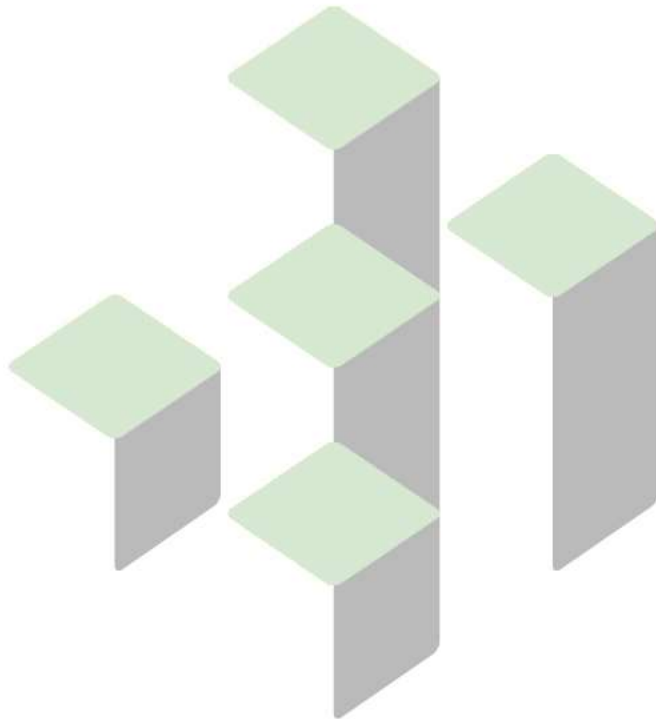


# C02 Reduction and Transport Planning in a City-Region Context

Workshop „SMART CITY MOBILITY IN NORWAY AND THE CZECH REPUBLIC“

28th November 2017 Plzeň



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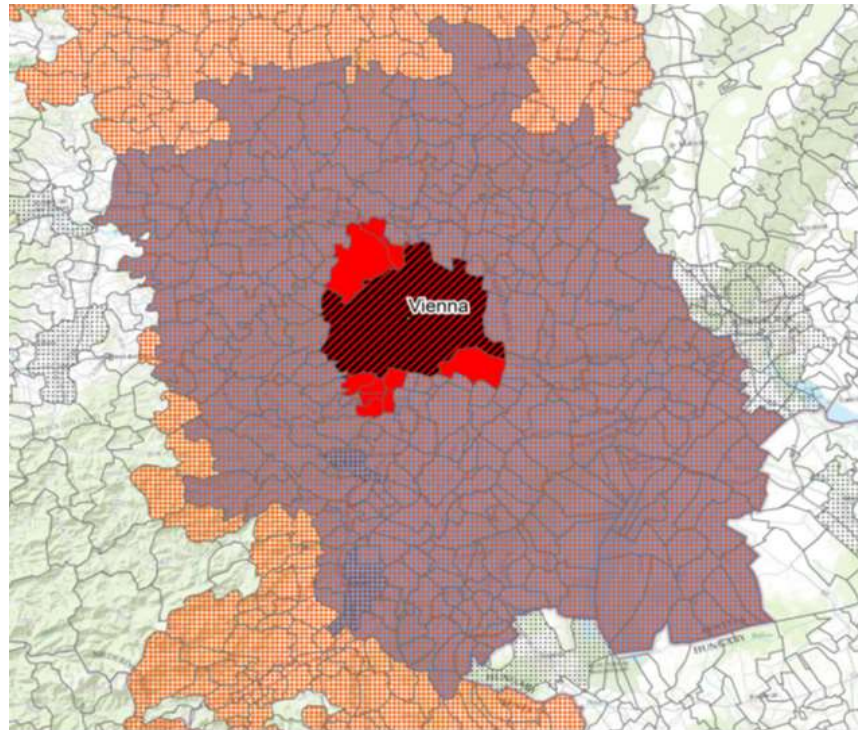
Twitter: [@JornHolmHansen](https://twitter.com/JornHolmHansen)

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# Metropolitan area



## Legend

- Municipality (LAU2)
- Core city municipality
- MUA of the core city (ESPON2013 Database)
- Other MUA (ESPON2013 Database)
- FUA of the core city (ESPON2013 Database)
- Metropolitan Development Area (MDA)

0 5 10 20 Kilometers

- Reduce urban sprawl and suburbanization
- Reduce energy-use in buildings
- **Adapted to climate change**

Densification  
(inward development)

