

# BREXIT NORTH SUMMIT

#brexitnorth

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CITY  
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IP  
PR<sup>North</sup>



# Welcome

**Cllr Judith Blake** – Leader, Leeds City Council

**Tom Riordan** – Chief Executive, Leeds City Council

# Introduction and background

**Prof. Anand Menon**, Director of UK in a changing Europe

**Prof. Raquel Ortega-Argiles**, project leader at City-REDI – The University of Birmingham

# The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors



# The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors



## **Welcome Address**

**Professor Raquel Ortega-Argilés,  
City-REDI - University of Birmingham**

# The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors



## The research team

**Raquel Ortega-Argilés**

**(Project leader, City-REDI Institute, University of Birmingham),**

Chloe Billing and Deniz Sevinc (City-REDI Institute, University of Birmingham),

Philip McCann (University of Sheffield),

Wen Chen, Pieter IJtsma and Bart Los (Groningen University),

Nicola Cortinovis and Frank van Oort (Erasmus University Rotterdam),

Mark Thissen (PBL Dutch Government Environmental Agency)



# The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors

## The partners



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# Significance of the research



Funded by the Economic and Social Research Council, “The Economic Impacts of Brexit on the UK, its Regions, its Cities and its Sectors” project started in April 2017 and is part of a series of 25 projects funded by ESRC to support the initiative [The UK in a Changing Europe](#) coordinated by Professor Anand Menon at King’s College London.

The project aims to examine in detail the **likely impacts of Brexit on the UK’s sectors, regions and cities** by using the most detailed **regional-national-international trade** and **competition datasets**



# Interest and engagement at this stage

- [Annual Northern Ireland Economic Conference 2017](#)
- [Regional Studies Association](#)
- **Houses of Parliament**
- **HM Treasury**
- **BEIS Department**
- **Foreign Commonwealth Office**
- [West Midlands All Party Parliamentary Group](#)
- [EU Committee of the Regions](#)
- Birmingham Post-Brexit Commission
- [Managing Partners' Forum](#) – Professional and Business Services lobbying group
- European Parliament

# How the recommendations have been taken up and by whom until now

## Report contributions and mentions:

- [Brexit: Local and Devolved Government](#), UKICE
- [EU Referendum: One year on](#), UKICE
- [Article 50 one year on](#), UKICE
- [State of the North 2017: The Millennial Powerhouse](#), IPPR North
- [Will the unit of the 27 crack?](#), Centre for European Reform
- [Preparing for Brexit](#), Cambridge Econometrics
- [Brexit - What We Know Now](#), Tony Blair's Institute for Global Change
- [Wikipedia inclusion: Brexit](#)
- [UK Parliament](#)
- [Assessing the exposure of EU27 regions and cities to the UK's withdrawal from the European Union](#), CoR Committee of the Regions

# The analysis

- **Trade related effects:** Input-Output analysis; intermediate and final goods; global fragmentation of the value chains – local GDP, regional labour income
- **Competitiveness:** FDI, Trade and Knowledge
- **Governance:** regional stakeholder workshops and regional and sectoral case studies
- **Extent:** EU countries, UK and EU regions, sectors, jobs, occupations
- **New indicators and data**

# Regional Stakeholder Participatory Workshops

<i>Thematic Areas</i>	<i>Location, Date</i>
<ul style="list-style-type: none"><li>• <i>Devolved Administrations</i></li></ul>	<i>Edinburg, 4<sup>th</sup> May 2018</i>
<ul style="list-style-type: none"><li>• <i>West Midlands and Advanced Manufacturing Industries</i></li></ul>	<i>Birmingham, 11<sup>th</sup> May 2018</i>
<ul style="list-style-type: none"><li>• <i>Greater London and Service Industries</i></li></ul>	<i>London, 18<sup>th</sup> May 2018</i>
<ul style="list-style-type: none"><li>• <i>North of England</i></li></ul>	<i>Leeds, 21<sup>st</sup> May 2018</i>

# Keynote speech

Mayor Steve Rotheram, Liverpool City Region

# Session 1: The North in a Changing Europe

Dr. Sarah Longlands, Director of IPPR North (Chair)

Alison McGovern, MP for Wirral South

Professor Philip McCann, University of Sheffield

Professor Frank van Oort, Erasmus University Rotterdam

Professor Andy Pike, Newcastle University





# The Continental Divide? Economic Exposure to Brexit in Regions and Countries on Both Sides of the Channel

Wen Chen, Bart Los, Philip McCann, Raquel Ortega-Argilés, Mark Thissen and Frank van Oort

*Papers in Regional Science*, 97.1, 25-54

“Exposure to Brexit in Regions on Both Sides of the Channel”, 2017, VoxEU, 19 December, See: <http://voxeu.org/article/exposure-brexit-regions-both-sides-channel>

- Simple measures of **gross exports and imports** tell us **very little** about the potential impacts of Brexit on a nation or region, because both the **back-and-forth trade in raw materials**, **parts and components** and **business services** (often within the boundaries of multinational enterprises) typical of **global value-chains obscures the links between local value-added and trade** (Baldwin, 2016).

Two types of sources:

- The **World Input-Output tables** of the WIOD 2013 release containing 40 countries (accounting for about 85% of world GDP, including all EU27) plus a composite 'super-country' labelled 'Rest of the World' are represented (Timmer et al., 2015).
- Second type of data, **from regional sources**: Eurostat's regional economic accounts, a number of survey-based regional supply and use tables or input-output tables produced in a subset of countries, and estimates of interregional goods and services trade based on freight and airline business passenger statistics (Thissen et al., 2013).

The merging of the information contained in these data sources allows us to:

- **Incorporate regional details** regarding production structure and trade at the NUTS2-level for all major EU-countries in global input-output tables for 2000-2010.
- 245 NUTS2 European regions are represented and 14 industries can be identified for all regions and countries.

- We develop a **measure of regional exposure to Brexit** building upon a flourishing strand of literature using **global input-output tables** to link **trade to value-added** (Johnson and Noguera, 2012; Timmer et al., 2013; Koopman et al., 2014).
- We use a bilateral version of the **Domestic Value Added in Exports (DVAiX)** indicator proposed by Koopman et al. (2014).

# Input-Output Data

## Scenario:

No trade flows crossing the red line, as long as EU countries are involved (trade between e.g. Norway and UK regions still "allowed")

IO-tables allow for mapping of trade to labor income and value added

“Regional GDP exposed to Brexit”:

Difference between actual GDP and GDP without EU-UK trade

# Research Question

*“Which shares of regional Labor Income and regional GDP are at risk as a consequence of future Brexit-related trade barriers?”*

(which is not identical to:

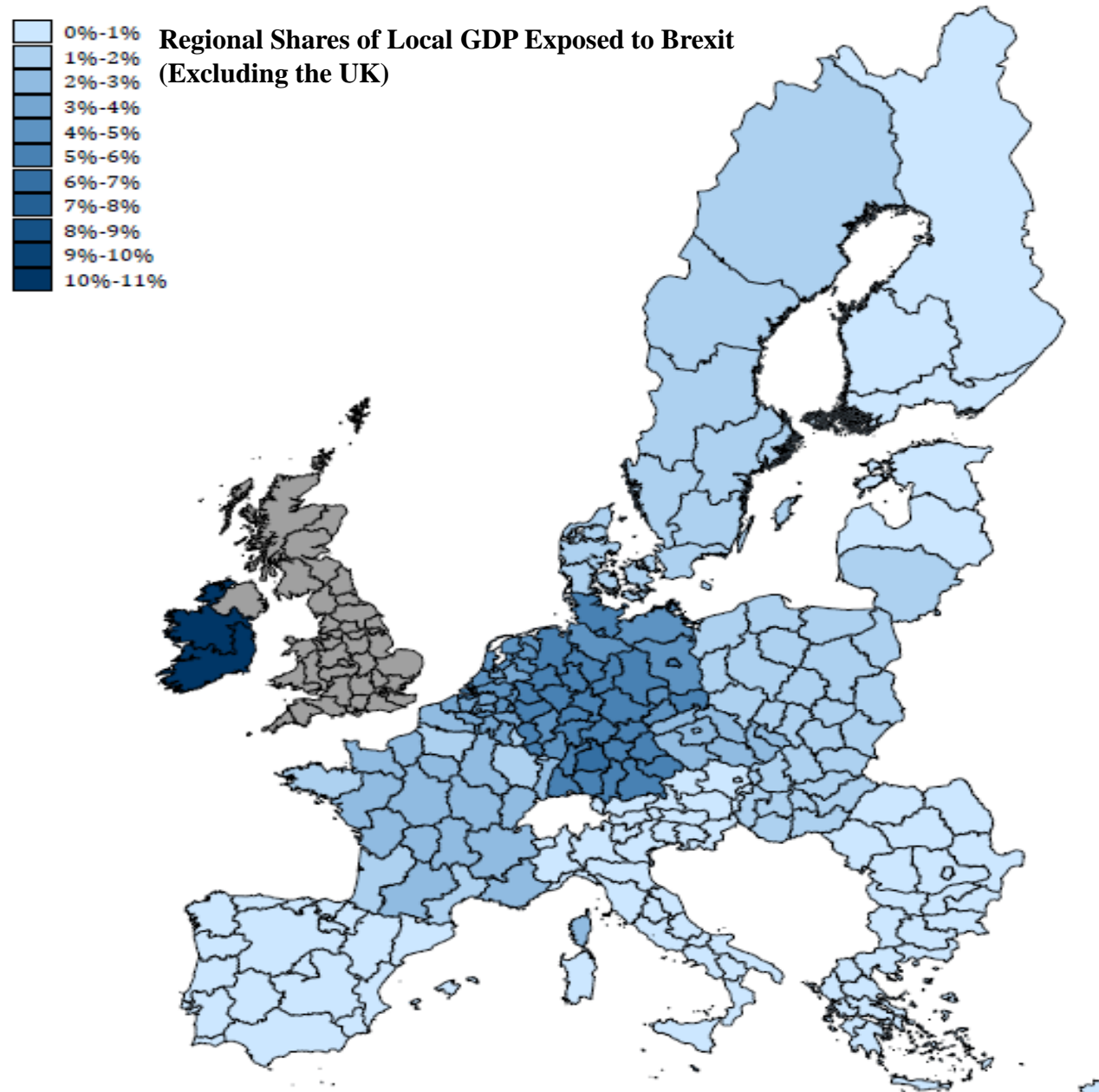
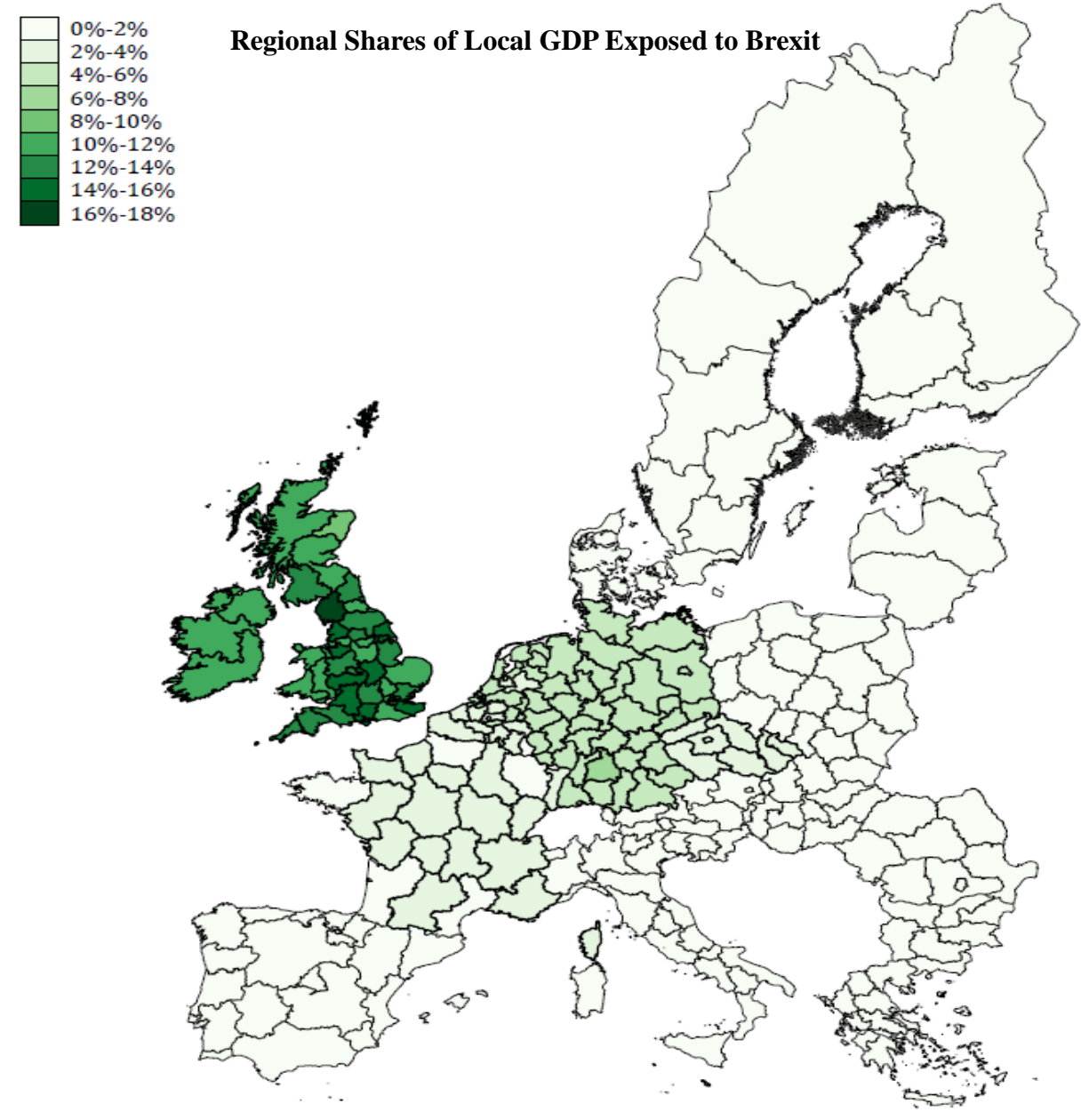
“Which shares of regional LI and GDP will be lost as a consequence of Brexit?”)

