METROPOLITAN GOVERNANCE and integrated urban transport

The Governance of Metropolitan Transport – VREF Seminar
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METROPOLITAN FOOTPRINT: TOKYO

Data from "Global Urban Footprint" (GUF) project of German Space Agency Earth Observation Centre - worldwide mapping of settlements with unprecedented spatial resolution of 12 m cells
METROPOLITAN DISCONNECTIONS: TOKYO
The political city and the distribution of populations across metropolitan regions

Source: LSE Cities 2014
CITIES’ FUNCTIONAL VS POLITICAL AREAS
Comparing populations of the political city (red) and the metropolitan region (grey)
ADMIN BOUNDARIES, AGGLOMERATION AND FUNCTIONAL URBAN AREA
TOWARDS A STANDARDISED WAY OF MEASURING METROPOLITAN AREAS

Figure 1. Procedure to define Functional urban areas in OECD countries

1. Apply a threshold to identify densely inhabited grid cells
   - For Japan, Korea, Chile, Mexico:
     - 21,500 inhabitants per km²
   - For US, Canada, China:
     - 21,000 inhabitants per km²
   - For Canada, United States:
     - 240,000 inhabitants

2. Identify contiguous high-density urban clusters
   - For US, Canada, China:
     - ≥ 100,000 inhabitants
   - For Japan, Korea, Mexico:
     - ≥ 250,000 inhabitants

3. Identify core municipalities
   - If 50% of the population of the municipality lives within the high-density urban cluster

STEP 2: Connecting non-contiguous cores belonging to the same functional area
- If more than 15% of the residential population of one core commutes to work in another core

STEP 3: Identifying the urban hinterlands
- If more than 15% of the residential population works in the core area

RESULTS
- Monocentric functional urban areas
- Polycentric functional urban areas

AUSTRIA

Commuting zone
City core
REINFORCE METROPOLITAN GOVERNANCE

• “We will promote metropolitan governance that is inclusive and encompasses legal frameworks and reliable financing mechanisms, including sustainable debt management, as applicable” [Para 90]

• “We will encourage implementing sustainable urban and territorial planning, including city-region and metropolitan plans [Para 96]
METROPOLITAN GOVERNANCE MODELS

Source: UCLG/OECD 2016

1. Special status of metropolitan cities with broader competences
2. Inter-municipal and multi-purpose authorities
3. Elected or non-elected metropolitan supra-municipal structure
4. Soft, informal coordination in a polycentric system
COPENHAGEN FINGER PLAN

Population Density along Major Transit Routes in Copenhagen

Legend:
- Rail & Metro Network
- Density at station
- Residential
- Jobs
- Rail/Metro Station
- Rail Line
- Peak Station Density
- Jobs/Residence

Cartography by DA Smith, LSE Cities
### Who is Leading Urban Policy Sectors?

#### Level of Influence of Different Tiers of Government

<table>
<thead>
<tr>
<th>Policy Sector</th>
<th>Below City</th>
<th>City</th>
<th>Metropolitan</th>
<th>State</th>
<th>National</th>
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</table>
STRATEGIC PLANNING CONTENT

Source: Siemens 2015

Buildings
Transport
Environment
Economy
Quality of Life
Water and Waste
STRATEGIC PLANNING CONTENT
Source: Siemens 2015

- Buildings: 54%
- Transport: 82%
- Environment: 69%
- Economy: 87%
- Quality of Life: 67%
- Water and Waste: 31%
POLICY CAPACITY: SECTORAL INTEGRATION

City Design

Urban Planning

Transport Policy
**FORMS OF INTEGRATION**

Source: Rode 2018

**System integration**
- technical artefacts
- infrastructure systems
- socio-spatial city structures

**Target integration**
- New policy targets, e.g. environmental sustainability or social equity

**Governance integration**
- Vertical integration
- Horizontal integration
KEY INTEGRATION CHALLENGES

- transition ‘from government to governance’ (Rhodes 1997, Stoker 1998, Heere 2004, Blumenthal and Bröchler 2006): deregulation, increased flexibility of planning and the greater involvement of the private sector (Greiving and Kemper 1999); increasing plurality (Röber and Schröter 2002, Evans et al. 2006); expanding the number and diversity of actors involved in an increasingly nonlinear policy-making process (Greiving and Kemper 1999); privatisation of urban services and infrastructure delivery (Thornley 1996, Cowell and Martin 2003, Harvey 2005, 2007); shift towards new public management (OECD 2004, Dunleavy et al. 2006, Catney et al. 2008)

