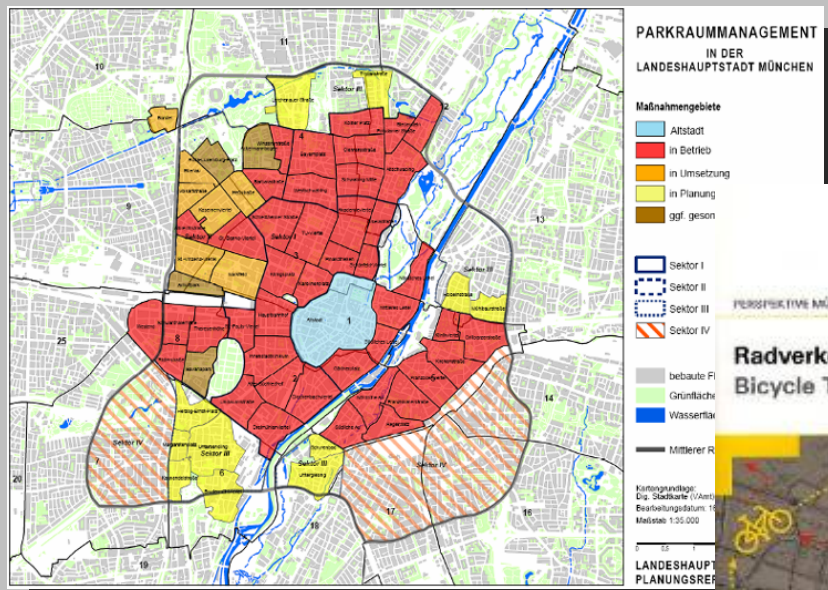
Former AGFA-factory

Former Prinz-Eugen-Barracks: 1’600 new dwellings

Competition 1st price:

GSP Grüner, Schnell und Partner
mit Rainer Schmidt,
Landschaftsarchitekt München

Short distance mobility by bicycle and feet
Management of parking in the inner city



Public transit development

S-Bahnnetz

S-Bahn

Haltepunkt

U-Bahnnetz

U-Bahn

Haltestelle

Straßenbahnnetz

Straßenbahn

Haltestelle

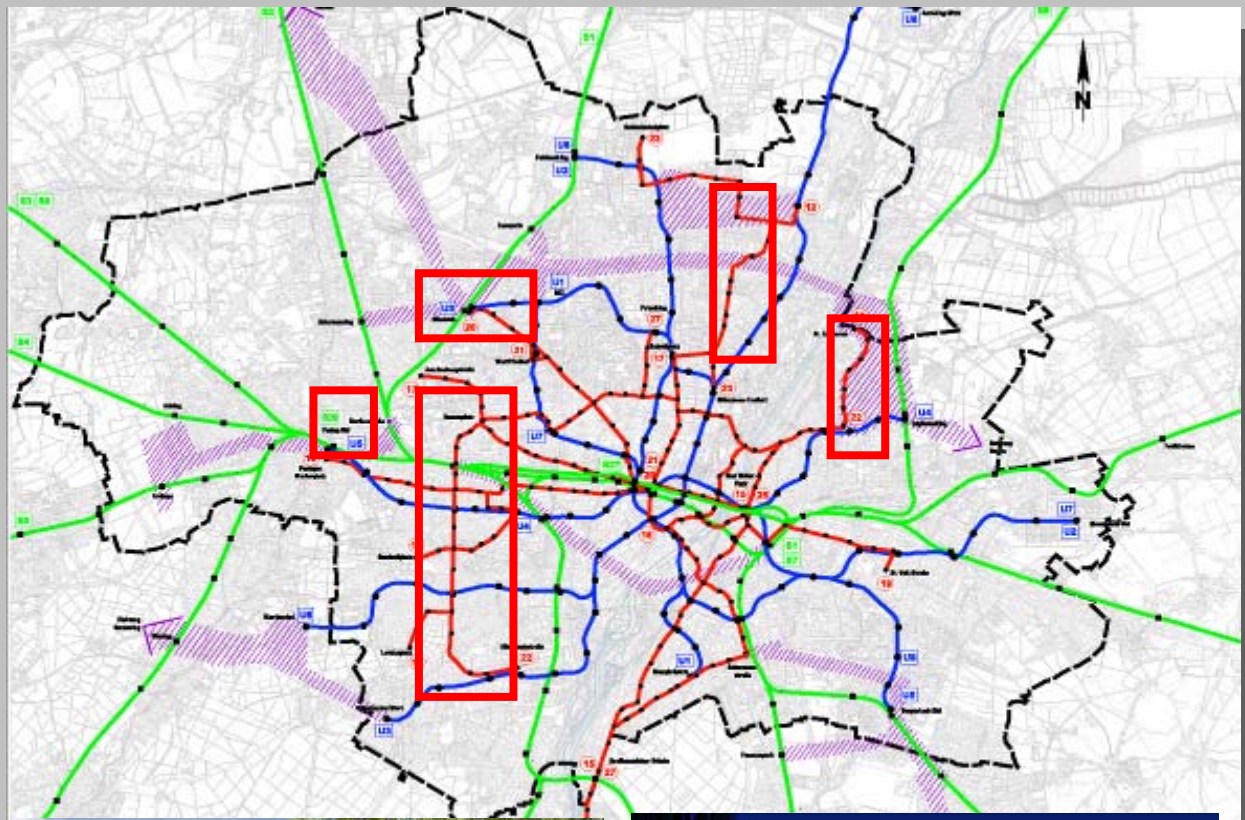
S8 U6 18 Beispielhafte Linien-nummerierung