- Protect nature, agricultural landscape
- Recreation
- Biodiversity

Clear demarcation  
between urban  
areas and  
surrounding  
landscape  
areas

Mix of  
functions:  
Services, trade,  
workplaces,  
dwelling and  
culture

Green  
mobility and  
strengthen  
public  
transport hubs

- Mixed population
- Livability
- 10-minute-city

Increase the use of  
public transport, bikes,  
walks

- Reduce CO2 and NOX emissions
- Reduce commuting

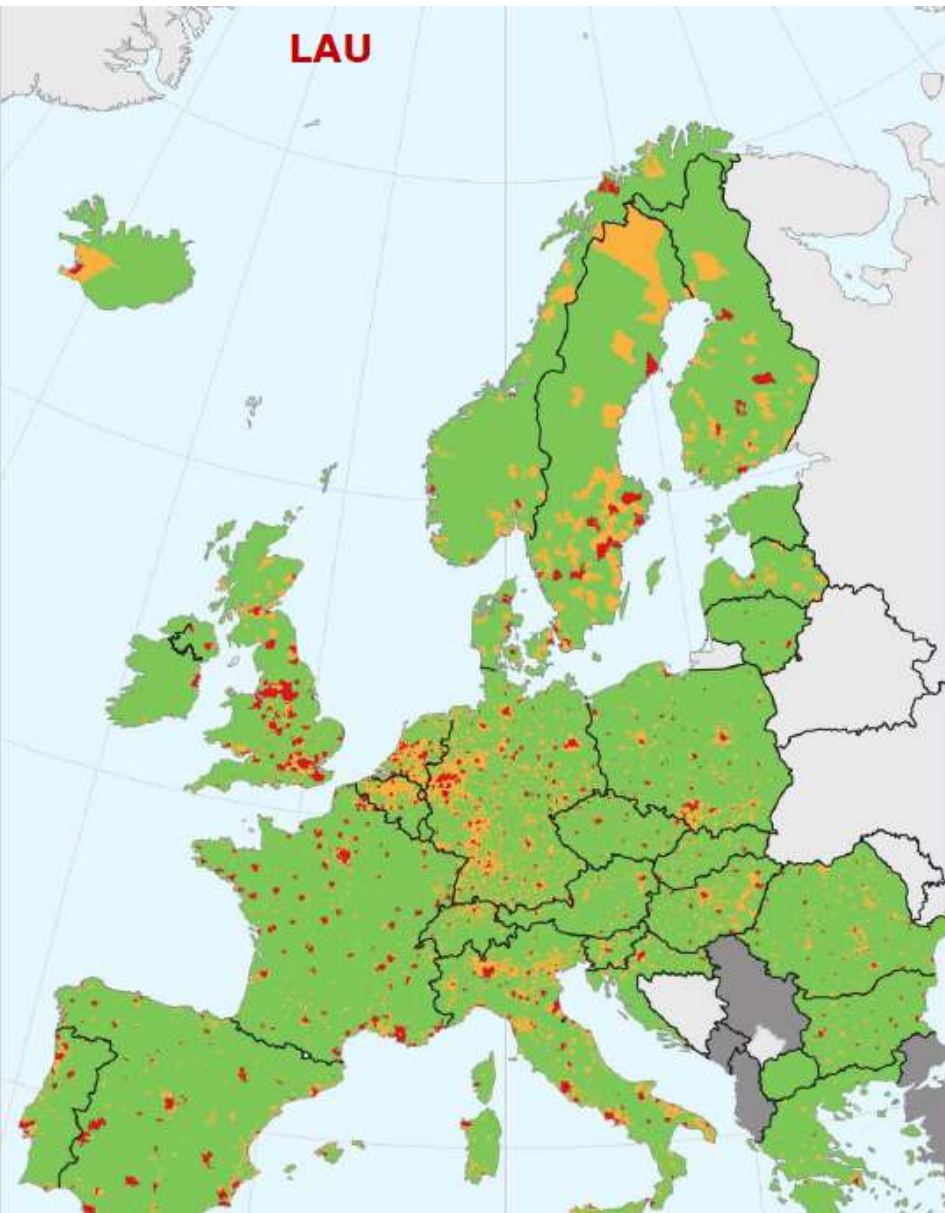
# Two core questions

- ❑ How are the metropolitan areas defined (criteria: administrative, morphological, functional)?
- ❑ What are the multi-level governance arrangements (levels: national, regional, local)?

# CHALLENGES: BORDERS THAT HINDER COORDINATION AND COMPREHENSIVE PLANNING

# 1. GEOGRAFICAL BORDERS – MISMATCH

**LAU**



**FUA**



# Urban growth

- Growth
  - Population and business
  - Urban sprawl and urbanization
  - Increased emmissions of CO2
  - Pressures on agricultural landscape, nature and biodiversity



