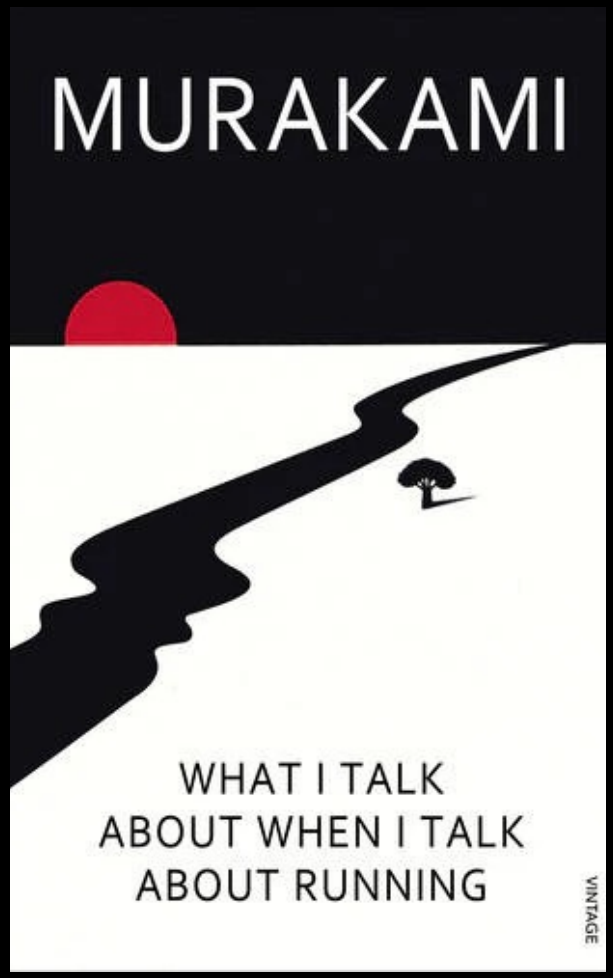
HAL.KAJO.214

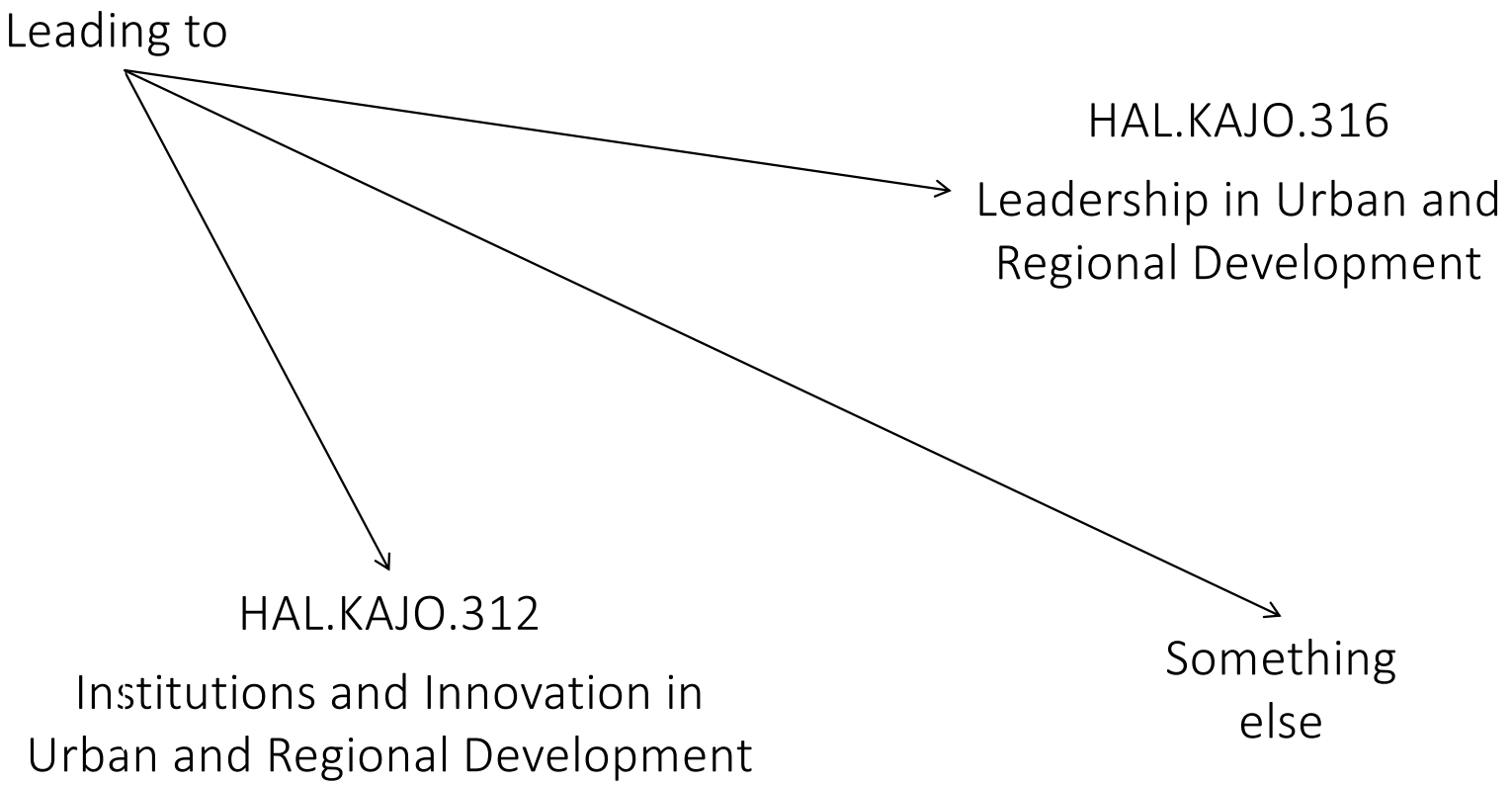
Economic Renewal of Cities and Regions

Markku Sotarauta

Local and Regional Governance
Kunta- ja aluejohtaminen


MURAKAMI
WHAT I TALK
ABOUT WHEN I TALK
ABOUT RUNNING
VINTAGE


What I talk
about when I talk
about regional development


Leading to
HAL.KAJO.316
Leadership in Urban and Regional Development
HAL.KAJO.312
Institutions and Innovation in Urban and Regional Development
Something else

The material can be found here:

- www.sotarauta.info -> teaching -> HAL.KAJO.214
  Economic renewal of cities and regions 5 ECTS
- Please note! Moodle is NOT used

Learning outcomes

The most important knowledge-based theories and development models of cities and regions

- The key forces that shape economic development of cities and regions
- The potential and constraints of the most important economic development models in use
- How institutional varieties shape economic development of cities and regions in different locations
- The nature and thematic areas of innovation oriented local and regional development studies

What

- Six on-campus sessions (recorded and posted on the website)
- Online videos whenever you want
  - Andrés Rodríguez-Pose - The geography of EU discontent (47:59)
  - Andrès Rodriguez-Pose: The revenge of the place in a nutshell, complements the above (5:58)
  - Andy Pike: Shifting Horizons in Local and Regional Development. (20:24)
  - Cluster Dynamics, part 1. March 3, 2010 (9:50)
  - Cluster Dynamics, part 2. March 3, 2010 (9:43)
  - Cluster Policy, part 1. March 3, 2010 (9:49)
  - Cluster Policy, part 2. March 3, 2010 (9:29)

- Two reports to read
  - Beer, A., McKenzie, F., Blažek, J., Sotarauta, M. & Ayres, S. (2020) Every place matters: towards effective place-based policy. Regional Studies Policy Impact Books; Taylor & Francis.
  - Wøien, M., Kristensen, I. & Teräs, J. (2019) The status, characteristics and potential of smart specialisation in Nordic Regions. Nordregio Report 2019:3.

Work

Work for the class includes following the online and on-campus lectures, independent reading and writing an online learning diary.