Optionale Maßnahmen

Korridor für Netzergänzung

Haltepunkt

Stadtgrenze



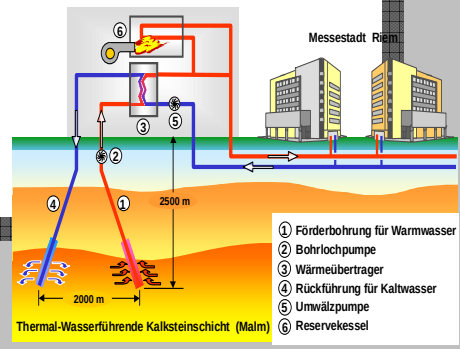
PM Guideline Ecology - Climate Protection 2008

- Inter institutional and inter disciplinary working group
- 5 fields of action:
    1. **Energy supply**
    2. **Energy demand of buildings**
    3. **Urban development & mobility**
    4. **Land use of open spaces & natural environment**
    5. **Consumer attitudes, life styles & health**
- Restrictions and conflicts
- Aims and guidelines
- Implementation strategies
- Model projects

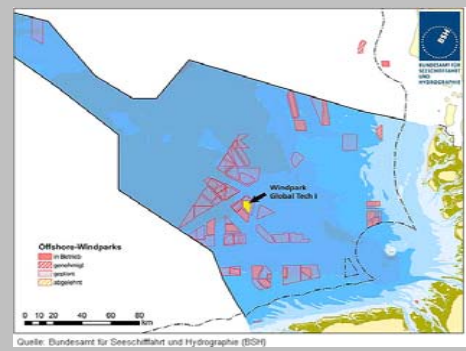
Integrated action program on climate protection 2010

Aims for CO2 reduction till 2030:

- Reduction of carbon **every five years by 10%**
- Reduction by **50% till 2030** (since 1990)
- Carbon emission per capita 2030: **3,2 tons**

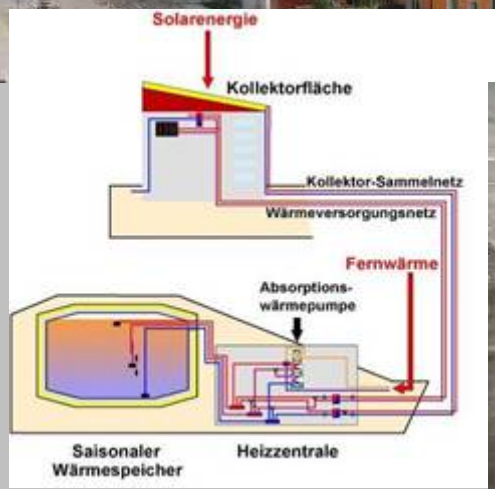


Stadtwerke München (municipal utilities company) aims to produce by **2025** enough electricity from **renewable energy** sources to cover **100%** of Munich's demands.



Ackermannbogen

Solar heat storage combined with district heating



POLIS-Project (EU funded by Intelligent Energy Europe IEE)

Action Plan for Solar Urban Planning

- *Partner cities:* Vitoria-Gasteiz, Lisbon, Lyon, Malmö, Paris, Munich
- *Aims by 2030:*
  7% share of electricity consumption with solar photovoltaic energy
  3% share of total heat demand through solar thermic heat.
- Preparation of a *POLIS-SOLAR Guidebook* for solar urban planning.
- Test of the *POLIS-SOLAR Guidebook* in a pilot project.

1. Europe - a Continent of Cities
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5. **Lessons learnt**

Lessons learnt

1. The spatial and social transformation of metropolitan regions and cities in Europe face new challenges: globalisation, climate change, social and demographic changes, new forms of governance etc.
2. All over Europe we witness a process of re-urbanisation on the one hand and a shrinking population in peripheral regions on the other. Strategies for territorial cohesion are needed on the European, national and regional level to guarantee adequate accessibility and services also outside cities and metropolitan regions.
3. For a sustainable territorial development, cities and metropolitan regions (networks of cities) are not a problem, but part of the solution. The compact, walkable/cyclable, mixed and socially inclusive "European City" is the best model for sustainable territorial development.
4. The metropolitan and urban renaissance gives the opportunity for "smart growth" with high energy efficiency, less car traffic and pollution and without sprawl.

Lessons learnt

5. To be climate proof and liveable, compact and dense metropolitan regions and cities need a backbone of green open spaces:
   On the regional level cultural landscapes and landscape parks as habitats, for leisure, for renewable energies and not at least for near-to-market agricultural production; on the urban level green belts and corridors, interconnected parks and pocket parks, green walls and roofs.
6. The classical tools of spatial planning, sector policies and hierarchical decisions are not longer suitable for meeting the future needs of sustainable territorial transformation. We need comprehensive, integrated strategies and cooperative, communicative planning processes.
7. Strategies for a sustainable territorial and urban development will not be successful without sustainable lifestyles and low carbon consume patterns of people.

Thank you for your attention!