# Urban growth

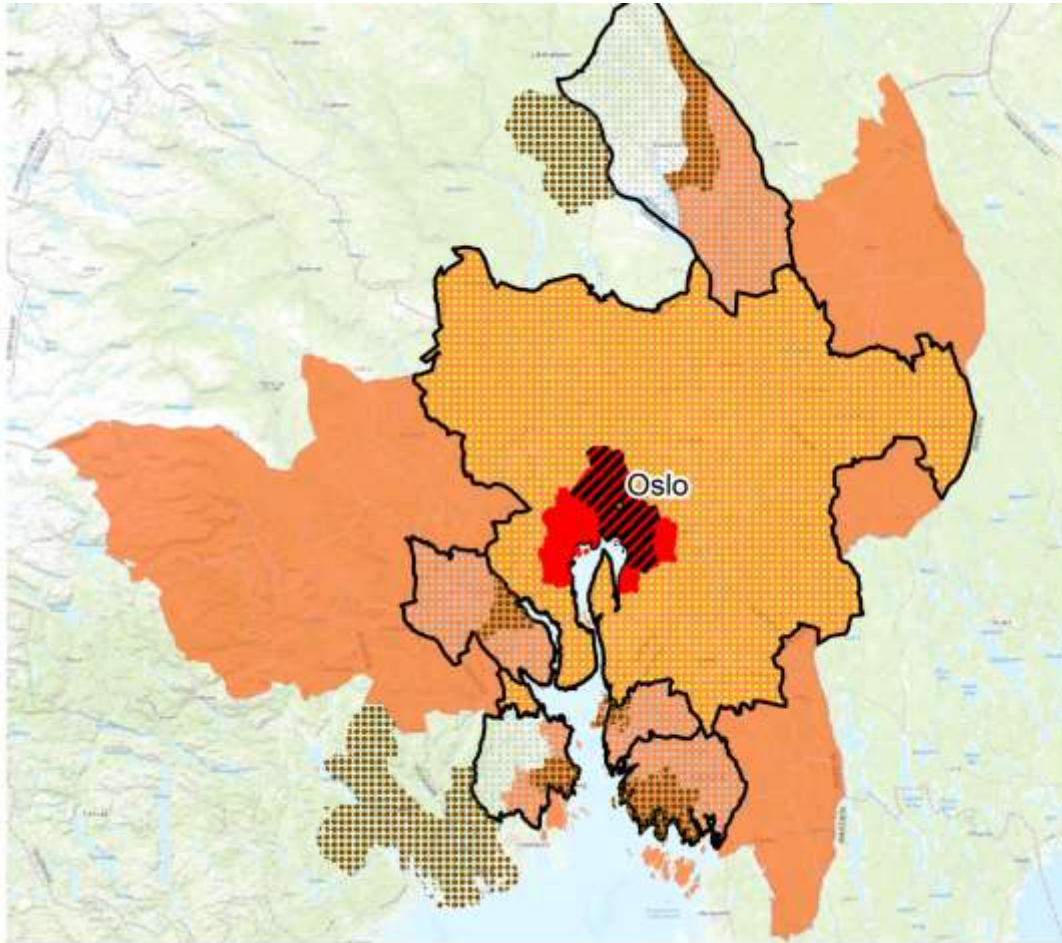


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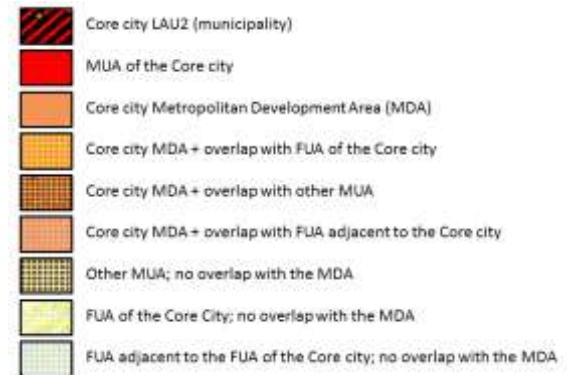
# Mismatch

- Cities are the centres of larger functional metropolitan areas
- Mismatch between:
  - Local Administrative Units (LAU)
  - Morphological Urban Areas, agglomerations (MUA)
  - Functional Urban Areas (FUA)

