



THE ROLE OF GLOBAL VALUE CHAINS AS A DRIVER OF ECONOMIC GROWTH IN UK REGIONS

Insights into current limitations and innovative solutions

Second Webinar of the Sub-national Statistics Sprint of the United Nations
Network of Economic Statisticians - Improving Data Disaggregation:
Advances in Sub-National Statistical Systems

Juergen AMANN, Peter HORVAT

OECD, Centre for Entrepreneurship, SMEs, Regions and Cities (CFE)

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OECD Project
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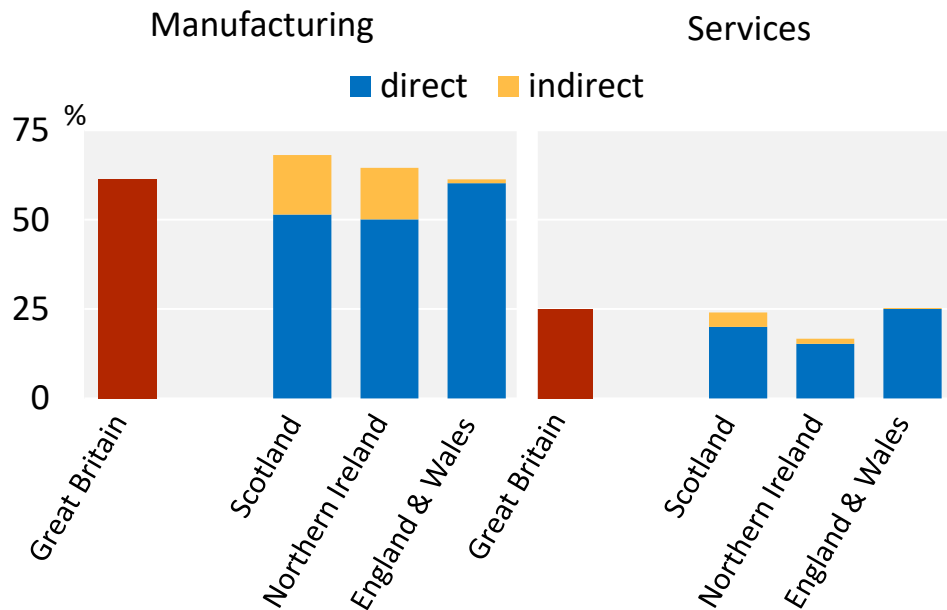
UK Microdata



Why subnational SUT/IOTs?

- **Economic specialisation**
 - Differences in the strength of tradable services and manufacturing
 - Clustering of MNEs
- **Challenges and opportunities from global integration vary**
 - Upgrading through links in local industrial and innovation system
 - Exposure to shocks, also indirect
 - Economic transformations towards net-zero
- **Regionalisation of national statistics**

Value added embodied in gross exports as a share of value added, 2019

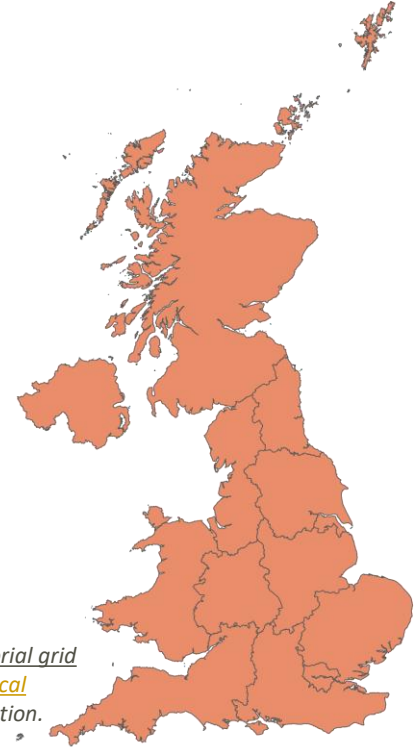


*Note: The domestic value added embodied in exports is calculated separately for each devolved nation, as well as England and Wales and is based on a regional or Multiregional UK table.
Sources: ONS, NISRA and STATISTICS.GOV.SCOT.*

What is the subnational dimension?