*How big are the required structural and economic adjustments?*

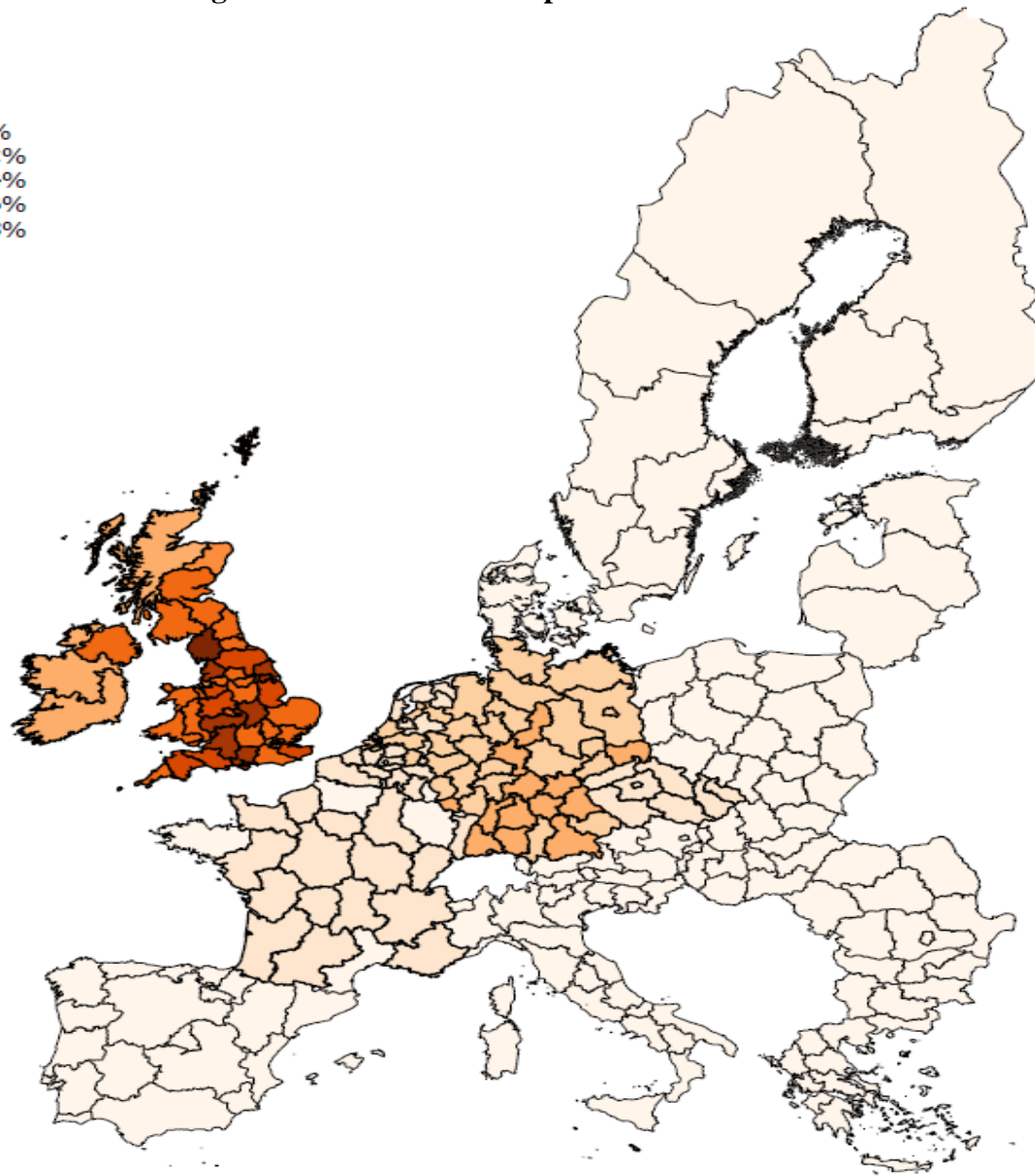
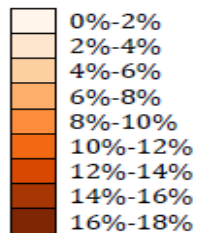


# Brexit Exposure Risk

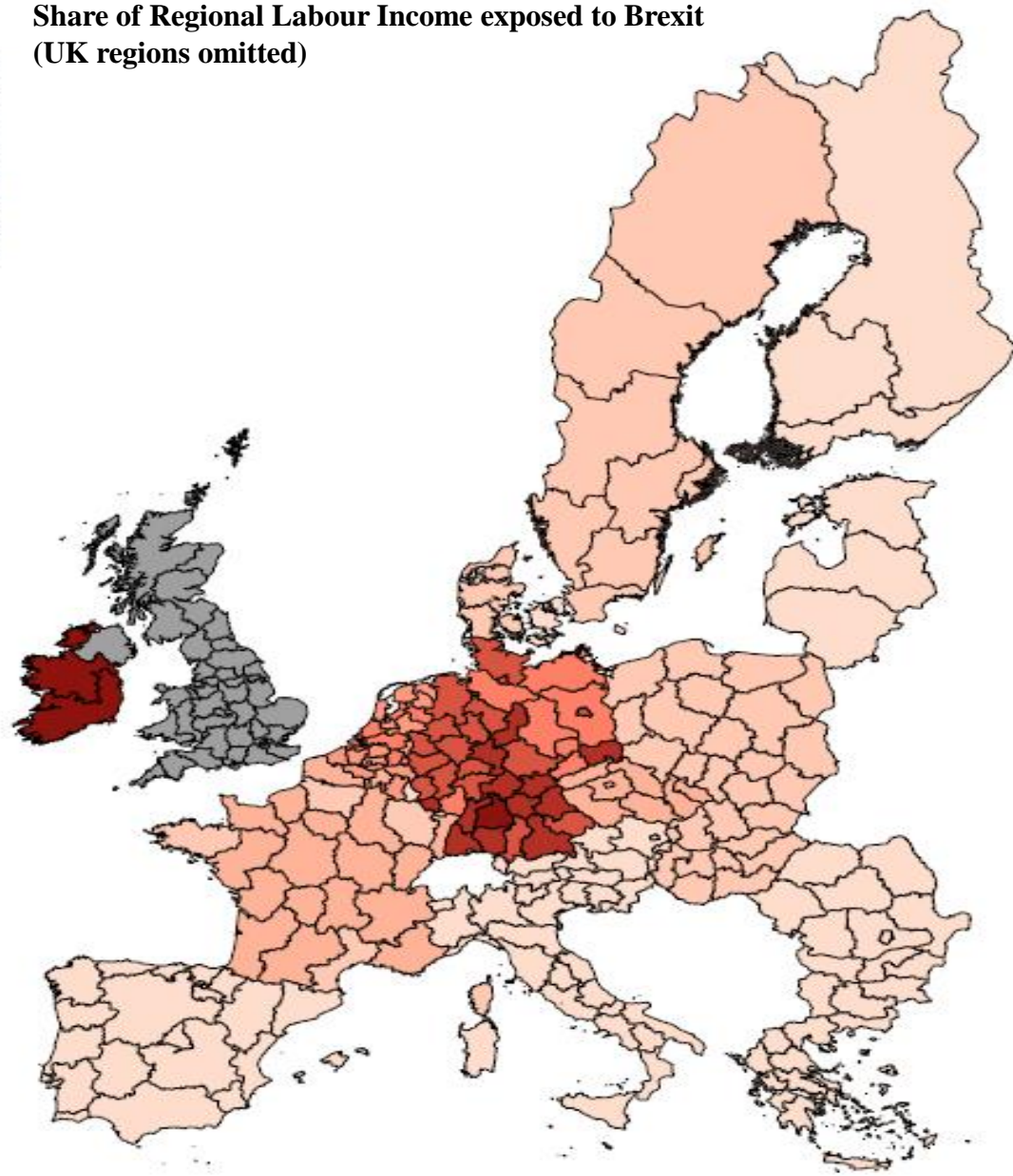
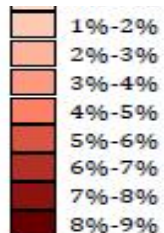
- For UK regions:
  - direct trade linkages (export, import, re-export, re-import)
  - indirect trade linkages via other UK regions
  - third country demand mediated via EU value-chains
- For EU regions:
  - direct trade linkages (export, import, re-export, re-import)
  - indirect trade linkages via other EU regions
  - third country demand mediated via UK value-chains
- Exclude UK-EU and EU-UK demand linkages mediated via third countries



Share of Regional Labour Income exposed to Brexit



Share of Regional Labour Income exposed to Brexit  
(UK regions omitted)



# National Brexit Exposure Risk

- UK regions → 10%-17% of regional GDP
- Irish regions → 10% of regional GDP
- German regions → 4.5%-6.4% of regional GDP
- Dutch regions → 3.5%-5% of regional GDP
- Belgian regions → 2.8%-4% of regional GDP
- French regions → 1.8%-2.7% of regional GDP
- Italian, Spanish, Greek → < 1% of GDP
- UK Brexit risk exposure = 12.2% of UK GDP
- EU Brexit risk exposure = 2.64% of EU GDP
- UK Brexit exposure risk is 4.6 times higher than the EU