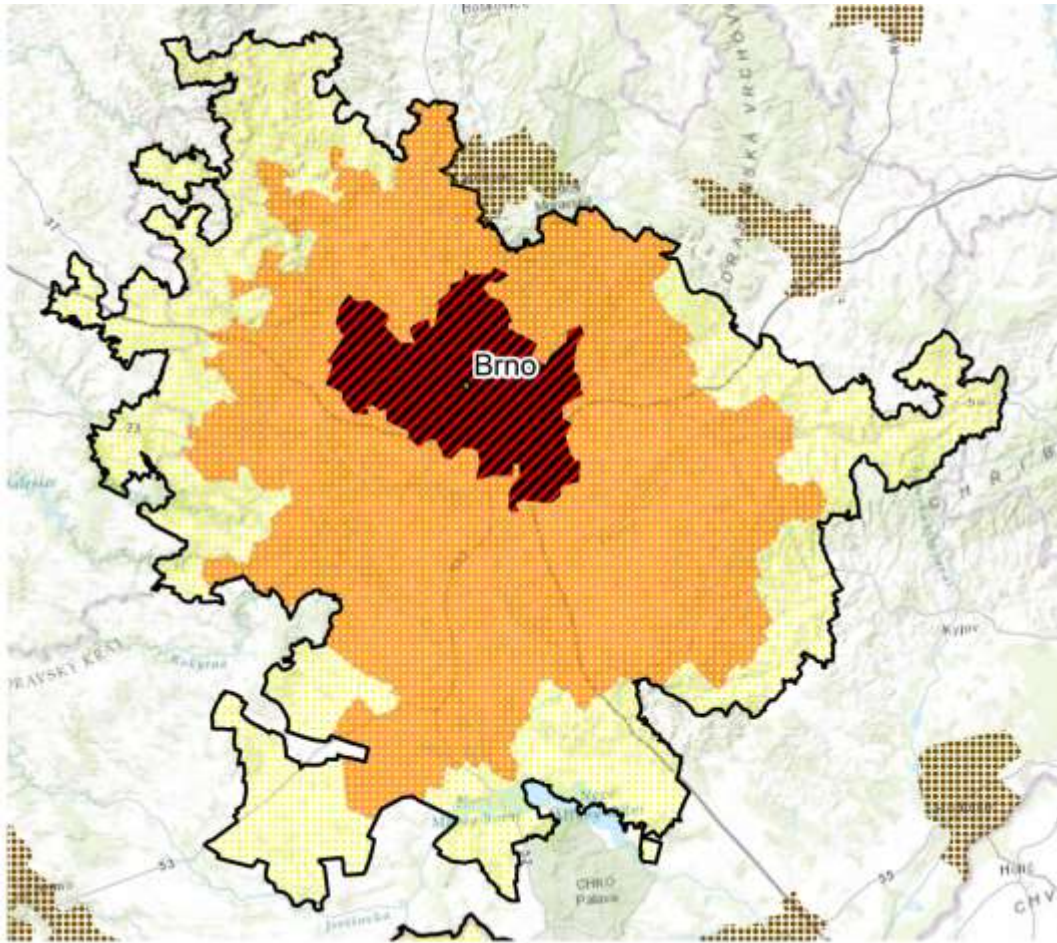
# Oslo












Core city (LAU): 666 759  
Agglomeration (MUA): 975 744  
Functional area (FUA): 1,55 mill



# Brno



Core city (LAU): 385,000  
Functional area (FUA): 600,000

-  Core city LAU2 (municipality)
-  MUA of the Core city
-  Core city Metropolitan Development Area (MDA)
-  Core city MDA + overlap with FUA of the Core city
-  Core city MDA + overlap with other MUA
-  Core city MDA + overlap with FUA adjacent to the Core city
-  Other MUA; no overlap with the MDA
-  FUA of the Core City; no overlap with the MDA
-  FUA adjacent to the FUA of the Core city; no overlap with the MDA

# The mismatch

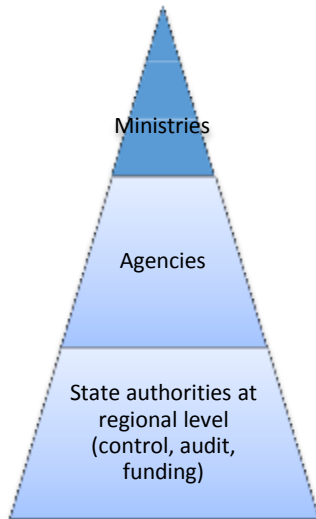
Often the  
planning  
unit

- Local Administrative Units (LAU) **SMALL**
- Morphological Urban Areas (MUA) **LARGER**
- Functional Urban Areas (FUA) **LARGEST**

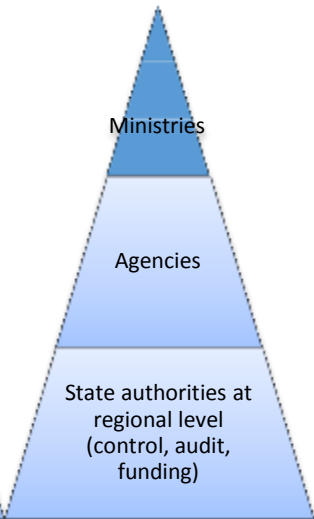
→ Lack of comprehensive metropolitan and inter-regional planning