- Everybody will write the learning diary in English

Tuni-Exam Learning Diary

- The Tuni-Exam will be open for writing a learning diary twice during the course:
  - Diary 1: Nov. 5 – Nov. 11.
  - Diary 2: Nov. 25 – Dec. 5
- Remember to book yourself a slot during the above opening periods – perhaps already today
  - https://sites.tuni.fi/exam/

- In the system, there will be broad thematic questions for contemplation, writing an online diary
- Introduce the main arguments and other important points of a course through your observations and interpretations

Registration link:

- https://exam.tuni.fi/enrolments/329936?code=HAL.KAJO.214_otm-9d8e9acf-d236-414a-a86b-343178600802_2024

Diary 1 includes

- General issues related to local and regional development – Markku's talks
- Andrés Rodríguez-Pose - The geography of EU discontent (47:59)
- Andrès Rodriguez-Pose: The revenge of the place in a nutshell, complements the above (5:58)
- Andy Pike: Shifting Horizons in Local and Regional Development. (20:24)
- Beer, A., McKenzie, F., Blažek, J., Sotarauta, M. & Ayres, S. (2020) Every place matters: towards effective place-based policy. Regional Studies Policy Impact Books; Taylor & Francis.

Diary 2 includes

- Cluster, innovation, competitiveness, path development
- Cluster Dynamics, part 1. March 3, 2010 (9:50)
- Cluster Dynamics, part 2. March 3, 2010 (9:43)
- Cluster Policy, part 1. March 3, 2010 (9:49)
- Cluster Policy, part 2. March 3, 2010 (9:29)
- Wøien, M., Kristensen, I. & Teräs, J. (2019) The status, characteristics and potential of smart specialisation in Nordic Regions. Nordregio Report 2019:3

Learning diary

Consider following questions when writing a diary

- What was argued for, why is it important, are there any counter arguments?
- What did I learn? What was new to me? Was there something that changed my views and why?
- What did I not understand? What went against my own assumptions? Why? What was less comprehensible? Why?

Diary 1

- Consider the two questions you'll face on the Tuni-Exam as prompts to ponder your learning.
- Regional development and place-based policy
    1. Why is it important to work for local/regional development?
    2. What should we focus on to make place-based policies work well for regions?

Core questions in urban and regional studies

(Storper 2013)

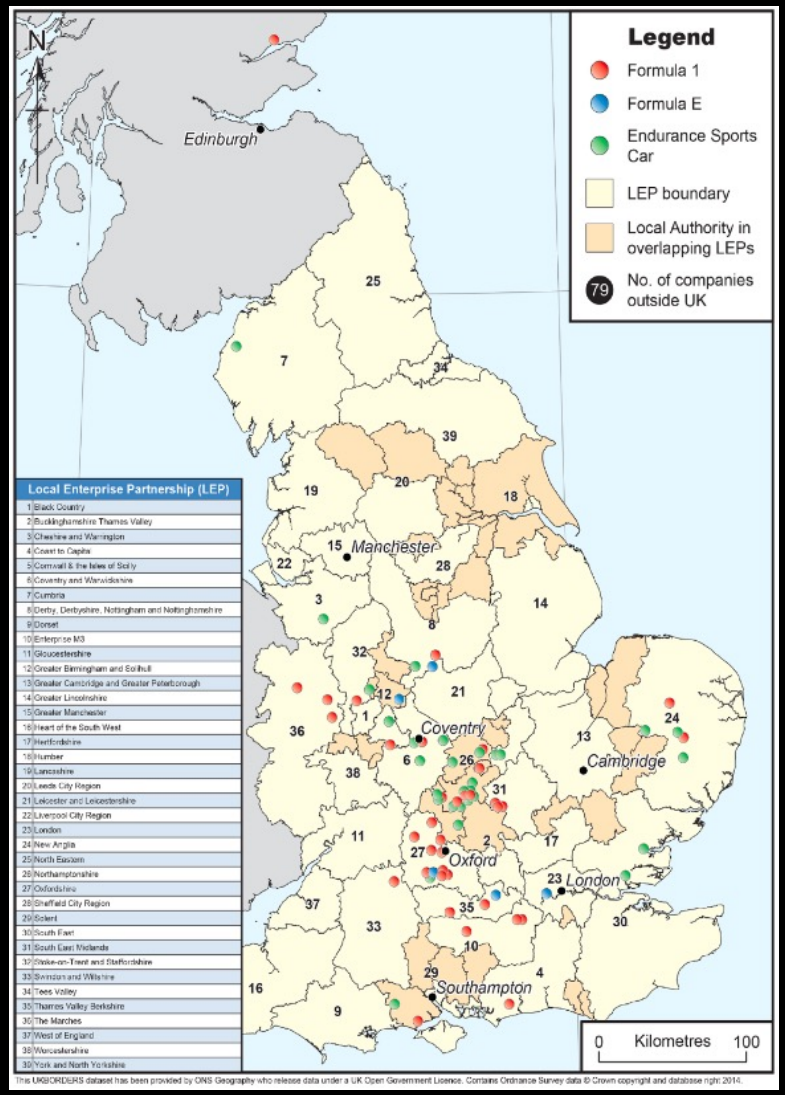
- Why do some regions grow while the others decline?
- What differentiates regions that are able to sustain beneficial development from those that are not?
- Why are some regions more productive and/or innovative than others?
- What are the principal regularities in urban and regional growth?
- What are the events and processes that affect development pathways?

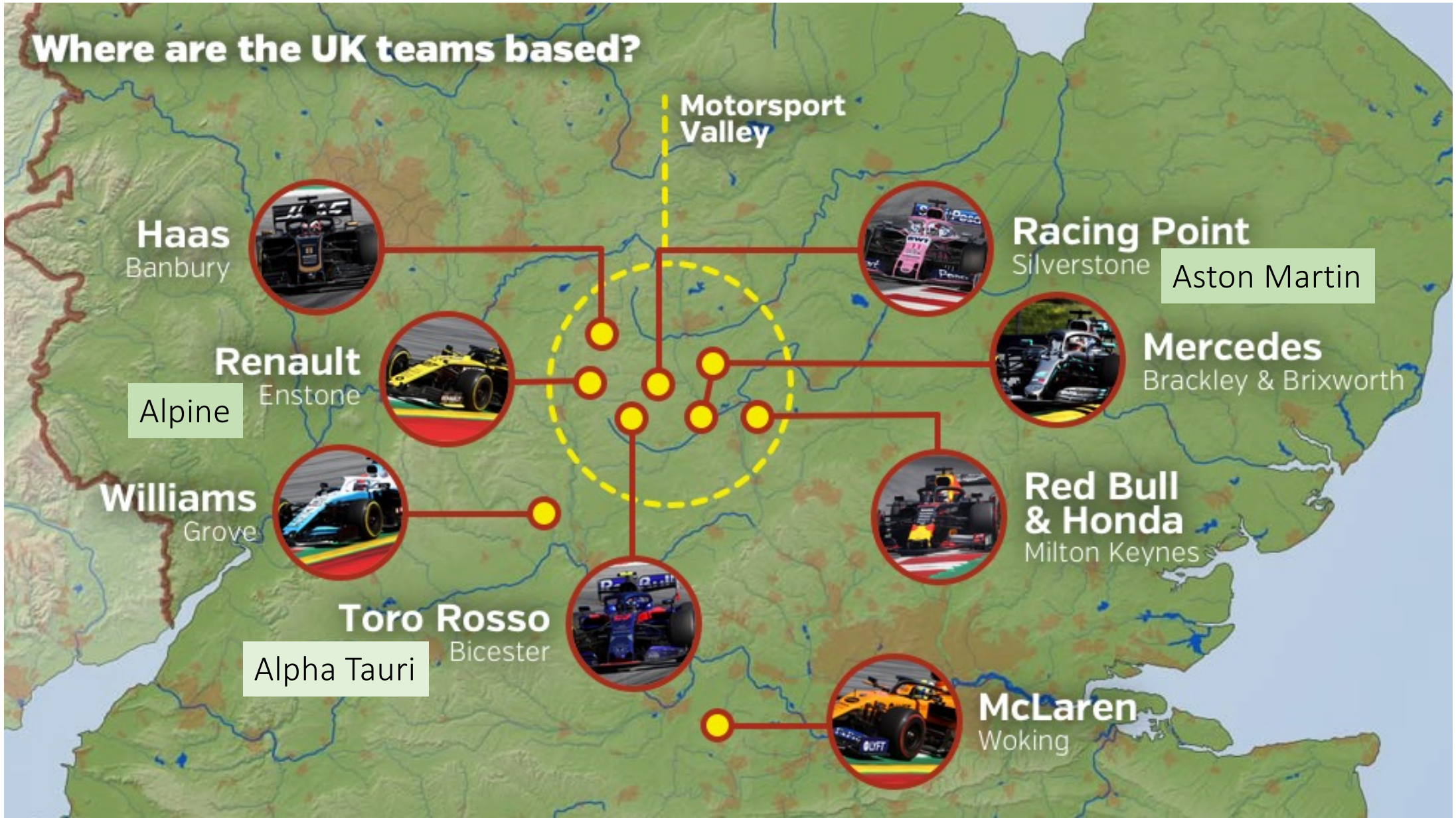
Questions, comments?

