Cities and Functional Areas
Scales, Spill-overs, Strategies

Dr Tim Moonen
UCL/The Business of Cities
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The urban landscape of Europe is characterised by a large diversity of small, medium-sized and large cities. Compared to other parts of the world, many urban regions in Europe have a polycentric structure where multiple towns and cities are in close proximity to one another. In other cases, a single large city – typically a nation’s capital – dominates its surrounding region, resulting in a more monocentric pattern. In a few regions, a linear urbanisation pattern can be discerned, such as in areas bordering the Mediterranean Sea and Italy’s Adriatic coast.

Europe’s urban structure is the result of many underlying factors. Some elements date back to the Roman Empire, where they functioned as administrative centres. Other towns and cities developed during the Middle Ages as regional marketplaces at strategic locations along trade routes, often close to a river or harbour. As a result of political, demographic and economic developments, towns and cities flourished (and therefore expanded) in some periods, whereas other periods were characterised by decline (Benevolo, 1995; Rutte and Abrahamse, 2016). Over the course of the 20th century, cities spilled over into their surrounding regions. Several countries built so-called new towns. Milton Keynes in the United Kingdom, Almere in the Netherlands and Nowa Huta in Poland are examples of these. This injected new and highly planned urban and suburban centres into the historical European urban structure.

Looking back, Europe’s urban landscape is clearly not a static phenomenon. Even today, some towns and cities grow, while others shrink. Currently, there are over 800 cities with more than 50,000 inhabitants in the European Union. The majority of these, almost 700, are small and medium-sized cities (between 50,000 and 250,000 inhabitants).

### Table: Population density 2014

<table>
<thead>
<tr>
<th>City</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lisbon</td>
<td>529,000</td>
</tr>
<tr>
<td>Madrid</td>
<td>1,409,000</td>
</tr>
<tr>
<td>Paris</td>
<td>1,857,000</td>
</tr>
<tr>
<td>London</td>
<td>1,094,000</td>
</tr>
<tr>
<td>Berlin</td>
<td>817,000</td>
</tr>
<tr>
<td>Athens</td>
<td>1,247,000</td>
</tr>
<tr>
<td>Warsaw</td>
<td>644,000</td>
</tr>
<tr>
<td>Bucharest</td>
<td>915,000</td>
</tr>
<tr>
<td>Rome</td>
<td>707,000</td>
</tr>
<tr>
<td>Budapest</td>
<td>557,000</td>
</tr>
<tr>
<td>Milan</td>
<td>728,000</td>
</tr>
</tbody>
</table>
Why Functional Areas have grown as an imperative for cities

- Economy does not respect borders, and moves faster than policy
- Territories have specific identities, assets and needs
- Increased clustering effects
- Prevailing political fragmentation and inertia

= Big implications for
  - Productivity
  - Urban-rural relations
  - Cultural heritage and identity
  - New forms of exclusion and deprivation
  - How natural assets are managed
Functional Areas: Key Debates

- What really are functional areas? Are they changing?
- Do they contribute to or erode territorial cohesion? Why?
- What is the relationship between organising around the functional scale and economic/social outcomes?
- Can declining areas benefit from policy to support functional areas?
- How do spill-overs really happen?
What makes an area functionally integrated?

<table>
<thead>
<tr>
<th>firms</th>
<th>people</th>
<th>connections</th>
</tr>
</thead>
<tbody>
<tr>
<td>output</td>
<td>population</td>
<td>industry flows</td>
</tr>
<tr>
<td>production</td>
<td>spatial patterns of growth,</td>
<td>flows of inputs and outputs</td>
</tr>
<tr>
<td>specialisation</td>
<td>trends and forecasts</td>
<td>between and within industries</td>
</tr>
<tr>
<td>economic locations</td>
<td>human capital</td>
<td>regional flows</td>
</tr>
<tr>
<td>the evolving location and role of economic clusters</td>
<td>growth, investments and the shifting distribution</td>
<td>flows between and within sub-regions of the FER</td>
</tr>
<tr>
<td>job outlook</td>
<td>labour force</td>
<td>freight flows</td>
</tr>
<tr>
<td>where the new jobs will go and their industries</td>
<td>participation, unemployment and underutilisation</td>
<td>how firms move goods around</td>
</tr>
<tr>
<td>industry trends</td>
<td>access</td>
<td>commuter flows</td>
</tr>
<tr>
<td>automation and the changing nature of work</td>
<td>access to job opportunities and other factors</td>
<td>where workers go to and come from</td>
</tr>
</tbody>
</table>

Source: SGS (2019)
In a Europe whose cities are smaller on a global stage, and in regions that are growing fast or shrinking,

**Functional Areas can Provide**

- Scale
- Productivity
- Visibility
- Diversity
- Coherence
- Cohesion

But only if they are well organised
In a Europe whose cities are smaller on a global stage, and in regions that are growing fast or shrinking,

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Or the risks are:

- Fragmentation and disparities
- Lack of critical mass
- Co-ordination and Capacity problems
- Wasteful internal competition
- Incoherent messages
Planning for functional areas is often trumped by:

- Politics
- Fiscal systems
- Regulation
- Transport investment
- Land-use deals
- Incentives
- The preferences of capital
- Slow processes.
Functional integration is happening at many different scales

▪ The Mega-regions

▪ The Multi City Region

▪ The Metropolis
Functional integration is happening at many different scales

- The Mega-regions
- The Multi City Region
- The Metropolis
Functional integration is happening at many different scales

- The Mega-regions
- The Multi City Region
- The Metropolis

[Map of Sydney and Nairobi showing functional integration]
Functional integration is happening at many different scales

- The Mega-regions
- The Multi City Region
- The Metropolis

Plus networks of secondary cities, corridors, and rural areas
Many models

Source: Author

Source: Cities Alliance

Competitive network of trading secondary cities

Source: Roberts, 2014
The conundra of measuring functional areas

- Data gaps (for measuring commuting)
- Biases of estimated relationships (Satellite imagery + Gridded population data)
- Variable impacts of evolving technologies
- Changing economic, cultural and social relationships, flows, interdependencies
a. Administrative boundaries

b. High-density population cluster

c. Brightly-lit urban area

d. Strength of commuting flows
Opportunities for confusion and ambiguity

The challenges of charting regional inequality

There is no perfect measure, but context is everything

Regional inequality

GDP per person of richest region in each country indexed against the country’s average GDP per person in 2015 (2014 data for Japan)

* For the UK, Greater London has been used as the richest region comparator, rather than any subdivision of London. US data is only held for states and Washington DC.

This graph illustrates the problem with comparing regional GDP between countries. The different sizes of these areas mean this sort of comparison is misleading.

Source: OECD.Stat, Regional Economy, Regional Gross Domestic Product (Large regions TL2 and Small regions TL3), USD per head, current prices current PPP
Plus Digital disruptions

- Technology and New Industries and Firm Disaggregation Patterns
- Transport, Long-Distance Commuting Self Employment
- New kinds of flows (digital, informational, logistical)

http://eprints.whiterose.ac.uk/89361/7/WRRO_89361.pdf
Global approaches to functional areas
Japan
Adapting Functional Areas for a de-populating society

- Compact and networked system of cities
  - Achieve agglomeration while avoiding abandonment
Smaller cities of <500,000 incentives and subsidies to move to designated areas with good transport links

Efficiency
- Optimising new residential development around rail stations
- Demand-responsive transport

Cooperation among nearby cities is essential.
Australia

City Deals for Functional Areas

- Focus on
  - Integrating different ways of working at 3 levels of Gov
  - Rapid Rail
  - Trade and Logistics
  - Innovation Economy
- Shared fund for Blue and Green Infrastructure
- Incentives to Co-ordinate across 5+ Local Govs – communication and decision-making between mayors and general managers.
China

Hard and Soft Infrastructure

19 City Clusters

▪ Soft networks - critical mass to collectively conduct research, pool capital, share risks, and focus on specialised local products
▪ Rise of innovative industries begin to occur.
▪ coordination across local administrative boundaries
▪ productivity & efficiency gains

2nd phase – shift towards culture, identity and ecological preservation

Streamline Regulations, Joint Promotion, Cross-boundary Tourism, MICE Events, Sports, Data Hub for the Region

Lessons learnt

▪ Support polycentric functional development where natural regional markets exist. Forced functionalism has not delivered expected efficiencies.
▪ Governance structures fit best with wider commuting market, and benefits from co-ordination of investment, operations and financing.
▪ Addressing local government incentives to compete and build unproductively

USA

Bottom-up efforts

- Start by Unifying Leaders around Functional Trade and Exports
  - Higher level Support of Export Service Providers
  - Access to export financing
  - Freight networks

- Economic Development and Competitiveness
  - Identifying Real Functional Specialisations

- Shared Business Identity
Germany – Leipzig/Halle

- Platform for more functional cooperation for 7 cities
- Different kinds of intensity of commitment of stakeholders
- Trust and reliability between the partners through joint projects and formalised networking - Working Groups

**Lessons**

- Start with soft boundaries for those who wish to join
- Rely on economic, cultural and social endogenous local potential
- Agree core principles for future
- Catalytic projects, easy to implement, to replicate, build trust + confidence
- Fora for regular communication among functional stakeholders
Everywhere: Concerns about Inequalities and Disparities

- within Functional Areas
  - Social and Spatial Segregation
  - Job Bifurcation

- between Functional Areas
  - Suck-in and push-out effects
  - Priorities and Choices on Complementarity, Skills, Business Climate
Reasons functional areas consolidate and densify around assets

- Re-attract under-40s
- Creativity and culture
- Avoid ‘ghost town’ effect
- Compact sustainability

Capacity
Affordability
Infrastructure stress
Housing demand
Critical mass

Attract investment
Expand sectors
Street life
Efficiency

Time
Population
Around the world there are different focuses for what Functional Areas should (and can) Prioritise

- Growth Management: Transport Land, Housing, Fiscal systems.
- Planning, Institutions, Investment
- Asset Optimisation and Consolidation
- Economic Strategy, international orientation.
- Innovation and Entrepreneurship
- Post-growth Sustainability and Resilience
What are the bottom up efforts that smaller or shrinking functional areas undertake?