## 2. «BORDERS» BETWEEN POLICY SECTORS

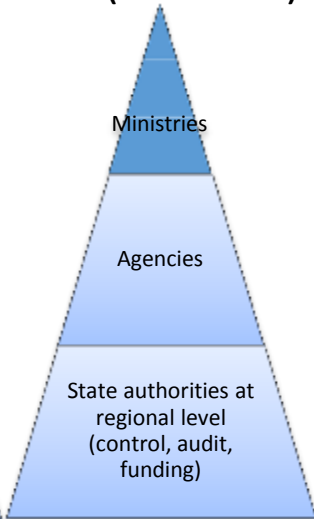
## Health



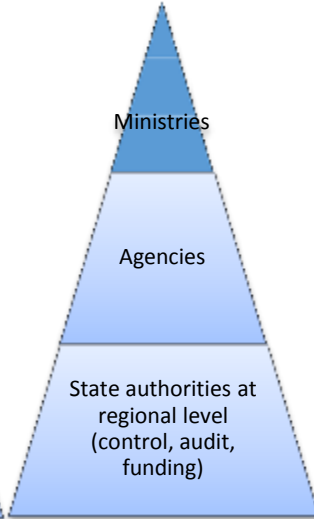
## Infrastructure, traffic



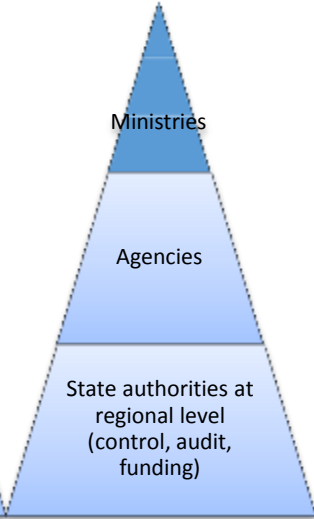
## Planning (land-use)