TL2: 12 Regions and countries

- **Subnational**
 - 12+1 UK TL2 OECD regions
 - 3 devolved nations of Scotland, Northern Ireland and Wales
 - 9 regions of England
 - 1 Extra-regio
- **Interregional**
 - Each region interacts with other regions and countries
- **“Bottom-up”**
 - Work based on existing UK microdata and experimental statistics

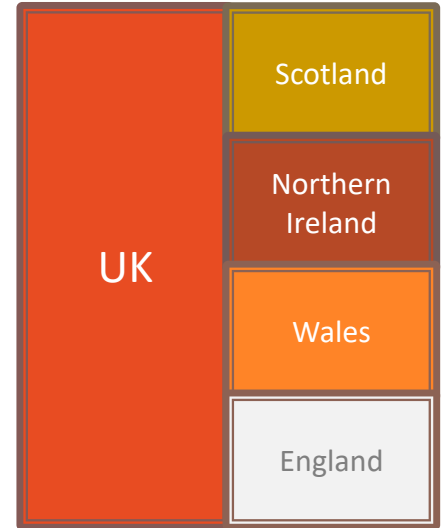


Note: Based on [OECD Territorial grid \(2025\)](#). See [OECD Geographical Definitions](#) for more information.



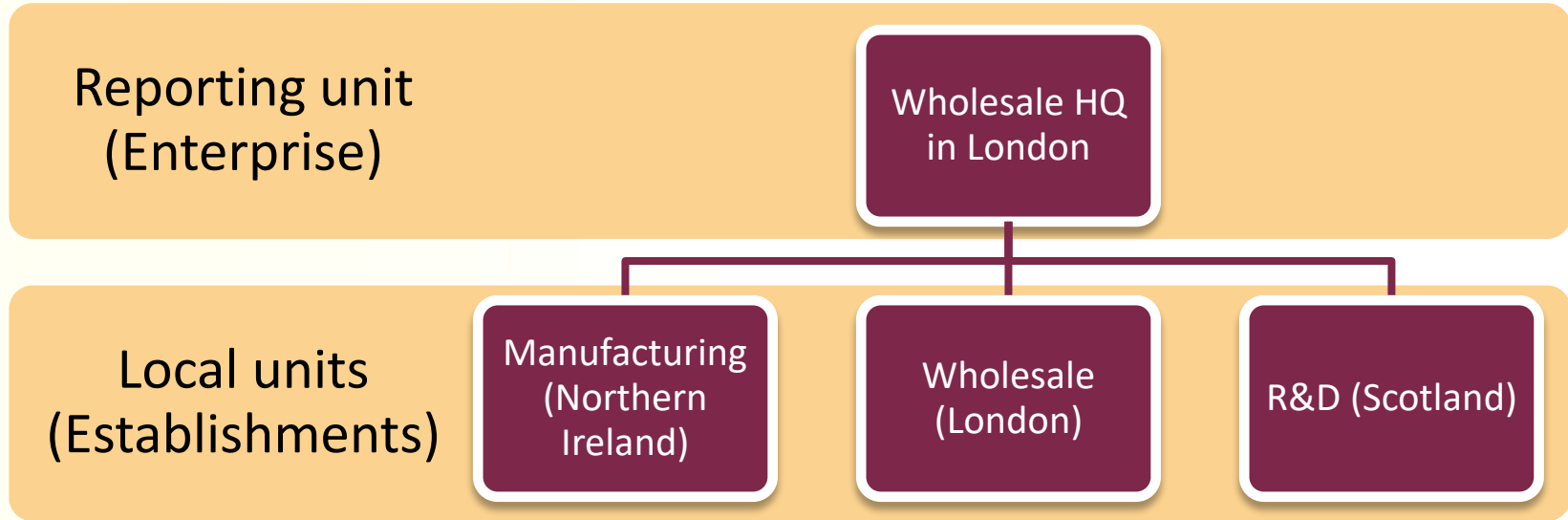
Implementation at a glance

- **Multiple data sources**
 - **Microdata from ONS** and **devolved administration** surveys
 - Microdata on firms, household and government consumption etc. (more than **20 different microdatasets**)
 - Access only through **SRS Safe Rooms** in Newport, UK
- **Compilation of data**
 - **Compile and aggregate** data building blocks by aligning product and industry classifications
 - Uses weighting, imputation, and proportional allocation and experimental data to **fill gaps**





Example 1: Challenges in allocating economic activity - Multiregional enterprises (illustration)





Example 1: Challenges in allocating economic activity - Multiregional enterprises (approaches)

Data	Advantages	Limitations	Examples
Multilocation surveys	Already available	Only employment available	ONS's BRES
Multilocation surveys with wage	Complementary to existing surveys	Proportionality assumptions related to output or investment	Czechia, France
Business census	Provides complete picture of the business economy	Increases burden on businesses and need for estimation in non-census years	Japan, Korea
Establishment-level surveys	Better allocation of economic and regional activity	Increases burden on Local Units	Canada



Example 2: Challenges in measuring interregional trade

Available trade data

	International	Interregional
Goods	Customs data	Models based on freight data
Services	EBOPS (Extended Balance of Payments Services Classification)	Largely unavailable

Experimental approaches

- **Approximate interregional service trade in large (TL2) regions (Tranos et al., 2023)**
 - Links between firm websites (Common Crawl) with firm-level characteristics (Orbis)
- **Interregional trade in goods and services (ONS, 2025)**
 - Combines devolved administration surveys with additional data, such as the Annual Business Survey (ABS), His Majesty's Revenue and Customs (HMRC), Inter-Departmental Business Register (IDBR), transport data, etc.