Regional development and place-based policy

Knowledge economy - Spiky or flat, centralised or decentralised?


Why are most of the Formula 1 teams located in the same reagion?
(Henry & Pinch, 2000; Henry, Angus & Jenkins, 2021)


N
Edinburgh
Manchester
Coventry
Cambridge
Oxford
London
Southampton
Legend
Formula 1
Formula E
Endurance Sports Car
LEP boundary
Local Authority in overlapping LEPs
79
No. of companies outside UK
0
Kilometres
100
Local Enterprise Partnership (LEP)
1 Black Country
2 Buckinghamshire Thames Valley
3 Cheshire and Warrington
4 Coast to Capital
5 Cornwall & the Isles of Scilly
6 Coventry and Warwickshire
7 Cumbria
8 Derby, Derbyshire, Nottingham and Nottinghamshire
9 Dorset
10 Enterprise M3
11 Gloucestershire
12 Greater Birmingham and Solihull
13 Greater Cambridge and Greater Peterborough
14 Greater Lincolnshire
15 Greater Manchester
16 Heart of the South West
17 Hertfordshire
18 Humber
19 Lancashire
20 Leeds City Region
21 Leicester and Leicestershire
22 Liverpool City Region
23 London
24 New Anglia
25 North Eastern
26 Northamptonshire
27 Oxfordshire
28 Sheffield City Region
29 Solent
30 South East
31 South East Midlands
32 Stoke-on-Trent and Staffordshire
33 Swindon and Wiltshire
34 Tees Valley
35 Thames Valley Berkshire
36 The Marches
37 West of England
38 Worcestershire
39 York and North Yorkshire
This UKBORDERS dataset has been provided by ONS Geography who release data under a UK Open Government Licence. Contains Ordnance Survey data © Crown copyright and database right 2014.


Where are the UK teams based?
Motorsport Valley
Haas
Banbury
Racing Point
Silverstone
Aston Martin
Renault
Enstone
Alpine
Mercedes
Brackley & Brixworth
Williams
Grove
Red Bull & Honda
Milton Keynes
Toro Rosso
Bicester
Alpha Tauri
McLaren
Woking

Motor Sport Valley

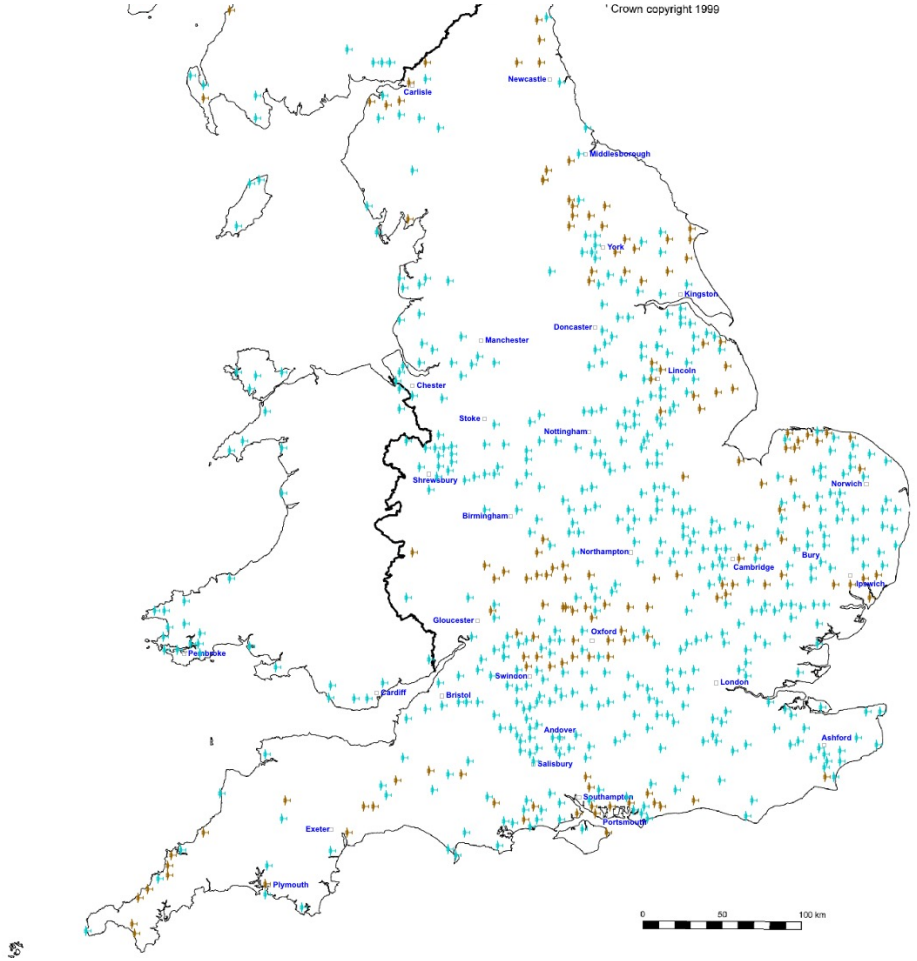
(Henry & Pinch, 2000; Henry, Angus & jenkins, 2021)

- The UK is the world leader in global motorsport, most of the teams are based in the UK
  - 4300 companies
  - Over £ 9bn sales turnover worldwide
  - 41,000 staff
  - 6 universities
  - R&D at around 25–30% of turnover
- Solutions also to pharmaceuticals, marine and aerospace, for example
  - Integrated systems, telemetery, telematics, etc.

Of primary importance

- rapid turnover of staff
- information leakage through links with suppliers
- new firm formation by insiders
- informal collaboration
- gossip and rumour
- personal contact network
- observation in the pit lane during races

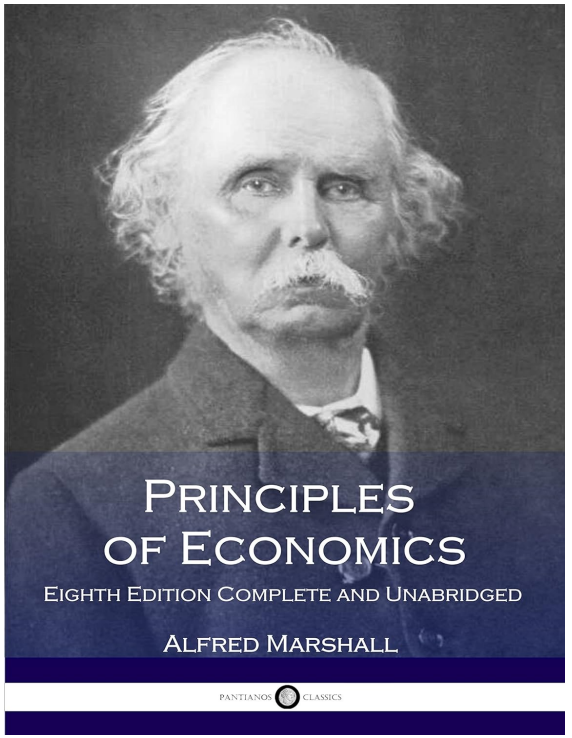
Its location is a result of the Second World War


© Crown copyright 1999
Carlisle
Newcastle
Middlesbrough
York
Kingston
Doncaster
Manchester
Lincoln
Chester
Stoke
Nottingham
Shrewsbury
Norwich
Birmingham
Northampton
Cambridge
Bury
Ipswich
Gloucester
Oxford
Pembroke
Swindon
Cardiff
Bristol
London
Andover
Ashford
Salisbury
Southampton
Portsmouth
Exeter
Plymouth
0
50
100 km

Agglomeration economies

- are the benefits that come when firms and people locate near one another together in cities and industrial clusters
- exist when production is cheaper because of clustering
- support learning and knowledge sharing
- make possible to establish other businesses that may take advantage of clustered economies without joining any big organisation.