### Functional Area

**Governance**

- Largest cities/local Govs agree to partnership meeting and MOU
- Sharing plans, information & areas for collaboration
- Identify and work with Industry clusters, business, civic and government partnerships
- Economic Development Partnership programme or agency

### Functional Area

**Shared Infrastructure and Services**

- Co-located urban services and social facilities
- Shared asset management and maintenance
- Shared platform for accessing public information and services, data sharing
- Specialised and integrated employment zones and collocated logistics
- Natural, cultural assets
- Cost sharing and outlays recovery
- Centres of Excellence, Technical colleges
Why do policies for functional areas fail?

✗ No intention to implement.
✗ Lack of leadership and cross functional-area working
✗ No communication and conviction
✗ Failure to assess local assets and distinctiveness
✗ No assessment of demand side opportunities
✗ No responsibility to deliver amongst competent bodies
✗ Lack of tools to implement at the functional scale
✗ Lack of investment, capacity/resources
✗ Failure to solve problems as they arise
✗ No support from higher tiers of government or neighbours
The Future of Functional Areas
<table>
<thead>
<tr>
<th>Functional Area OFF</th>
<th>Functional Area ON</th>
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<tbody>
<tr>
<td>Co-ordination</td>
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<td>Low coordination</td>
<td>High coordination</td>
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<td>equilibrium;</td>
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<td>presumption that</td>
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<td>processes are 'zero</td>
<td>region.</td>
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<td>sum'</td>
<td>Strong vertical</td>
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<td>Many voices for</td>
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<td>the region.</td>
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<td>Weak vertical</td>
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<td>relationships.</td>
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<td>Integration</td>
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<td>Sectoral policies</td>
<td>Integrated</td>
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<td>lead.</td>
<td>solutions.</td>
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<td>Systems ownership</td>
<td>Enables the pooling</td>
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<td>is fragmented.</td>
<td>of resources.</td>
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<td>No joined-up</td>
<td>Manage wider risks</td>
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<td>approach to</td>
<td>and vulnerabilities.</td>
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<td>resilience.</td>
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<td>Cohesion</td>
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<td>Growing spatial and</td>
<td></td>
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<td>socioeconomic</td>
<td>Combined efforts</td>
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<td>disparities.</td>
<td>to reduce disparities</td>
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<td>Partial sense of</td>
<td>and improve access</td>
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<td>belonging to whole</td>
<td>to opportunity.</td>
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<td>city or region.</td>
<td>Increased civic</td>
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<td></td>
<td>identity and participation.</td>
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<td>Land and development</td>
<td></td>
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<td>patterns</td>
<td>Shared commitment</td>
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<td>Growth management</td>
<td>to accommodate</td>
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<td>decisions are</td>
<td>growth.</td>
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<td>highly</td>
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<tr>
<td>politicised.</td>
<td>High levels of</td>
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<td>Local governments</td>
<td>public-private</td>
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<tr>
<td>have few incentives</td>
<td>collaboration.</td>
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<tr>
<td>to promote growth.</td>
<td>Higher population</td>
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<td>Land assets are</td>
<td>density and lower</td>
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<td>under-utilised.</td>
<td>levels of sprawl.</td>
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<tr>
<td>Financial</td>
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<td>relationships</td>
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<td>Low value capture</td>
<td>Cost sharing, and</td>
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<td>and financial</td>
<td>sometimes cost-</td>
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<td>innovation.</td>
<td>saving.</td>
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<tr>
<td>Unequal tax base.</td>
<td>High value capture.</td>
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<tr>
<td>‘Free rider’</td>
<td>Capacity to</td>
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<tr>
<td>governments.</td>
<td>negotiate collectively for financial devolution.</td>
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</tbody>
</table>
What does it take?
The journey for functional areas

Fundamentals
- Trust and basic coordination
- Begin long-term strategic planning
- Integrated authorities
- National leadership support
- Robust research base and trusted expertise

Execution
- Buy-in fostered by concrete projects and initiatives.
- Cross-border transport
- Investment in sense of place
- Consolidation around New and Existing Centres (guiding retail, deliberate clustering) to increase attachment and competitiveness
- Incentives for more compact development
- Financial solutions and land-use instruments

Momentum
- Institutional adjustment to fit evolution and avoid lock-in
- Diversifying the base of leadership to act as strong advocates, (personalities + institutions)
- National policies and incentives for functional agenda
- Ongoing integration across silos

What does it take?
The journey for functional areas
Thank you

Dr Tim Moonen, University College London/The Business of Cities

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