## Social issues

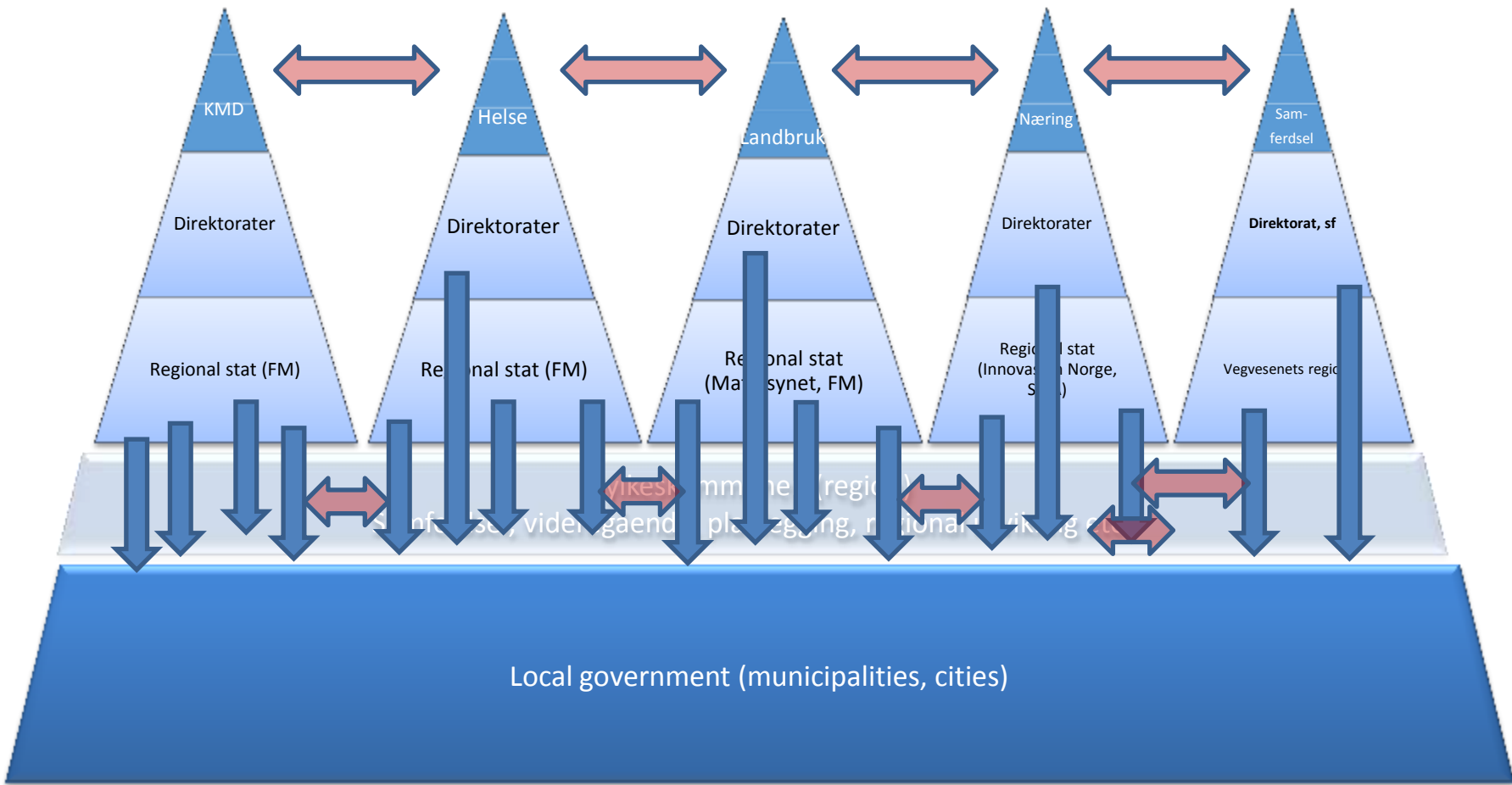


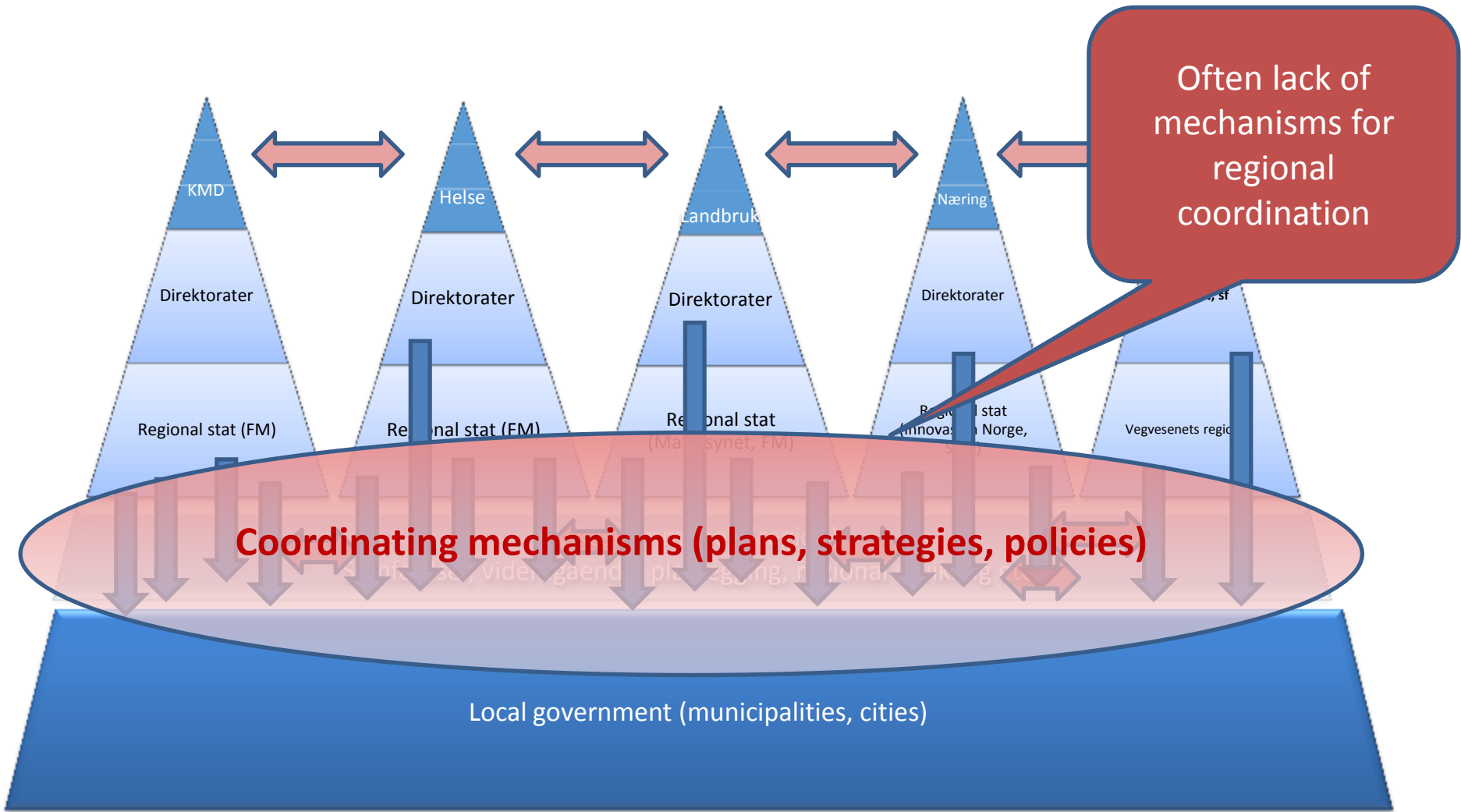
## Justice and public security



Regions (Cantons, regions, counties)

Local government (municipalities, cities)