(Marshall in the late 19th century; Glaeser, 2010; and many others)



Why – traditional explanations

Large scale internal economies

- Firms locate their activities in one place to reduce costs
- But also, firms locate their activities in different parts of the world to reduce costs, access markets and/or tap into expertise

Localisation economies

- Many firms and other organisations may take advantage of local economies of scale when important resources (labour, information, etc) are located close to the organisation.

Urbanisation economies

- Economies of scale related to urbanisation; concentrations of assets that 'everybody' can exploit
  - advanced labour markets, infrastructure, logistics, services, educational services, local demand etc.
- "Pick and mix" -model

Since the 1990s, we have believed and still do

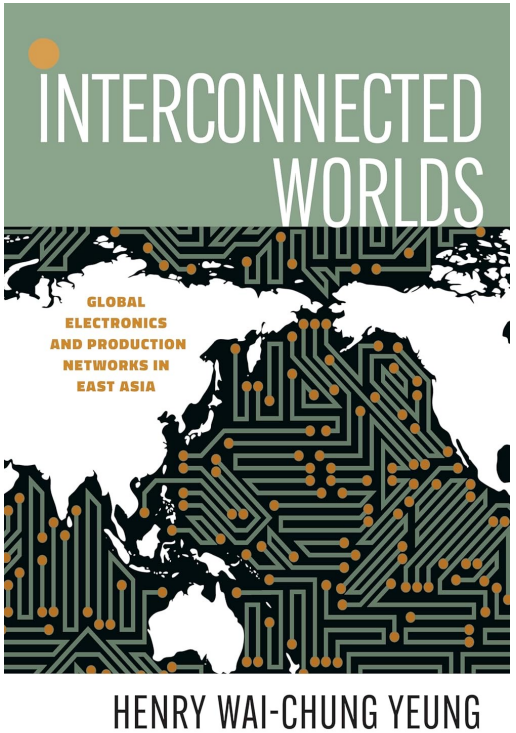
"Regions [cities] are becoming focal points for knowledge creation and learning in the new age of global, knowledge-intensive capitalism"

"In fact, despite continued predictions of the end of geography, regions [cities] are becoming more important nodes of economic and technological organization on a global scale."

"Regions [cities] function as collectors and repositories of knowledge and ideas, and provide the underlying environment or infrastructure which facilitates the flow of knowledge, ideas and learning."

Now – geopolitical shifts and challenges

- Geopolitical tensions
  - US-China trade wars
  - War in Ukraine
- Technological competition and rapidly evolving markets
  - US sanctions on Chinese semiconductors; leading-edge chip making; global chip shortage in automotives; etc.
- Manufacturing dependency on China
  - Not easy to move production from place to place – an entire ecosystem needed



A Chip War?

It’s hard to imagine a world without microchips. They’re at the heart of the devices that we use to work, travel, stay fit and entertain ourselves – from cars to smartphones and from MRI scanners to industrial robots and data centers

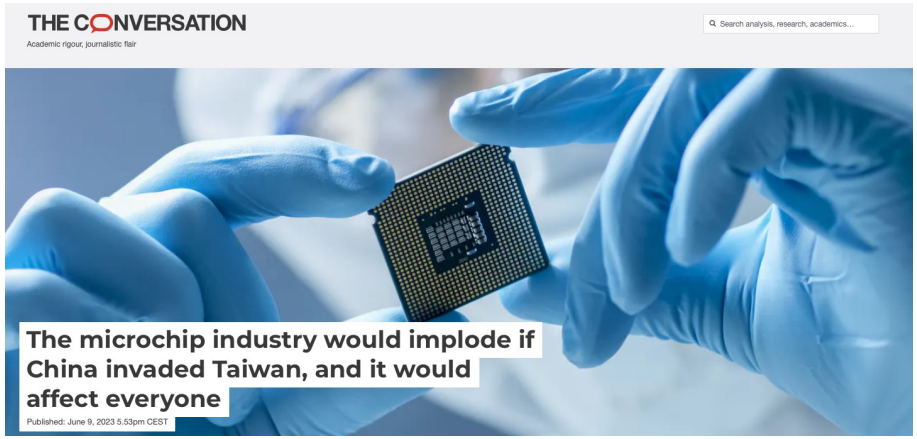
Chip features are measured in nanometers.

A nanometer is one billionth of a meter, or a millionth of a millimeter.

The smallest chip at the moment is 2 nm

A hair is 100,000 nm

Why are we so worried about China/Taiwan relationships?

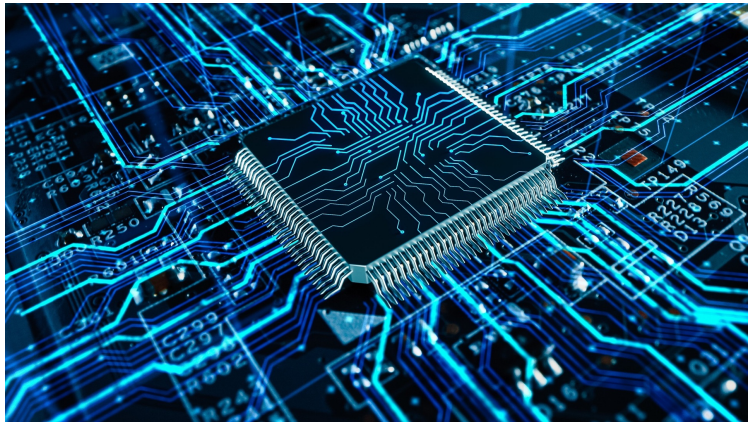


- Design often stemming from US, Japanese or European firms
- Manufacturing taking place in Taiwan and South Korea
- Manufacturing extremely complex – advanced machines and skilled labour called for
- Close collaboration between Silicon Valley and Taiwan
- Taiwan alone manufactures more than 60% of the world's semiconductors — and crucially, 90% of the most advanced ones

  Taiwan Semiconductor Manufacturing Company (TSMC)

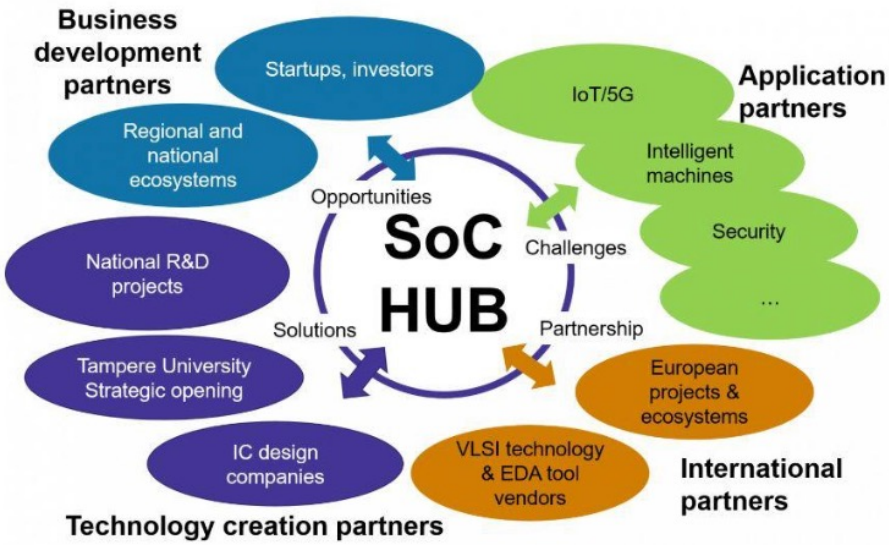
Geopolitical shifts and challenges in chip economy

- Defensive and protectionist interventions
  - CHIPS for America Act / $52 billion
  - Integrated Circuit investment Fund of China / €150 billion
  - European Chips Act / €46 billion
- TSMC (Taiwan), Samsung, SK Hynix (South Korea) each spending €100-150 billion over the next 3-5 years



Overcapacity in making?
Demand for mobile phone decreasing

70 companies currently operate in the Finnish semiconductor sector, employing approximately 5,000 people with a combined turnover of almost EUR 2 billion



NOKIA Tampere University VLSI SOLUTION Wapice

CARGOTEC CoreHW FLEXIBILIS procemex

'Chips from Finland' Initiative: The World is Fighting for Microchips – Finland Can Become Top in Europe

News item | 17.3.2023 14.10

While the world's superpowers are fighting for domination over microchips, Finland has excellent chances to become the top in European microchip expertise. To this end, the Semiconductors branch group Technology Industries of Finland, other corporate partners, VTT Technical Research Centre of Finland, Tampere University and Aalto University together with the cities of Tampere and Espoo are proposing a national microchip programme in Finland.