# Sectoral Brexit Exposure Risk

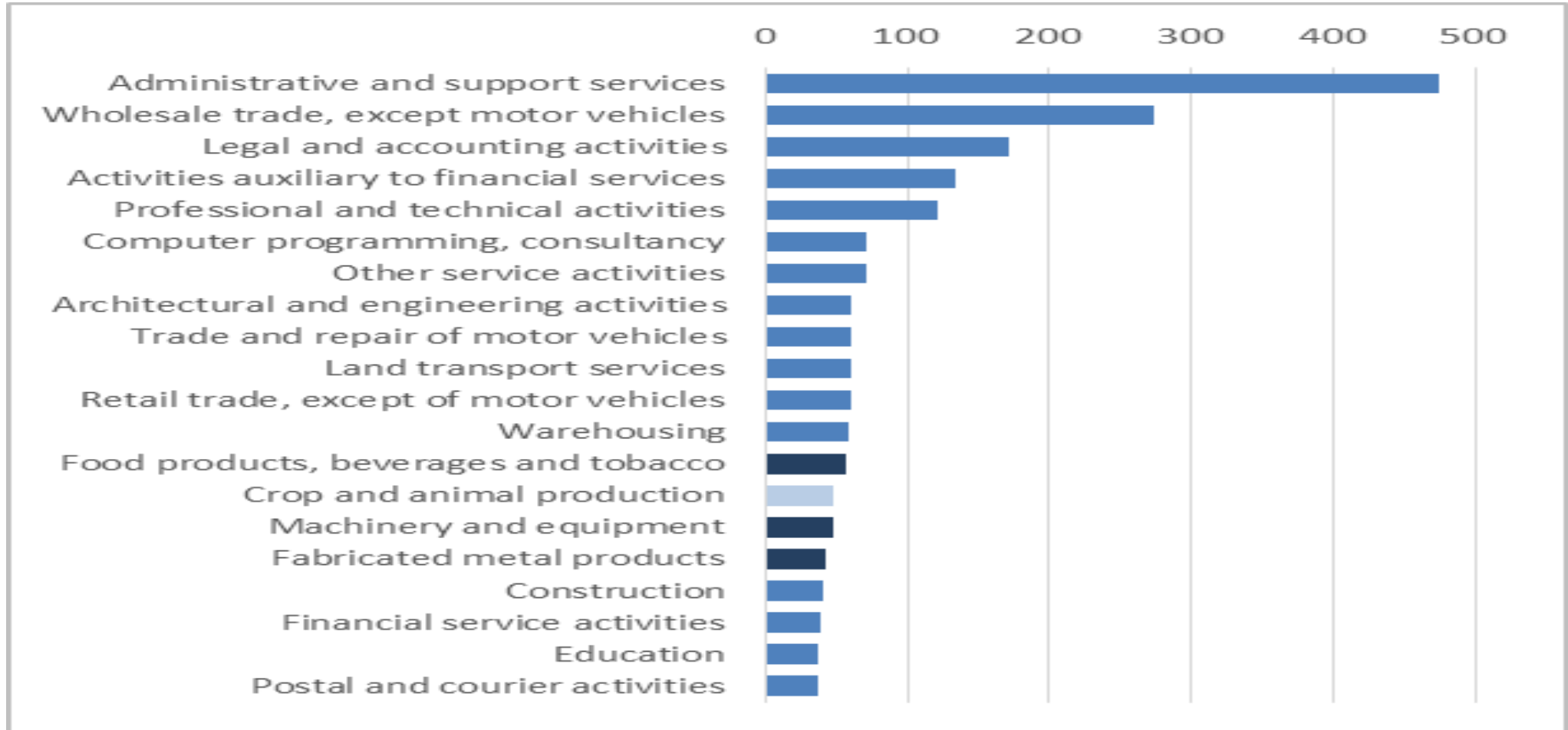
City-REDI Policy Briefing Series, December 2017

“An Assessment of Brexit Risks for 54 Industries: Most Services Industries are also Exposed”

Bart Los, Wen Chen, Philip McCann and Raquel Ortega-Argilés

[https://blog.bham.ac.uk/cityredi/wp-content/uploads/sites/15/2017/12/City-REDI-Briefing-Template\\_Sectoral-Analysis-2.pdf](https://blog.bham.ac.uk/cityredi/wp-content/uploads/sites/15/2017/12/City-REDI-Briefing-Template_Sectoral-Analysis-2.pdf)

# UK Sectoral Risk Exposure





# UK Sectoral Risk Exposure

In the UK as a whole, more than 2.5 million jobs are exposed to the trade effects of Brexit

Annually, almost £140 billion pounds of UK economic activity is directly at risk because of Brexit

Professional, scientific and technical activities, activities auxiliary to financial services and wholesale trade.

Financial services are only exposed to 8% of the sector's GDP - consistent with the estimates for City job relocation to rest of the EU – and the aggregate effect on the UK economy of their exposure is only 0.33% of UK GDP

# UK Sectoral Risk Exposure

Many important manufacturing and primary industries are highly exposed to Brexit, but so are many services industries (and not just the financial services industry)

These services are not only exported directly to EU countries, but also sell intensively within domestic supply chains to UK manufacturing firms exporting to the EU

Workers in the jobs at risk are on average slightly more productive than the average British worker – Brexit is likely to exacerbate the UK's productivity problems

Brexit Priority Grant: *The Impact of Brexit on the UK, Its Regions, Its Cities and Its Sectors*, ES/R00126X/1, Project Leader Professor Raquel Ortega-Argilés University of Birmingham City-REDI

For information please contact

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**City-Region Economic Development Institute**  
**Birmingham Business School**  
[R.Ortega-Argiles@bham.ac.uk](mailto:R.Ortega-Argiles@bham.ac.uk)



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## Brexit and Regional Economic Competitiveness

The Economic Impacts on the UK, its Regions, its  
Cities and Sectors

Mark Thissen (PBL),  
**Frank van Oort (EUR)** and Nicola  
Cortinovis (EUR)

Thissen & Van Oort | The Economic Impacts of Brexit on the UK, its Regions,  
its Cities and its Sectors | 21-5-2018

Towards an integrated regional economic development strategy

Home Region report Interactive policy pages

This site is developed by PBL Netherlands Environmental Assessment Agency. It introduces a policy concept in which three types of regional economic policies (industry-, innovation- and competitiveness policies) are combined in order to enable the development of a comprehensive regional economic development strategy. This concept is the starting point to develop a regional economic policy strategy of Eastern Scotland. The website does not present such a ready-made regional development strategy but combines tailor made regional economic information into an integral view on the state of the regional economy which should be the starting point of the development of any such regional development strategy.

Go to the the region report or the interactive policy pages if you want to know more about regional economic competitiveness policies and the economic state of different sectors in Eastern Scotland

Choose another European region

Show all regions for European countries ▼

Open the region report >

<http://themasites.pbl.nl/winnaars-verliezers-regionale-concurrentie/>

<http://www.torre.nl/eugrowth/bilingual4/>



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BUSINESS

ECONOMICS

🕒 June 2, 2015

## How does the north of England compare to the Ruhr or the Randstad?

By Jonn Elledge



### Editor's Pick



How far will people walk for public transport – and how close should stops be?

