Developing practical compilation guidance on the production of Data in the National Accounts

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on behalf of the Joint Eurostat-IMF Task Team on

"Measuring Data as an Asset in National Accounts"

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Envisaged structure of the Data handbook

Section 1 - Defining the **conceptual boundary** of data for inclusion in the SNA

Section 2 - Compiling a **nominal estimate** of output and GFCF through SoC method

Section 3 - Compiling **volume estimates**

Section 4 - Compiling **capital stock estimates**

Section 5 - **Overarching measurement and conceptual questions** discussed and explained

Section 6 - Conclusion and condensed list of **recommendations**

Handbook to serve multiple purposes:

- Recommendations at a technical level for **compilers**
- Conceptual background and explanation of methodology for **users**

Main issues and envisaged solutions

Estimating **production of data assets** *at current prices* based on **sum-of-costs** method (as for other intellectual property products produced on own account)

- Entails identifying **occupations** involved in producing data assets and an appropriate **mark-up**

Estimating **production** of data assets *at constant prices* (volume estimates)

- Entails identifying suitable **price indices**

Estimating the value of data assets as **capital stock**

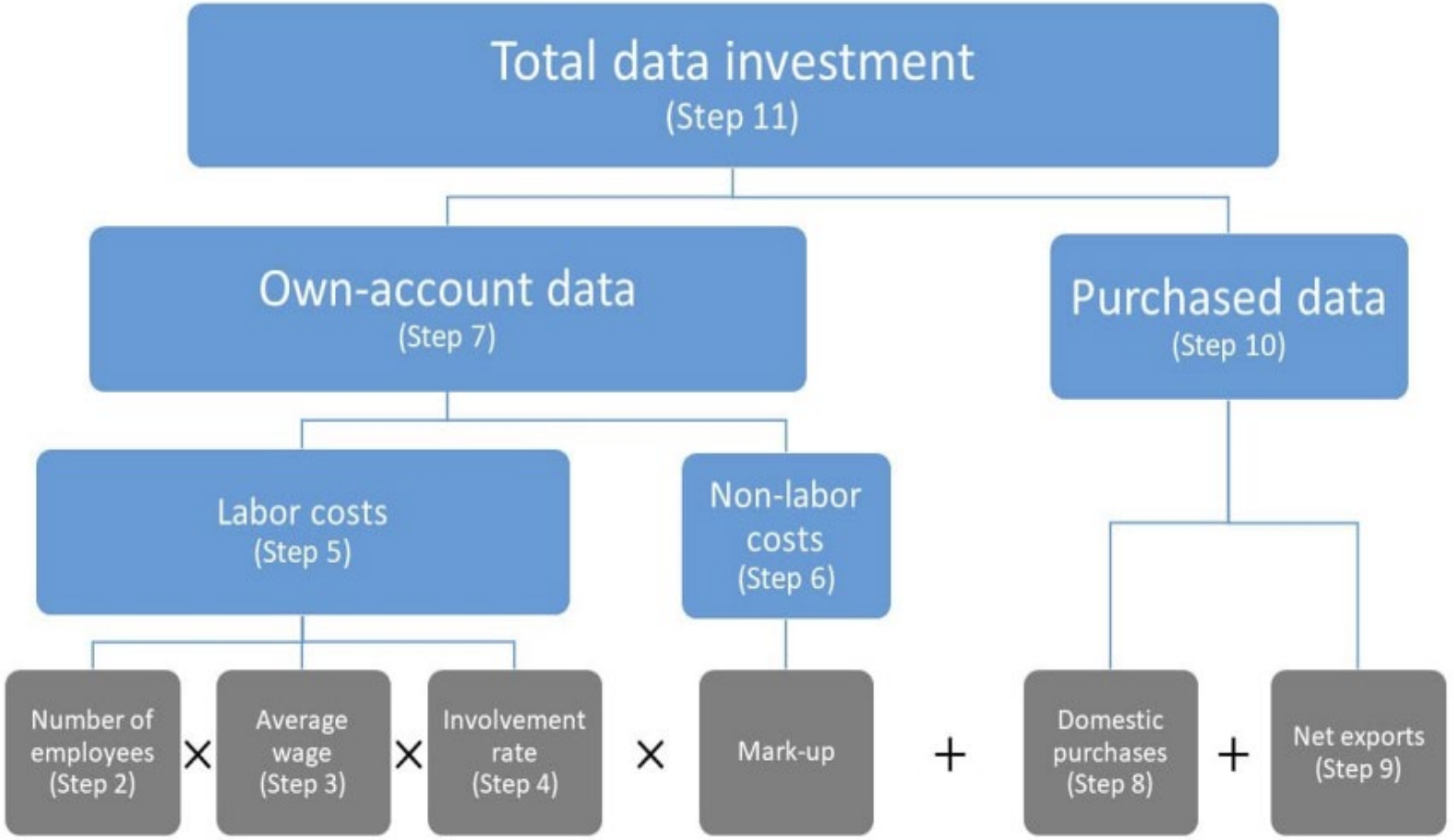
- Entails defining suitable **service lives** and **discount rates** for data assets