- difficulty of cutting across temporal and spatial scales: political impatience (Perri 6 et al. 2002) including as a result of electoral cycles and short-term hyperactivism; challenge of bridging geographic scales as a result of urban expansion (Shaw and Sykes 2005)

- the legacy of decades of fragmentation and isolation of planning practice: division of labour in modern organisations; institutional path dependency (Steiner 1997, Steer Davies Gleave 2002, Page 2005, Dunleavy et al. 2006); professional capture (6 et al. 2002); institutional inertia, conflicting interests (Dimitriou and Thompson 2001); professional culture and capacity (Klein 1990, Geerlings and Stead 2003, Sennett 2012).
CASE STUDY CITIES: BERLIN AND LONDON DENSITY

Red: Berlin administrative territory  Grey: Areas outside Berlin

people per km²

<1,000  1,000 - <2,000  2,000 - <5,000  5,000 - <10,000  10,000 - <20,000

Red: Greater London administrative territory  Grey: Areas outside London

people per km²

<1,000  1,000 - <2,000  2,000 - <5,000  5,000 - <10,000  10,000 - <20,000
BERLIN AND LONDON RAIL NETWORKS
BERLIN AND LONDON PUBLIC TRANSPORT UPGRADE SINCE 1990
BERLIN AND LONDON GOVERNANCE GEOGRAPHY

LAND BERLIN with 12 boroughs
BERLIN METROPOLITAN REGION

GREATER LONDON with 23 boroughs
LONDON METROPOLITAN REGION

Schwerin
Mecklenburg-Vorpommern
Prenzlau
Templin
Schwedt/Oder
Frankfurt/Oder

Brandenburg
Potsdam

Birmingham
Northampton
Reading
Oxford
Southampton
Portsmouth
Brighton

Sachsen-Anhalt
Magdeburg
Salzwedel
Brandenburg

East of England
Cambridge
Ipswich
Colchester
Canterbury

Sachsen
Leipzig
Halle (Saale)

0 20 40 60 80 km
0 20 40 60 80 km

km
01 FEDERAL PLANNING FRAMEWORK
Area: 157,000 sqkm
Scale: no scaled plan at this level
At the federal level, Germany does not have an overall, central spatial plan but produces guidelines, principles and goals of spatial planning. Important components include the Federal Spatial Planning Act, Guidelines for Regional Planning, the Federal Building Code, the Federal Land Utilisation Ordinance, and Spatial Planning Policy Guidelines.

02 JOINT SPATIAL DEVELOPMENT PLAN (LEP)
Area: 3,370 sqkm
Scale: 1:100,000
Based on unique joint state planning agreement between Berlin and Brandenburg. Defines general goals for spatial development with regards to: (1) general spatial structure, hierarchy of towns and cities, overarching infrastructure (incl. transport); (2) potential areas for development and open space; (3) protected open space and ecological zones; (4) development centres and special development areas for the improvement of quality of life.

03 BERLIN LAND USE PLAN (FNP)
Area: 890 sqkm
Scale: 1:25,000
With its status as city state and municipality, Berlin combines regional and municipal planning at the level for the entire city. Berlin’s Land Use Plan is an outline development plan with general land use (zoning) categories (as planning objectives). It is a non site-specific plan with a resolution targeting areas larger than 3ha. Its principal contents include: (1) delimitation of (future) built-up areas and open spaces; (2) density categories for residential building land; (3) type and location of mixed use and commercial/industrial building land; (4) location of community facilities and public utilities of more than local importance; (5) important transport corridors and (6) open space (green areas, forest, agricultural land).

04 URBAN DEVELOPMENT PLANS (SSEP)
Sectoral urban development plans (SSEP) support the Land Use Plan and are designed for the whole city of Berlin. They include directives and objectives for different functions such as work, living, social infrastructure, transport, and waste disposal. They are the “basis for all future planning” and solidify the Land Use Plan by defining spatial and temporal priorities and pointing out the necessary measures to be taken.