**TRANSPORT** IN THEORY



In London, "regeneration" all too often means "social cleansing"

**POLITICS** HOUSING



The UK's hub airport isn't London Heathrow. It's Amsterdam Schiphol

**TRANSPORT** BRITAIN

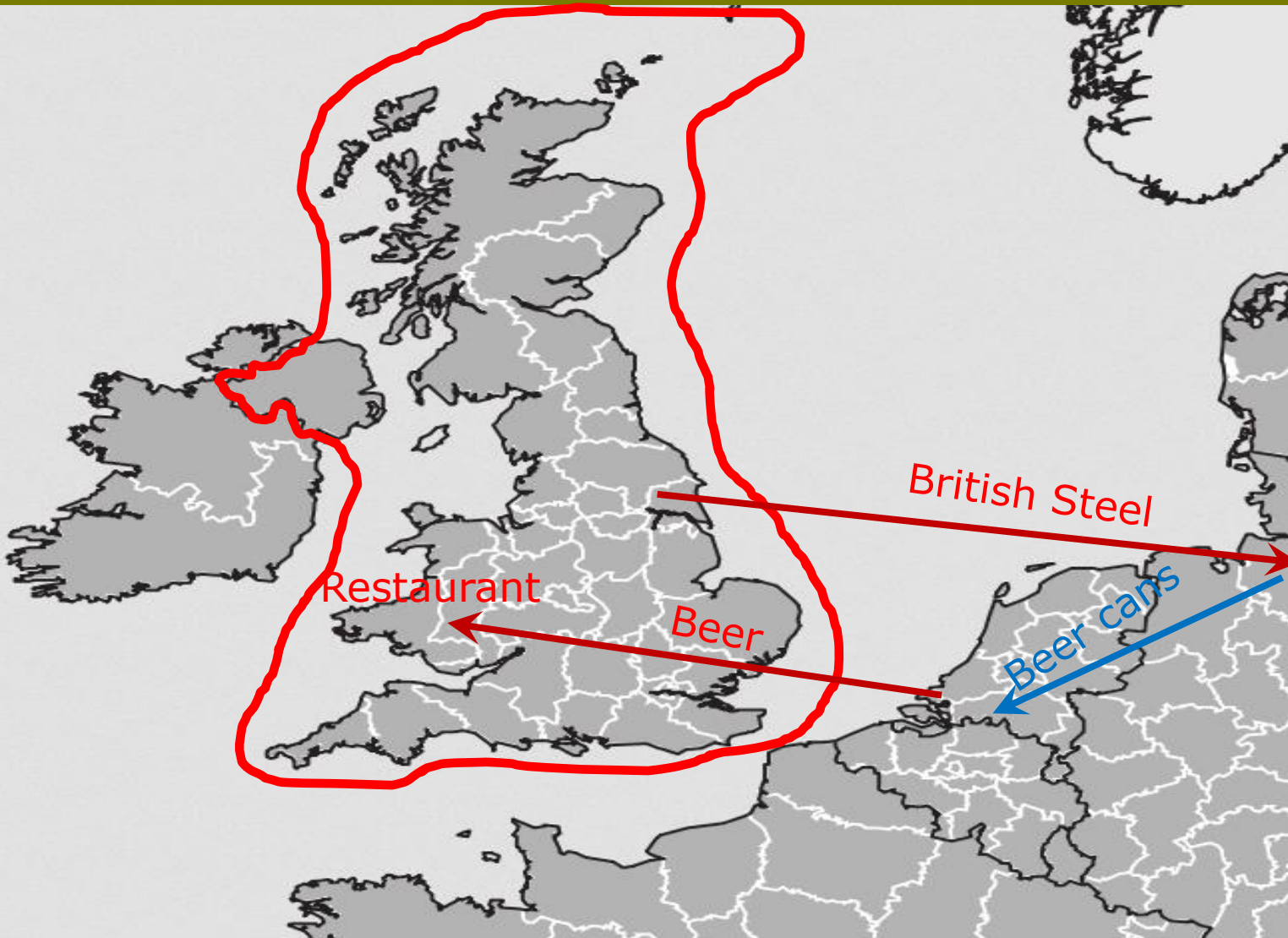




# Exposure analysis versus Regional and sectoral production cost analysis of Brexit



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Scenario production costs analysis:

Barriers (non tariff and tariff) to trade following the red line and based on Dhingra et al. (2017).

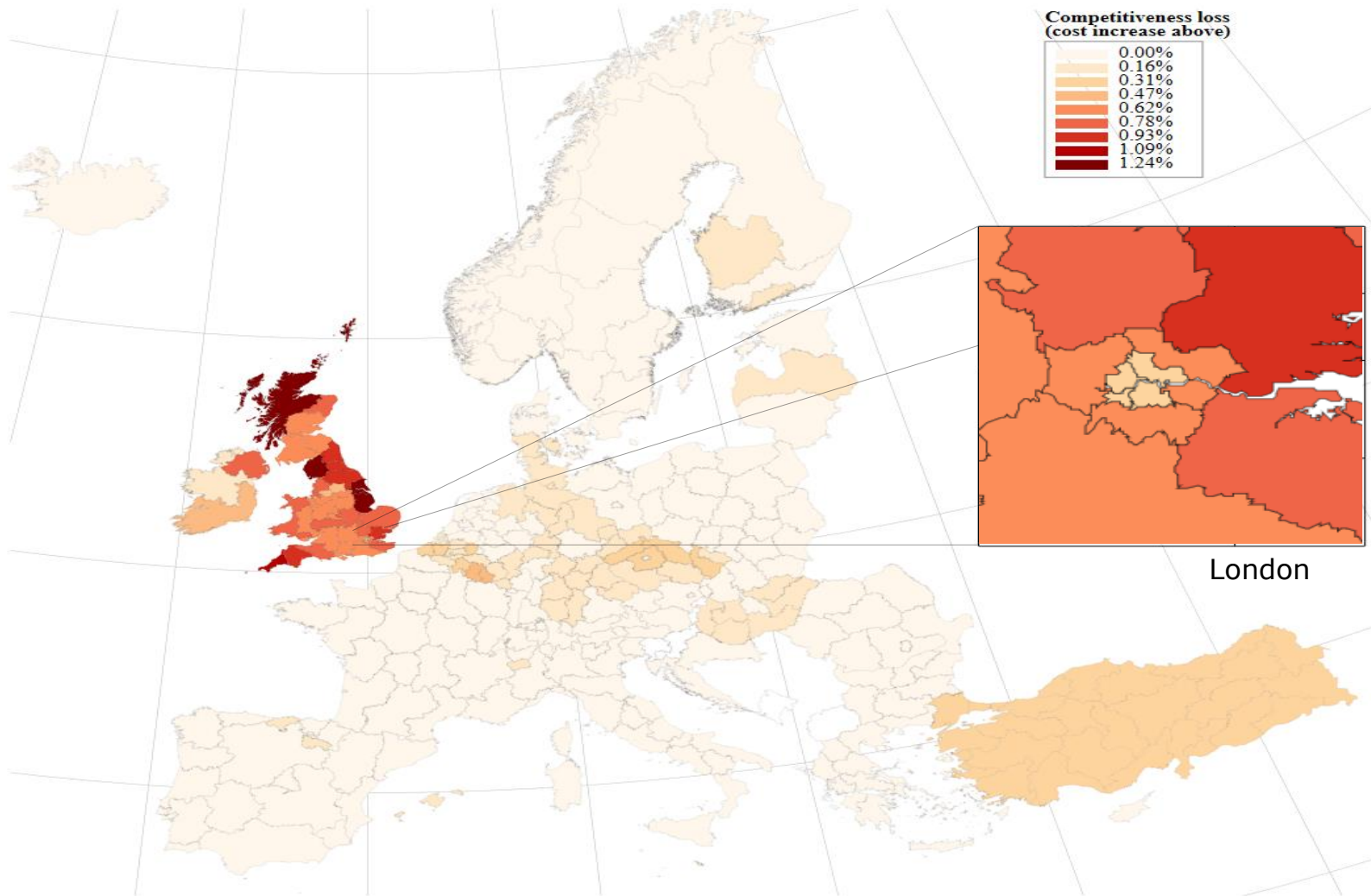
Interregional Cost chain price-model to determine the effect on the costs:

- We use measure of interregional dependence introduced by Johnson and Noguera (JIntE, 2012)
- Data: Regionally disaggregated global input-output tables for **2013**

# Production cost increase



## Brexit loss in competitiveness by NUTS 2 regions



### production cost increase:

- Large regional variation in UK:
- Minimum of 0.46% (Inner London)
  - Maximum of 1.33% (Highlands and Islands)
- Europe's manufacturing core in Belgium, Germany, Czech and Hungary (car manufacturing) takes a harder hit

### Reason for regional variation:

- Production structure (indirect dependence\exposure to trade with the continent)
- Sector composition (higher impact on agriculture and manufacturing than on services)



# Region and sector specific production cost increases (preliminary results – additional to tariffs)



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	UKC2 Northumberland and Tyne and Wear	UKD3 Greater Manchester	UKD7 Merseyside	UKE4 West Yorkshire
Crop and animal production, hunting and related service activities	5,9%	3,5%	5,1%	4,2%
Forestry and logging	4,0%	2,7%	2,9%	3,3%
Printing and reproduction of recorded media	3,1%	2,2%	2,0%	2,4%
Mining of coal and lignite	5,6%	2,2%	2,5%	2,7%
Fishing and aquaculture	3,3%	2,2%	2,4%	2,7%
Manufacture of wood and of products of wood and cork, except furniture; manufa	4,0%	1,9%	2,2%	2,2%
Manufacture of food products	2,4%	1,9%	3,2%	2,0%
Manufacture of textiles	2,6%	1,8%	2,0%	2,1%
Manufacture of chemicals and chemical products	2,5%	1,7%	1,7%	2,0%
Manufacture of paper and paper products	4,9%	1,3%	1,4%	1,7%
Manufacture of machinery and equipment n.e.c.	1,8%	1,2%	1,2%	1,5%
Manufacture of electrical equipment	1,7%	1,2%	1,1%	1,3%
Manufacture of basic metals	1,8%	1,1%	1,4%	1,3%
Manufacture of coke and refined petroleum products	1,9%	1,1%	1,7%	1,3%
Manufacture of other non-metallic mineral products	1,7%	1,1%	0,9%	1,2%
Manufacture of computer, electronic and optical products	1,6%	1,0%	1,0%	1,2%
Manufacture of fabricated metal products, except machinery and equipment	1,4%	1,0%	0,9%	1,1%
Manufacture of basic pharmaceutical products and pharmaceutical preparations	1,4%	1,0%	0,9%	1,1%
Manufacture of motor vehicles, trailers and semi-trailers	1,4%	0,9%	0,8%	1,0%
Sewerage	1,2%	0,8%	0,6%	0,9%
Manufacture of furniture	1,2%	0,8%	0,8%	0,9%
Repair and installation of machinery and equipment	1,8%	0,8%	0,8%	0,9%
Warehousing and support activities for transportation	1,1%	0,7%	0,6%	0,8%
Water collection, treatment and supply	1,0%	0,6%	0,5%	0,9%
Manufacture of other transport equipment	1,0%	0,6%	0,7%	0,7%
Electricity, gas, steam and air conditioning supply	0,9%	0,6%	0,7%	0,7%
Wholesale and retail trade and repair of motor vehicles and motorcycles	1,0%	0,6%	0,9%	0,7%
Manufacture of rubber and plastic products	0,8%	0,6%	0,4%	0,6%
Average regional cost Increase	1,00%	0,48%	0,85%	0,54%

# Region and sector specific production cost increases (preliminary results – continued – **additional to tariffs**)



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	UKC2 Northumberland and Tyne and Wear	UKD3 Greater Manchester	UKD7 Merseyside	UKE4 West Yorkshire
Crop and animal production, hunting and related service activities	5,9%	3,5%	5,1%	4,2%
Water transport	0,8%	0,5%	0,5%	0,5%
Publishing activities	0,7%	0,5%	0,4%	0,5%
Activities auxiliary to financial services and insurance activities	0,7%	0,5%	0,4%	0,5%
Construction of buildings	1,0%	0,4%	0,5%	0,5%
Motion picture, video and television programme production, sound recording and	0,7%	0,4%	0,3%	0,5%
Retail trade, except of motor vehicles and motorcycles	0,9%	0,4%	0,5%	0,5%
Wholesale trade, except of motor vehicles and motorcycles	0,6%	0,4%	0,5%	0,5%
Postal and courier activities	0,9%	0,4%	0,4%	0,5%
Computer programming, consultancy and related activities	0,6%	0,4%	0,4%	0,4%
Air transport	0,6%	0,4%	0,5%	0,4%
Architectural and engineering activities; technical testing and analysis	0,4%	0,3%	0,5%	0,4%
Legal and accounting activities	0,6%	0,3%	0,3%	0,3%
Financial service activities, except insurance and pension funding	0,5%	0,3%	0,3%	0,4%
Food and beverage service activities	0,5%	0,3%	0,3%	0,4%
Telecommunications	0,5%	0,3%	0,3%	0,4%
Land transport and transport via pipelines	0,5%	0,3%	0,3%	0,4%
Other professional, scientific and technical activities	0,5%	0,3%	0,3%	0,4%
Insurance, reinsurance and pension funding, except compulsory social security	0,4%	0,3%	0,3%	0,3%
Advertising and market research	0,5%	0,3%	0,2%	0,3%
Security and investigation activities	0,4%	0,3%	0,3%	0,3%
Scientific research and development	0,4%	0,2%	0,2%	0,3%
Real estate activities	0,6%	0,2%	0,3%	0,3%
Human health activities	0,3%	0,2%	0,2%	0,3%
Rental and leasing activities	0,3%	0,2%	0,3%	0,2%
Travel agency, tour operator and other reservation service and related activities	0,4%	0,2%	0,2%	0,3%
Residential care activities	0,4%	0,2%	0,2%	0,2%
Education	0,4%	0,2%	0,2%	0,2%
Public administration and defence; compulsory social security	0,5%	0,2%	0,2%	0,2%
Sports activities and amusement and recreation activities	0,3%	0,2%	0,2%	0,2%

# Performance important sectors

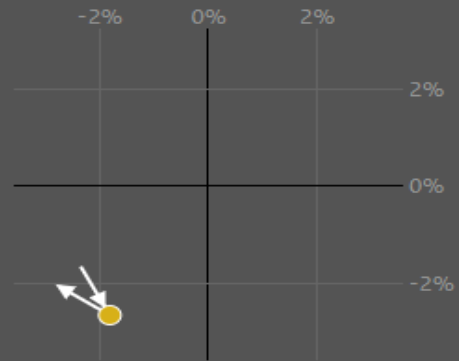


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## Manchester (Greater Manchester)

### HIGHTECH

Structural growth -1.815 %  
Demand determined growth (relative) -2.654 %  
Demand determined growth (absolute) -1.382 %  
Growth over time depicted by two arrows



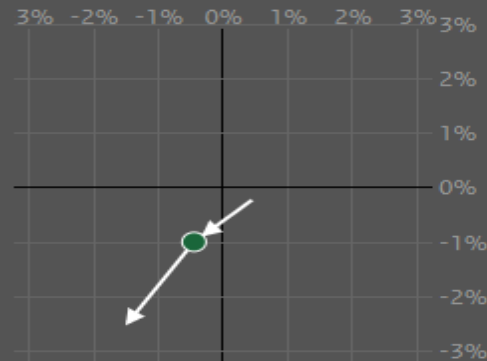
### Hightech:

- Long trend in losing competition against competitors

## Liverpool (Merseyside)

### BUSINESS SERVICES

Structural growth -0.45 %  
Demand determined growth (relative) -0.995 %  
Demand determined growth (absolute) 2.803 %  
Growth over time depicted by two arrows