**SOLUTIONS: WHICH FACTORS SEEM TO STIMULATE  
COMPREHENSIVE METROPOLITAN PLANNING?**

# 1. INTER-REGIONAL COOPERATION

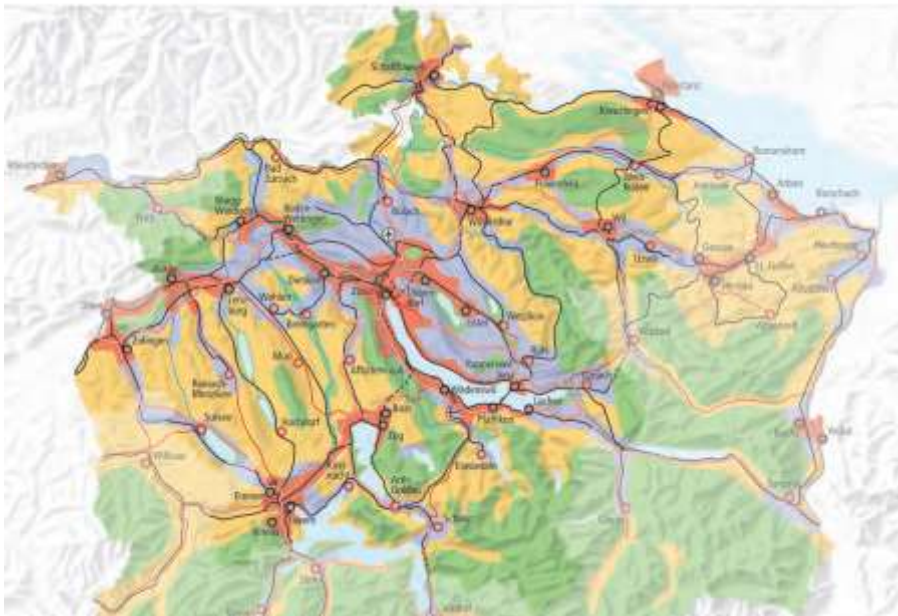
- Informal cooperation, becoming formal associations

# 1. INTER-REGIONAL COOPERATION

- ❑ Informal cooperation, becoming formal associations
- ❑ Development of joint strategic plans (visions, not juridically binding)
- ❑ Collaborative planning (strengthening planning tools)

# 1. INTER-REGIONAL COOPERATION

- Informal cooperations, becoming formal associations
- Development of joint strategic plans (visions, not juridical binding)
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“Raumordnungs-konzept für die Kantone im Metropolitanraum Zürich” (2015)



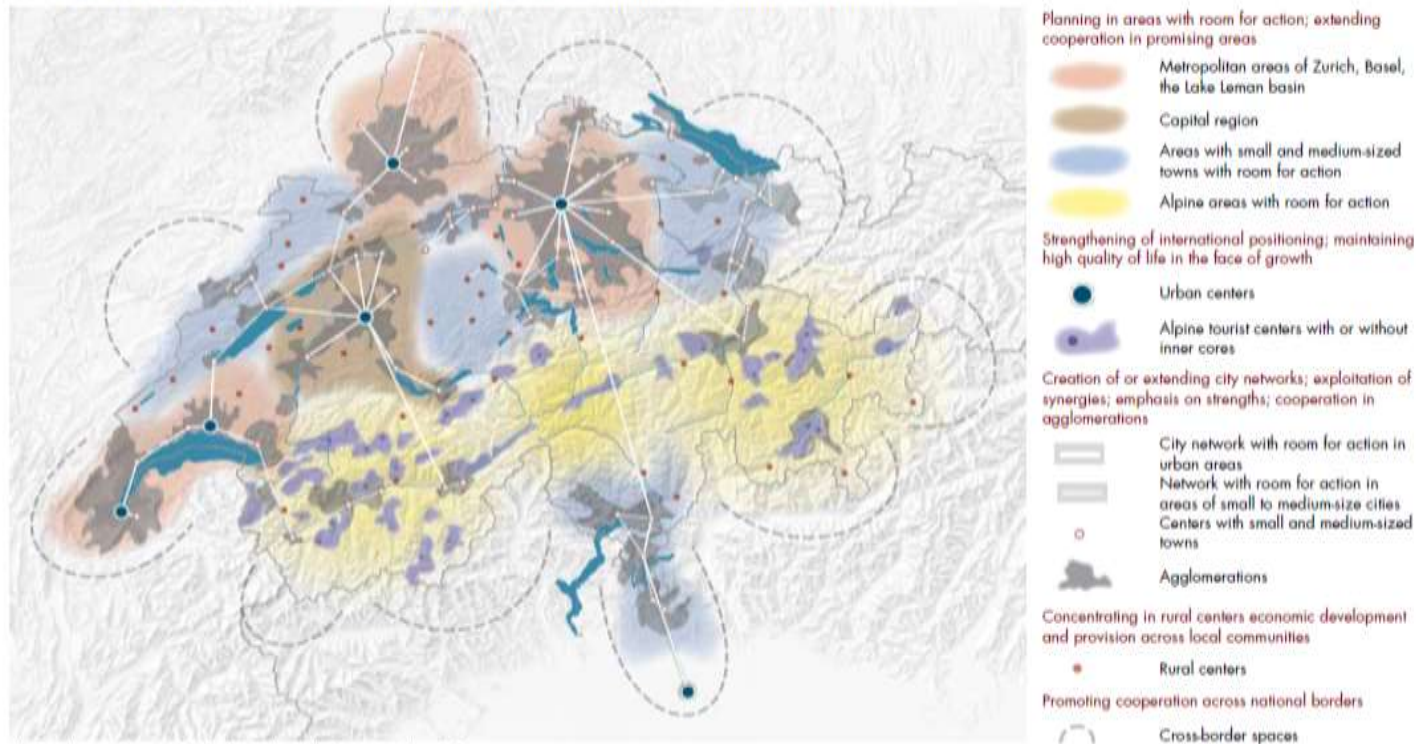
The regional plan for land-use and transport in Oslo and Akershus