Microchips are used for example in many consumer devices, such as cell phones.

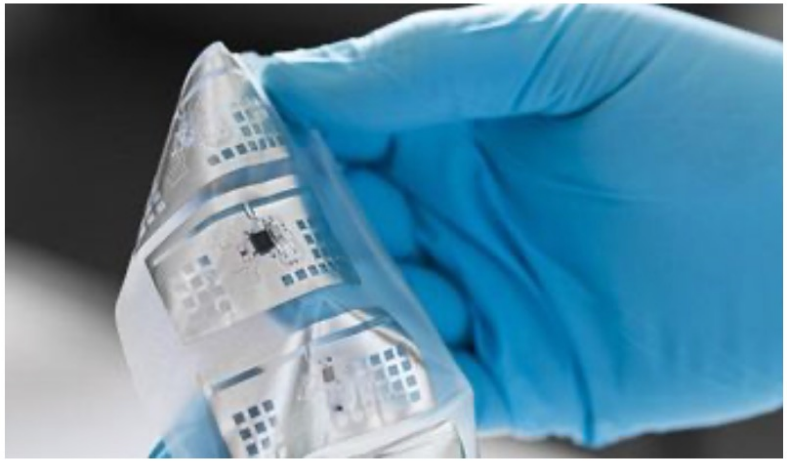
BUSINESS TAMPERE

For Companies | Investments | Business Environment | News | Events | About us | FI | EN

News

A pilot line for semiconductor chip packaging to be built in Tampere – University receives €40 million funding

15.4.2024



Part of the €40 million funding comes from the European Union and part from the Finnish government. In total, the EU has selected four pilot line proposals to significantly enhance Europe's self-sufficiency in microchips in the coming years.

Lue seuraavaksi

Would you rather have a match-box or a Tic Tac under your skin? A Tampere-based company aims to dominate the world of small smart implants

News | 17.5.2024

Winse Power from Tampere, Finland admitted into the European Space Agency Business Incubator program

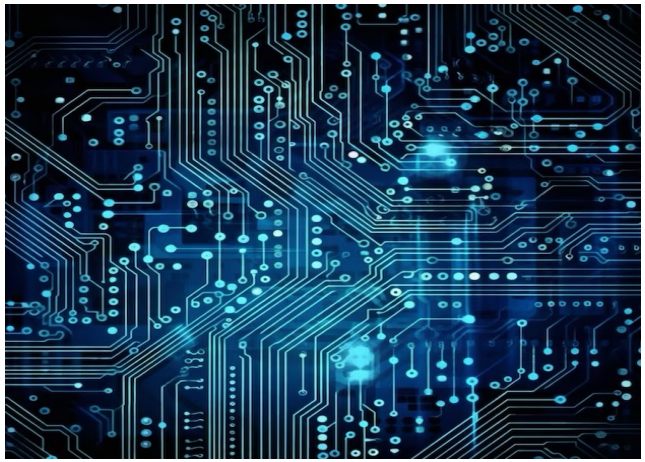
News | 11.12.2023

Tampere region strengthens its investment in the chip industry

News | 22.6.2023

Tampere University is a partner in the WBG Pilot Line. It focuses on developing wide bandgap (WBG) semiconductors and testing and integrating WBG chips

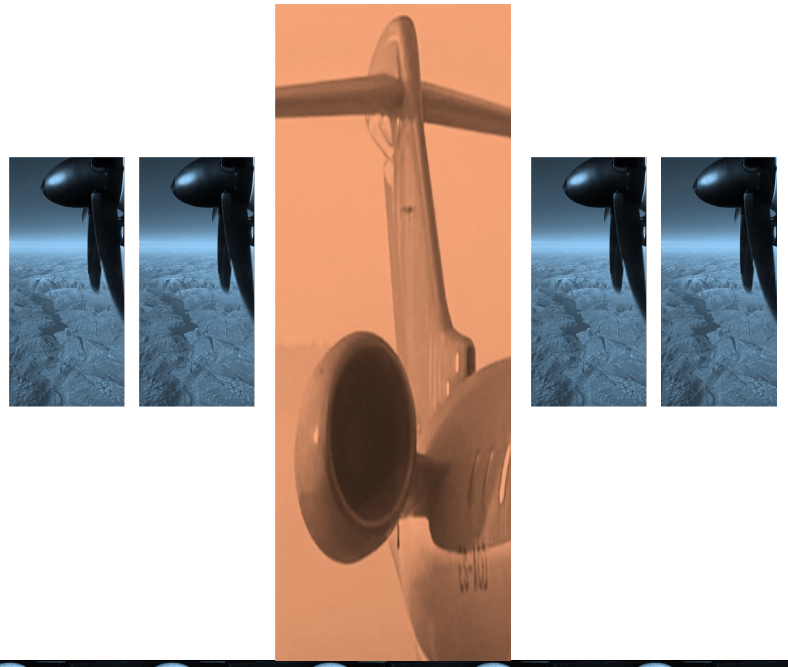
WBG is next-generation semiconductor technology with a wide range of applications (in motor control systems, battery management systems, fast charging systems, photovoltaic inverters, power supply systems and 5G base stations)



Knowledge economy

- Knowledge ages rapidly and new knowledge is constantly replacing the old one
- Scientific (including social scientific) knowledge is highly valued
  - The scale and economic penetration of scientific knowledge exceeds distinctly the previous economic development phases

- Knowledge economies are especially characterized by exploitation of new knowledge to create more new knowledge



Spiky or flat?

Centralised or decentralised

Thomas Friedman: Flat world (2005)

- Digitalisation enables -> “anything is possible anywhere”
- Based on anecdotal evidence

Manuel Castells: Network Society (1996)

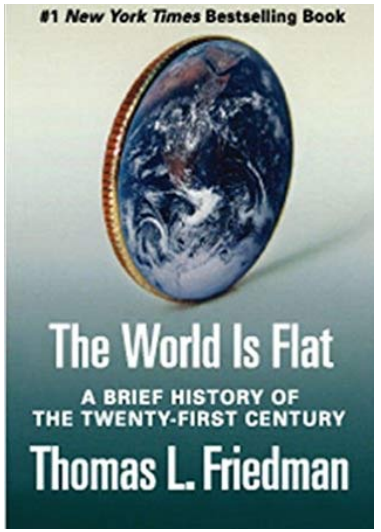
- Global network between cities

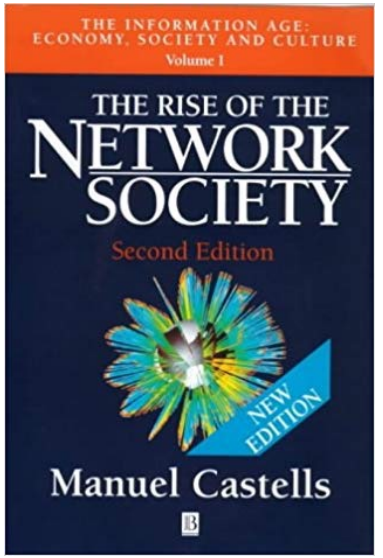
Richard Florida (and many others): Spiky World (the rise of… 2002)