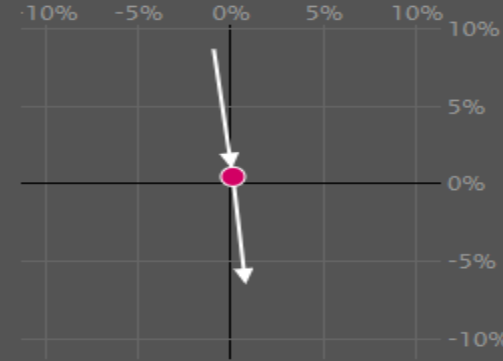
### Business services:

- Losing ground to competitors
- Declining demand in sales markets

## Leeds (West Yorkshire)

### FINANCIAL SERVICES

Structural growth 0.103 %  
Demand determined growth (relative) 0.475 %  
Demand determined growth (absolute) 4.634 %  
Growth over time depicted by two arrows



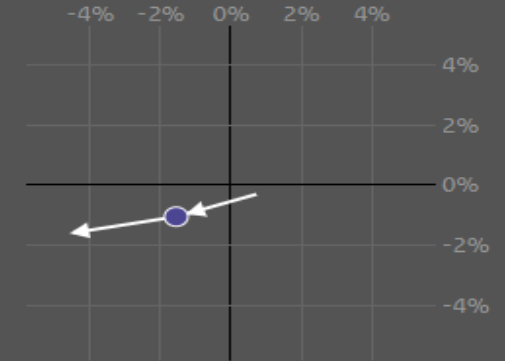
### Financial Services:

- Reinventing itself after the crisis.
- Moving to structural growth

## Newcastle (Northumberland and Tyne and Wear)

### MATERIALS

Structural growth -1.555 %  
Demand determined growth (relative) -1.043 %  
Demand determined growth (absolute) 0.69 %  
Growth over time depicted by two arrows



### Materials:

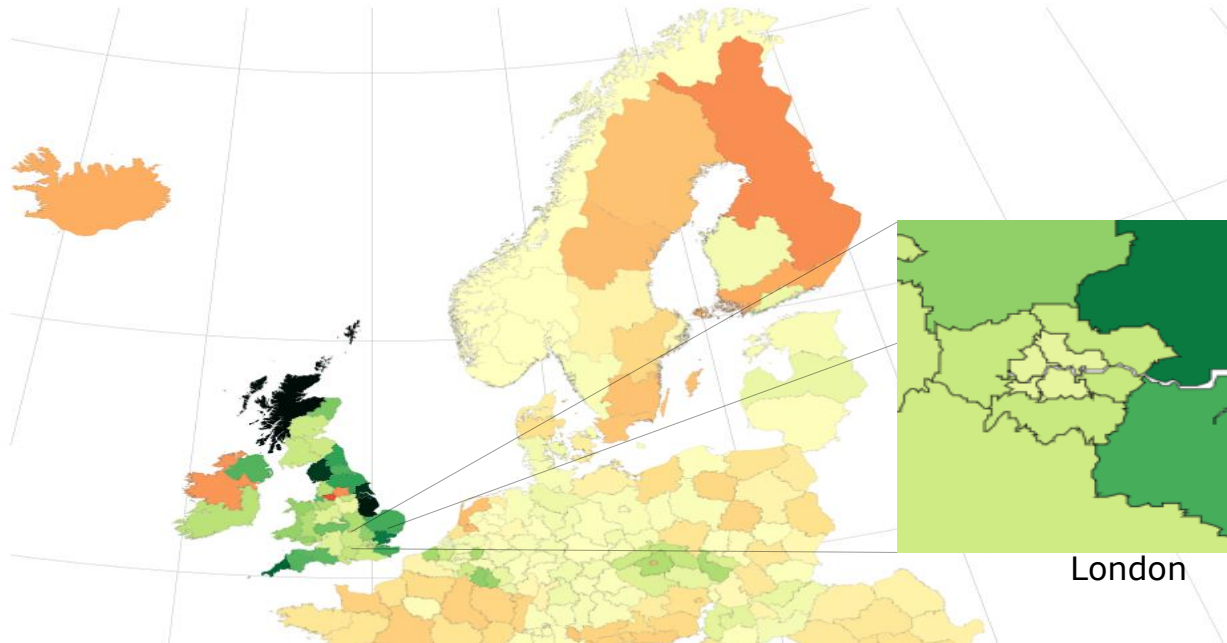
- Losing ground to competitors.

# Competitiveness losses and gains

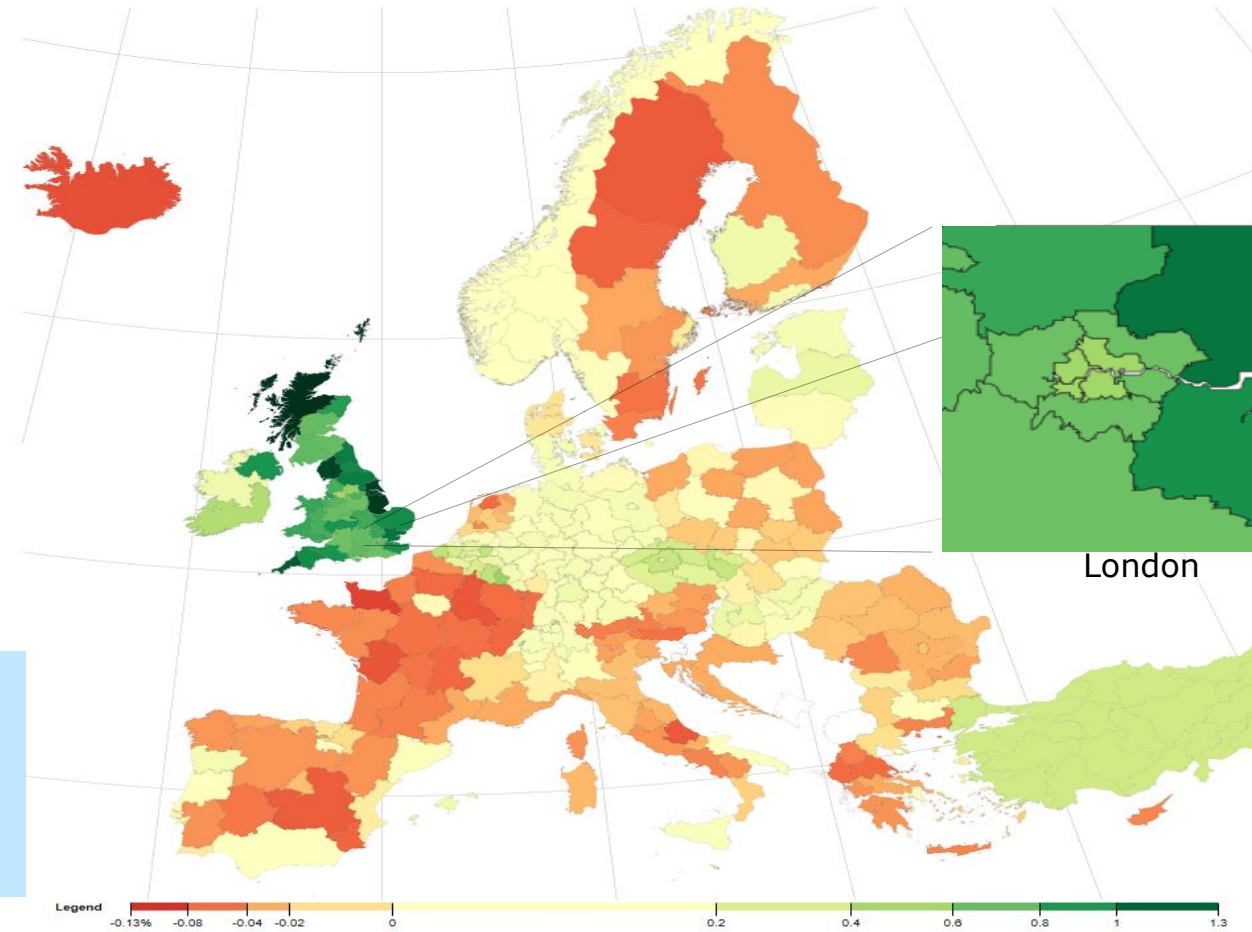


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## Brexit loss in competitiveness by NUTS 2 regions