# 2. A NATIONAL POLICY OF INTER-REGIONAL PLANNING

- ❑ Defining the metropolitan areas (FUA)
- ❑ Mandatory cooperation

## Switzerland's spatial concept (urban and rural planning)

Polycentric spatial development helps retain competitiveness while promoting cooperation and partnership.



# Smart spatial planning

Thank you for your attention!

Twitter @JornHolmHansen




# 3. LONG TRADITIONS FOR COOPERATION

- Existing cooperation culture:
  - Transport (S-bahn, trains)
  - Land-use cooperation
  - Cultural cooperation
- Then the cooperation can «mature» to adress more complex problems:
  - Climate change mitigation
  - Climate change adaptation



## 4. POLITICAL SUPPORT

- Ensure political ownership of metropolitan and inter-regional strategies and plans
  - Inform elected leadership
  - Involve the elected leadership in strategic work
  - «Empower» mayors and councillors so they can «sell in» the principles in the plans to inhabitants
  - Plans and strategies related to climate change (mitigation, adaptation) often imply densification, car-use restriction and other unpopular measures



Planners have a key role in enabling political ownership – being important «translators»

# CHALLENGES: BORDERS THAT HINDER COORDINATION AND COMPREHENSIVE PLANNING

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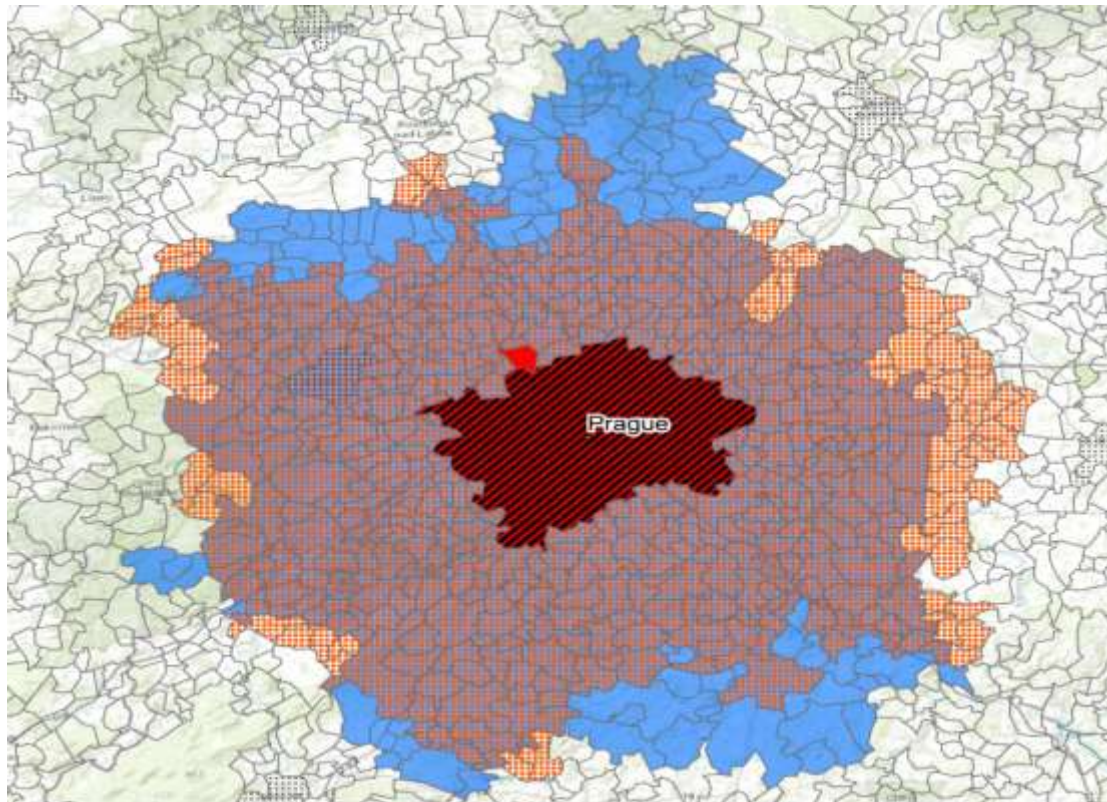
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


# Brno



# Prague



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