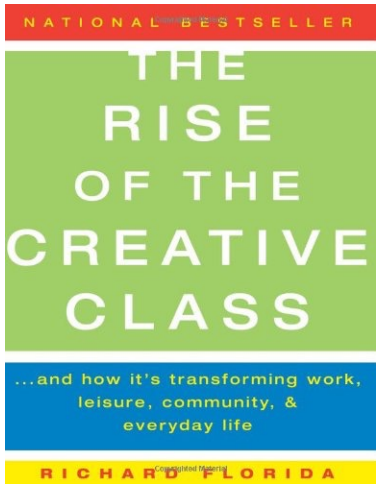
- Innovation emerges somewhere; local conditions important
- New knowledge production tends to concentrate

Consensus

- Geography matters

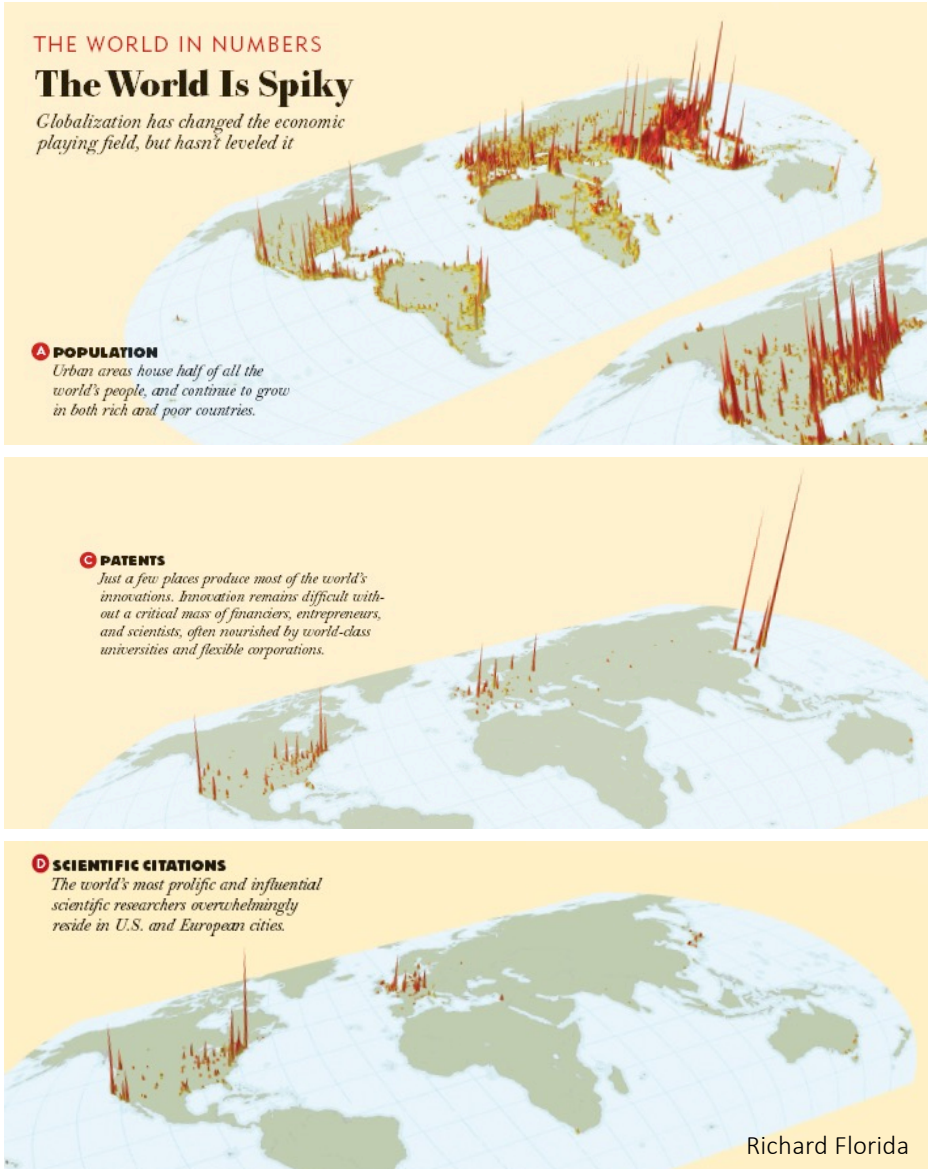


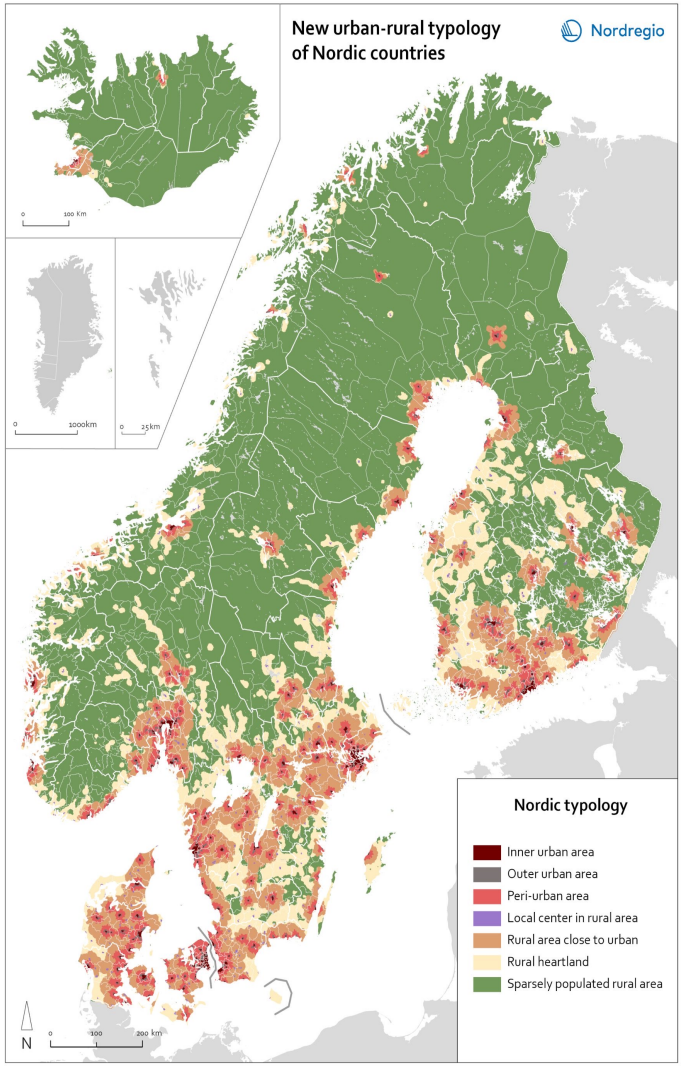


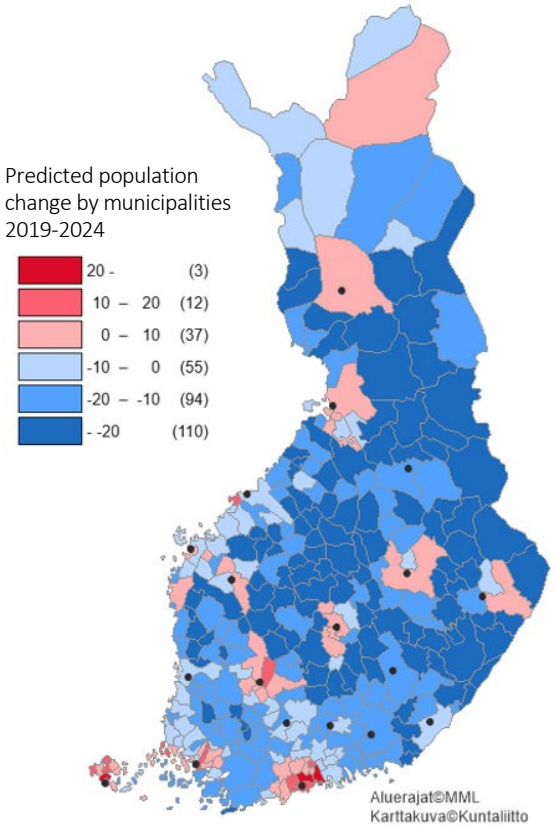


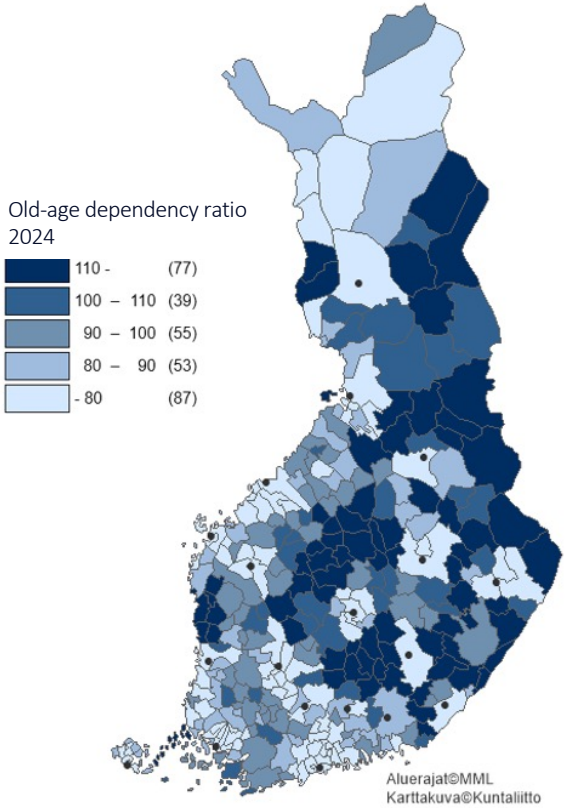
What differentiates regions that are able to sustain growth from those that are not?