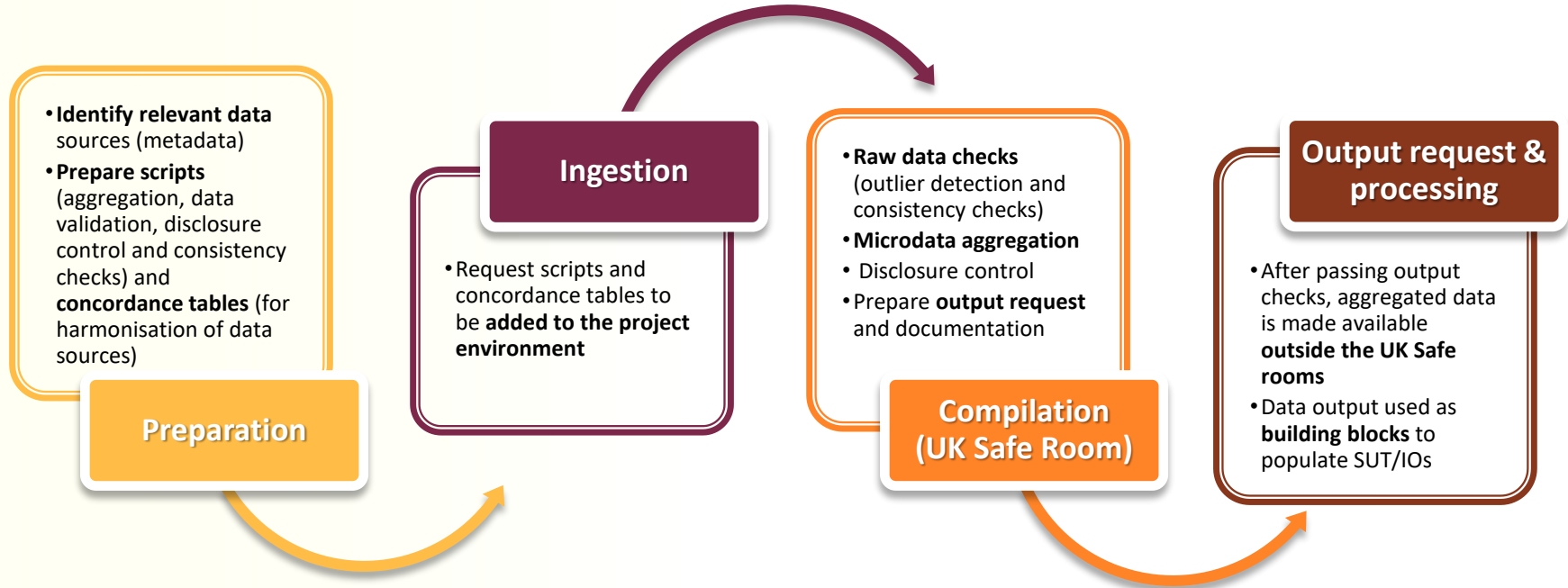


Data access, handling and compliance

- **Access and coordination**
 - Extensive time dedicated to working with **various data** sets, though not at the same level or intensity as national counterparts
 - Considerable **lead time**: From booking to receiving data packages can take multiple weeks
- **Data handling and compliance**
 - Data must be **checked and aggregated efficiently**
 - Outlier detection, disclosure control, and consistency checks for **robust and reliable results**
 - A **flexible production and documentation pipeline** is essential
- **Preparation and tools**
 - Effective **planning and preparation** are critical, including pre-written code to automate processes
 - **Code and data ingestion and open platforms** (e.g. R, Python) were highly beneficial



Stylised production pipeline





Concluding remarks

- **Microdata for better subnational statistics**
 - **Microdata access is invaluable** to help further our understanding and research agenda
 - **Collaborating with NSOs** ensures **consistent methodologies** and supports the **development** of subnational data
- **Data governance and access**
 - **Access procedures** to confidential microdata for research purposes beyond academics
 - **Engagement and flexibility by NSO** acknowledging OECD's status as an international organisation
- **Tools and implementation**
 - Modern **modes of access and storage** facilitate work
 - Possibilities for **scoping and pre-processing** of codes are vital for efficiency and reliability

Thank you



Integration of Regions in Globalisation

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