## Brexit loss in International competitiveness by NUTS 2 regions



- **Regional competition (cost increase relative to competitors):**
- Manchester & Leeds firms win, London not
- Because of the international component in competition
- Substantial Loss in competitiveness, also for London, especially international

Legend -0.13% -0.08 -0.04 -0.02 0 0.1 0.2 0.3 0.4 0.5 0.7

Legend -0.13% -0.08 -0.04 -0.02 0 0.2 0.4 0.6 0.8 1 1.3

# Performance important sectors



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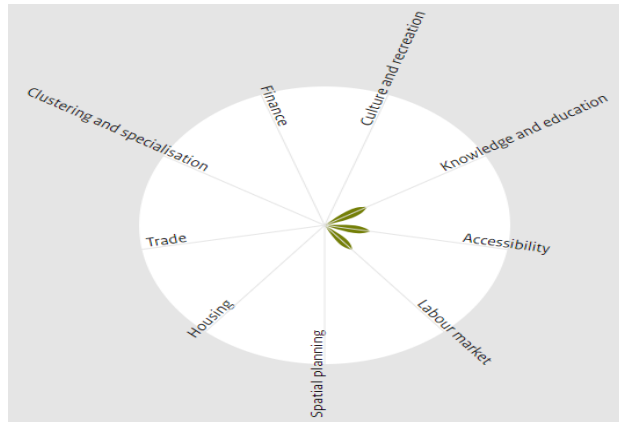
## Manchester (Greater Manchester)



### Hightech:

- Knowledge and education
- Labor market

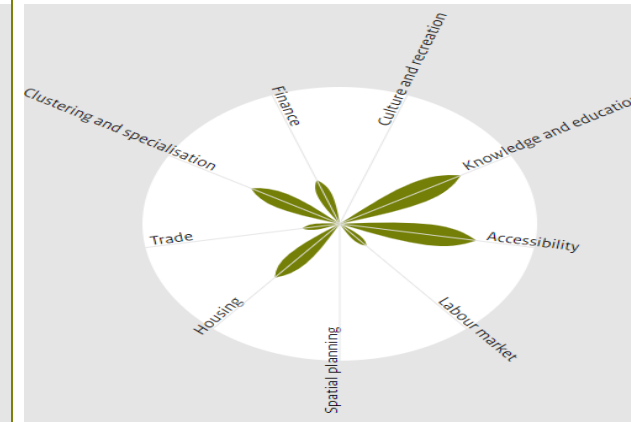
## Liverpool (Merseyside)



### Business services:

- Knowledge and education
- Labor market
- Accessibility

## Leeds (West Yorkshire)



### Financial Services:

- Knowledge and education
- Accessibility
- Housing
- Specialisation
- Finance
- Labor market
- Trade

## Newcastle (Northumberland and Tyne and Wear)



### Materials:

- Housing
- Culture and recreation
- Knowledge and education





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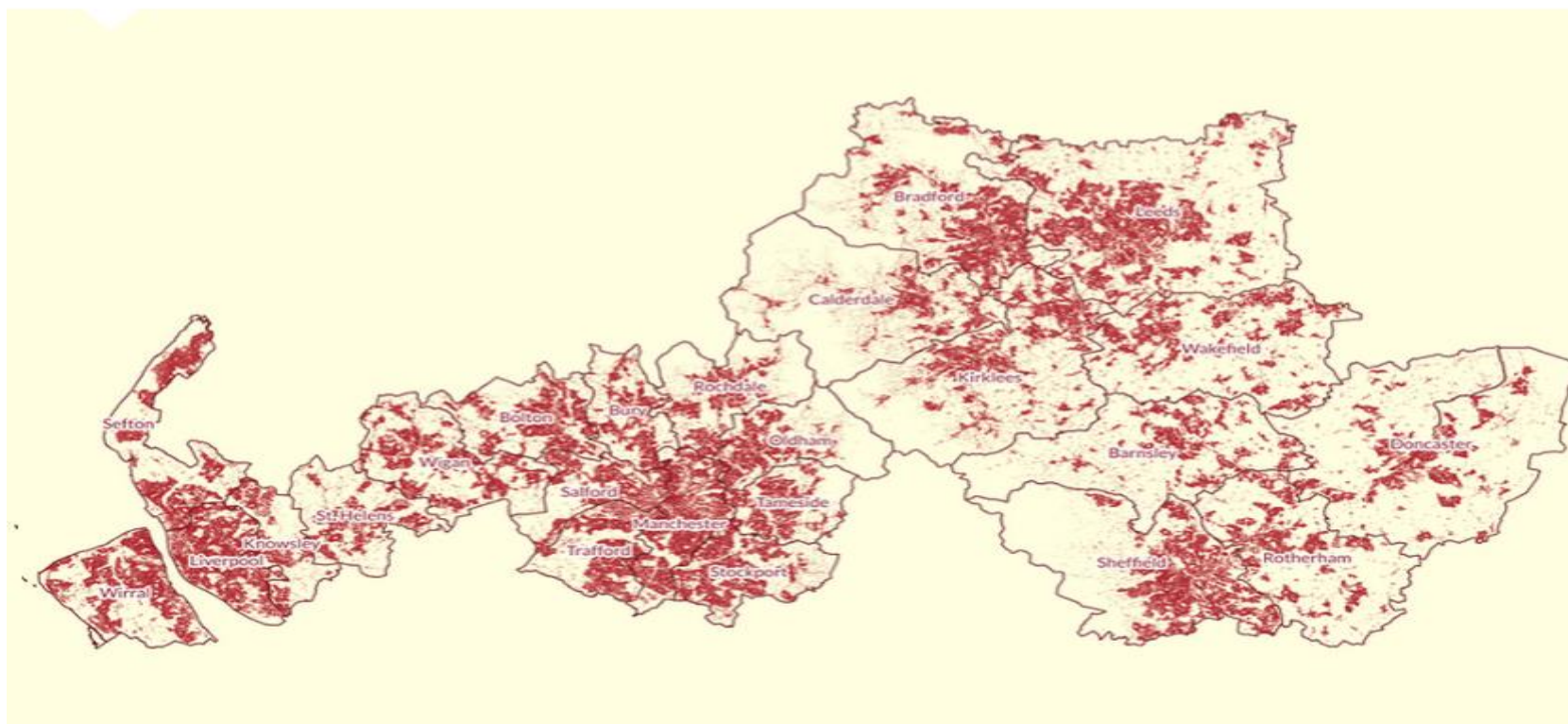
SKYLINES

HISTORY

4 hours ago

# How did the north of England end up with a single urban zone stretching from Liverpool to Hull?

By Stephen Caunce



## Editor's Pick



How far will people walk for public transport – and how close should stops be?

TRANSPORT IN THEORY



In London, "regeneration" all too often means "social cleansing"

POLITICS HOUSING



The UK's hub airport isn't London Heathrow. It's Amsterdam Schiphol

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## Session 2: Preparing the North

**Professor Raquel Ortega-Argiles**, The University of Birmingham (Chair)

**Richard Corbett**, MEP for Yorkshire and the Humber, and Leader of the UK Labour Party in the European Parliament

**Professor Anand Menon**, Director of UK in a Changing Europe

**Katie Schmuecker**, Head of Policy at the Joseph Rowntree Foundation

**Luke Raikes**, Senior Research Fellow at IPPR North

**Professor Philip McCann**, University of Sheffield



# What now for the North in a changing Europe?

Dr. Sarah Longlands, Director of IPPR North

Professor Raquel Ortega-Argiles, project leader at City-REDI,  
The University of Birmingham

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