04 UDP TRANSPORT (SSEP Verkehr)
Area: 890 sqkm
Scale: 1:25,000

01 NATIONAL GUIDANCE
UK Area: 245,000 sqkm
England Area: 136,000 sqkm
Scale: no scaled plan at this level
The English planning system gives central government a key role in spatial planning. Its Department for Communities and Local Government establishes guidance to local authorities and initiates programmes to achieve sustainable communities and urban regeneration. A spatial plan for all of England does not exist and the top-hierarchy of plans is assigned to the regional level.

02 THE LONDON PLAN
Area: 1,570 sqkm
Scale: no scaled plan at this level
The London Plan is:
1. required by law through the Greater London Authority Act 1999
2. prepared by the Greater London Authority under the Mayor of London
3. a statutory mayoral strategy mandatory for the GLA family
4. and acts as guidance for borough-level planning, as such not legally binding.

03 THE MAYOR’S TRANSPORT STRATEGY
Area: 1,570 sqkm
Scale: no scaled plan at this level
While the London Plan is the Mayor's central citywide plan, there are other statutory mayoral strategies. The London Plan is the integrating framework for all others. Of particular importance for the integration of land use and transport is the Mayor's Transport Strategy, which was published in 2001 and 2010 – on each occasion prior to the London Plan.

04 LOCAL DEVELOPMENT FRAMEWORK
PLANNING SCALES

German Planning System
Source: Blotevogel 2014
REGионаl DEVELOPMent PLAN BERLIN-BRANDENBURG, 2004

1. General spatial structure, hierarchy of towns and cities, infrastructure
2. Potential areas for development and open space
3. Protected open space and ecological zones
4. Development centres and areas for the improvement of quality of life
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<thead>
<tr>
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<tr>
<td>2. Construction and Housing</td>
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<td>3. Urban Development and Environment</td>
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<td>- Federal and European Affairs</td>
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</table>

Source: expanded based on Nissen (2002)
“cross-cutting project management and leadership is now the new buzz word.”
SenStadtUm Official
LONDON METRO REGION BOUNDARIES

Greater South East
South East
Metropolitan Area
Greater London
Inner London

Source: based on Hall (1989)
GOVERNING LONDON TRANSPORT
up to 2000

Source: Busetti (2015) adapted from Travers and Jones (1997)
GOVERNING LONDON TRANSPORT
2013

“TfL is a mighty machine,”
Ken Livingstone, Mayor of London 2000-2008

Source: own representation based on TfL (2013)
## FOUR INTEGRATION MECHANISMS

**Source:** Rode 2018

<table>
<thead>
<tr>
<th>Governance Systems</th>
<th>Support Systems</th>
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<td><strong>STRUCTURES</strong></td>
<td><strong>INSTRUMENTS</strong></td>
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<td>- system boundaries as administrative boundaries</td>
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<tr>
<td>- central node single leadership</td>
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<td>- networks of trust and mutual interest</td>
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<td>- information and communication technology</td>
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<td>- strategic visions and integrated plans</td>
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<tr>
<td>- multi-criteria assessments and resource distribution</td>
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<thead>
<tr>
<th><strong>PROCESSES</strong></th>
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<tbody>
<tr>
<td>- management of interrelated tasks and milestones</td>
</tr>
<tr>
<td>- incorporation of broader sectoral perspectives</td>
</tr>
<tr>
<td>- collaboration of key stakeholders</td>
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</tbody>
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<tr>
<th><strong>ENABLING</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- capacities of individuals, groups and civil society</td>
</tr>
<tr>
<td>- leadership and quality of senior officials</td>
</tr>
<tr>
<td>- knowledge, experience and collaborative culture</td>
</tr>
</tbody>
</table>
THE URBAN/METRO NEXUS
Source: Rode 2018

- Cities are geographic units with corresponding system boundaries, i.e., they are not just based on historic and often arbitrary demarcations.

- This in turn opens up opportunities of integrating systems and policy sectors that are similarly bounded - land use and transport or social inclusion and urban design.

- Cities allow their governments to be better connected with the lives on the ground exposing the political leadership to daily routines of citizens.