Main issue: assumptions required → Approach:

- Recommendations based on experience of countries in the TT
- Definition of **default options**, **ensuring international comparability** in homogeneous regions like the EU. Countries may use more specific information if available (**aspirational recommendations**)

Simple methodology map for nominal estimates

Source data or modelling required for grey cells



Visual courtesy of Destatis

Formula for own-account data

$$C_{i,t} = \alpha \sum \tau_{\omega} W_{\omega,i,t} H_{\omega,i,t}$$

Source: BEA, but adopted by several countries (e.g. CAN, DE, JAP, NL, PAK)

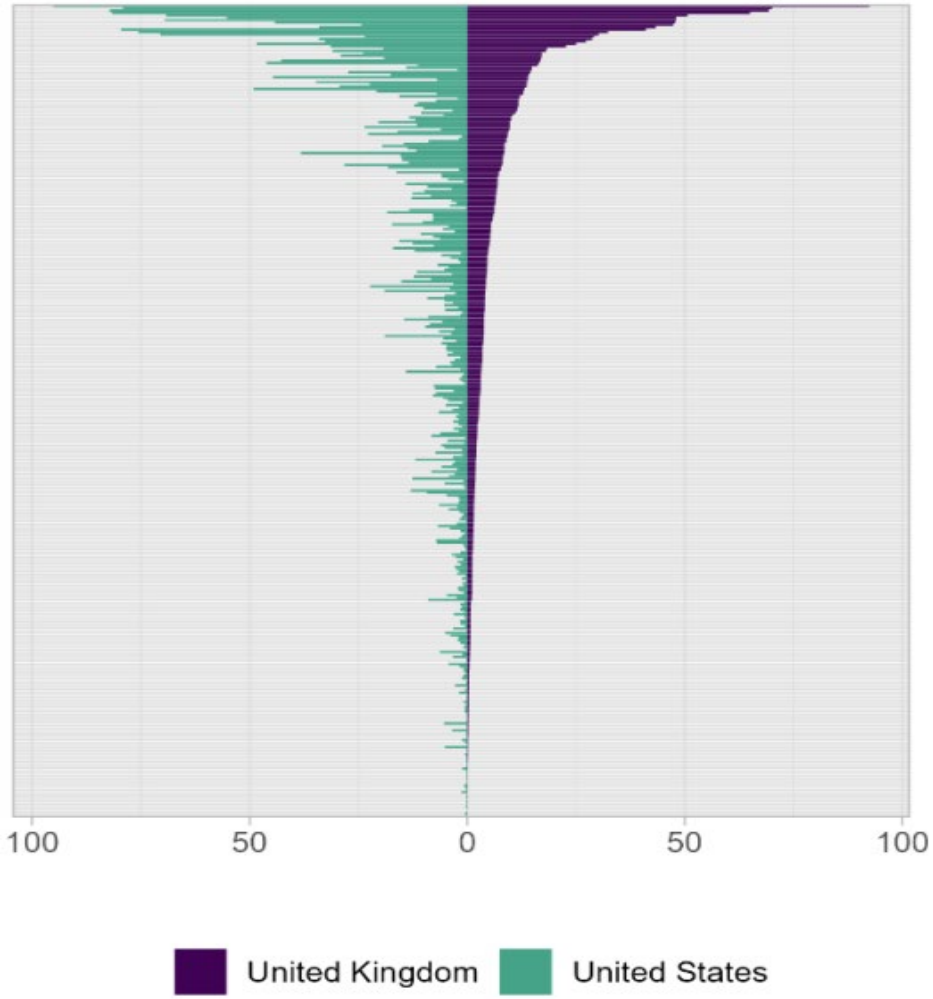
Occupations / Involvement rates

TT surveyed members to derive a list of data-producing **occupations** and their **involvement rates**

Individual lists consolidated to identify occupations consistently identified and those more country-specific

This result will be contrasted with more systematic approach undertaken by those using **online job ads** and **machine learning**

- *(OECD, 2023) What is the role of data in jobs in the United Kingdom, Canada, and the United States? A natural language processing approach*
- *(United States BEA, 2022) Valuing the U.S. Data Economy Using Machine Learning and Online Job Postings*



Data TT - Composition and timeline

13 countries

- Australia, Austria, Canada, Chile, China, Denmark, Germany, Japan, Netherlands, Norway, Pakistan, United Kingdom, United States

4 international organisations

- Eurostat, IMF, OECD, UNSD

Editor: John Mitchell (consultant)

SNA update lead editor and the project manager are closely involved

Thank you
for your attention

European Commission