- Location?
- Clusters?
- Innovation ecosystems?
- Universities?
- Human capital?
- Governance systems?
- Leadership?
- …



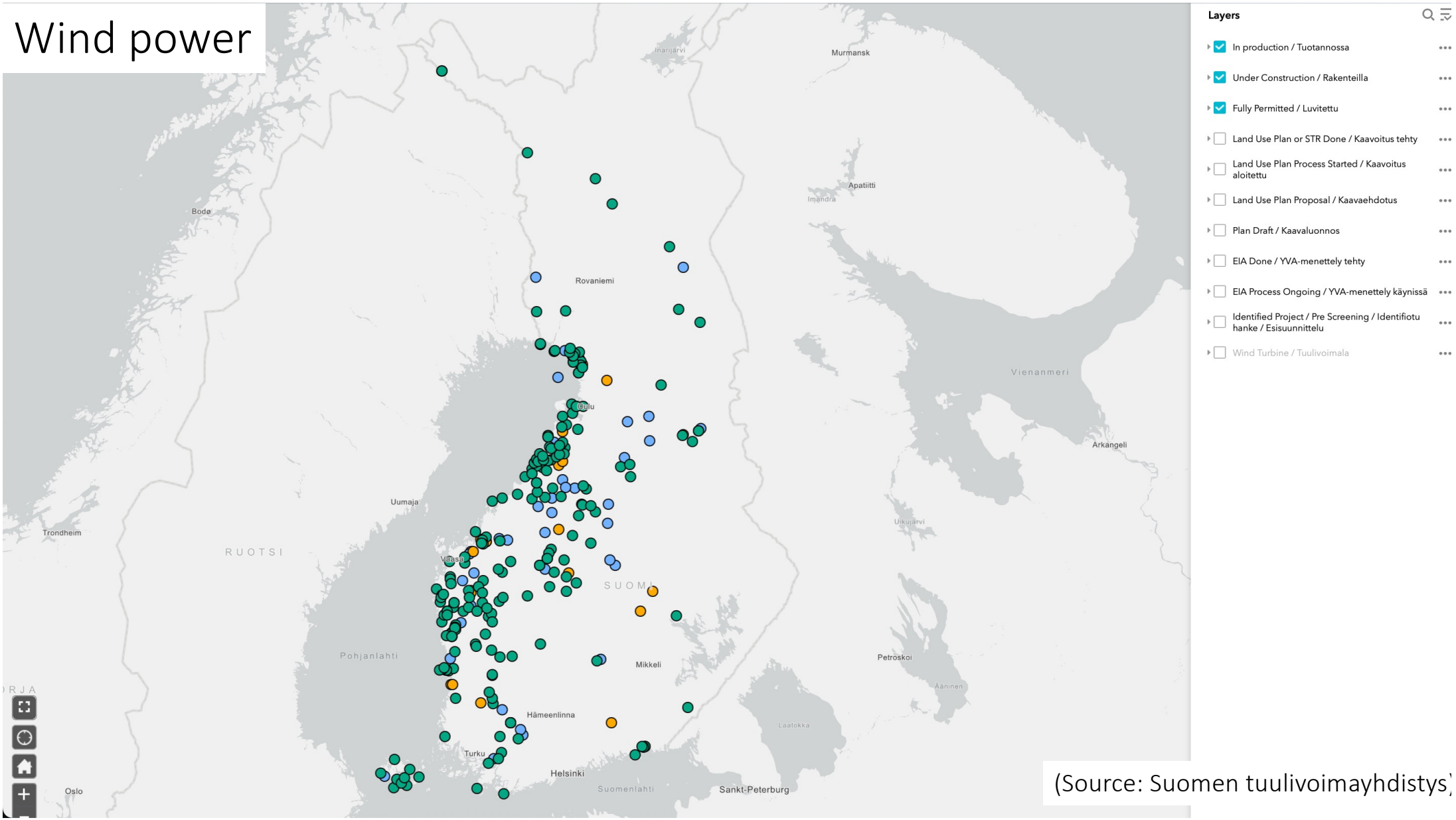






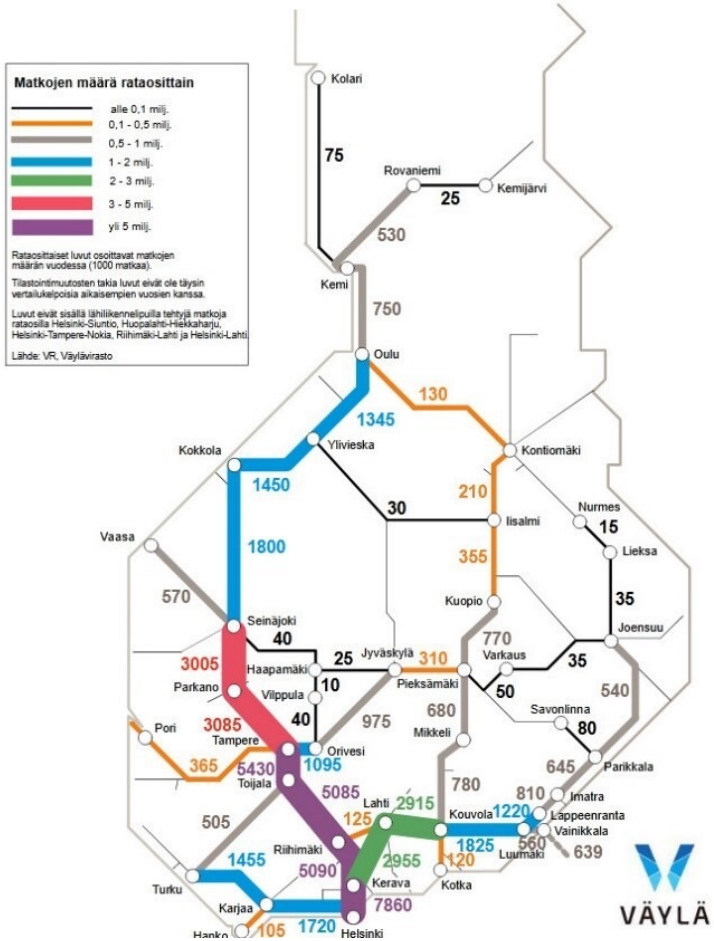
Old-age dependency ratio is the number of individuals aged 65 or older per 100 people of working age, defined as those aged between 20 to 64 years old.

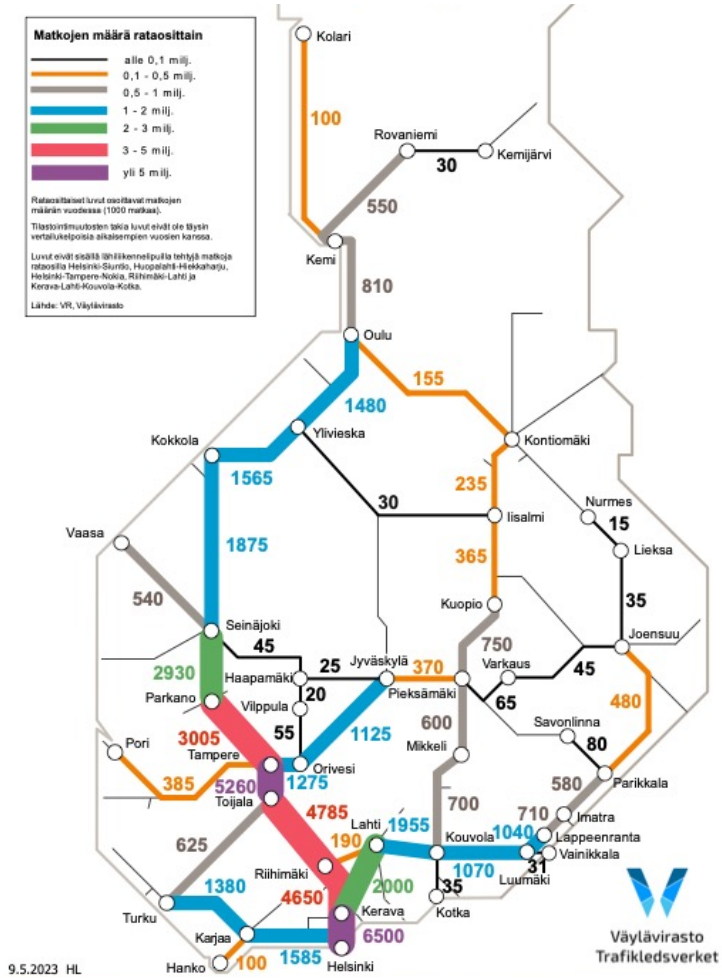
Wind power



(Source: Suomen tuulivoimayhdistys)

Railway traffic in Finland in 2019 and 2022





https://tieto.traficom.fi/en/statistics/railway-network-traffic / https://vayla.fi/documents/25230764/55126781/Rautateiden+kaukoliikenne+2022+rataosittain_090523.pdf/d6a36e89-d313-baed-13e2-b17b494522c0/Rautateiden+kaukoliikenne+2022+rataosittain_090523.pdf?t=1683624932988

The golden triangle of Finland

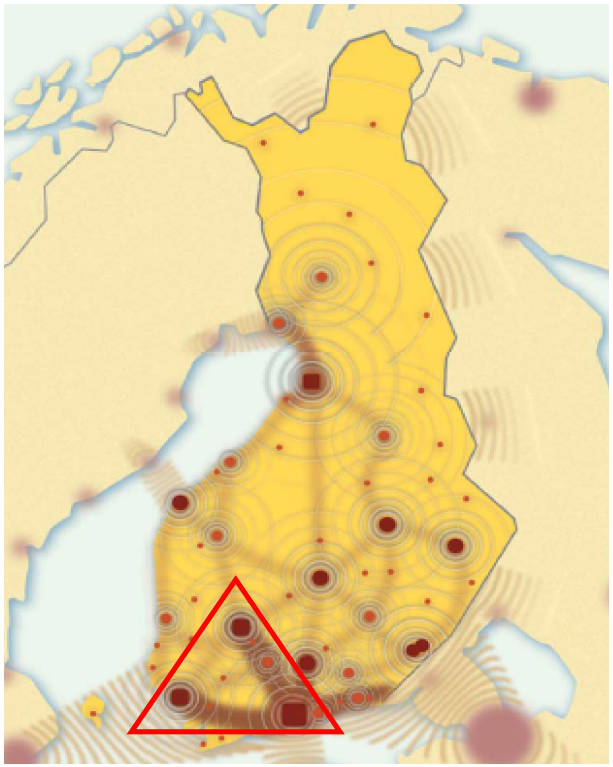
Appr. 50 % of polulation

More than 50 % of firms

Close to 60 % of the GDP

Appr. 65 % of academically educated

Appr. 70 % Research and development (+ Oulu = appr 80%)



A vision from the late 1990s

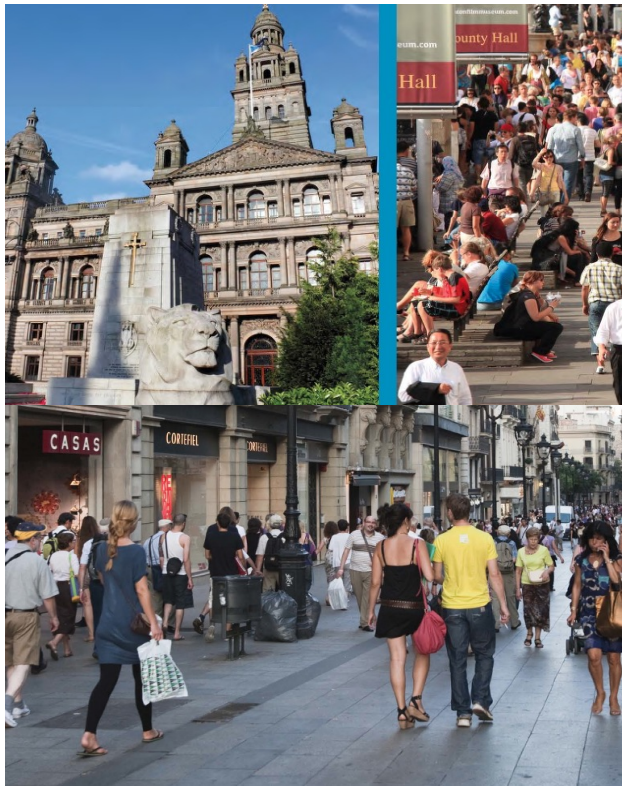
The Ministry of the Environment

How about
the rest of country?

Overly centralised spatial structure is harmful both for a country and its cities

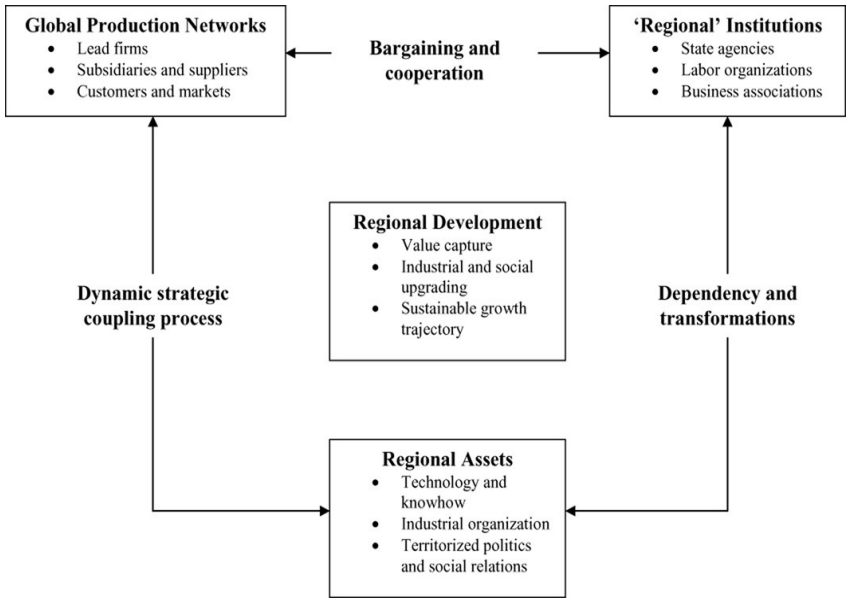
- Balanced spatial structure with several strong cities seems to be the best
- City-regions are the core

(Source: Second Tier Cities and Territorial Development in Europe: Performance, Policies and Prospects –project)



We cannot talk about local/regional development without understanding global changes

We cannot talk about economic development at national level without understandig what's going on in our localities and regions



Questions, comments?