

Who Benefits from Foreign Trade?

*Production and publication of Trade in Value Added (TiVA) -
indicators as experimental statistics*

Session: 1.1. Improving economic statistics

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Presentation outline

- Background
 - Why trade in value added (TiVA) statistics are important?
 - A couple of key concepts
 - Project outline
- Data infrastructure, method & production process
- Publication
- Results
- Future plans & user feedback
- Summary

Background

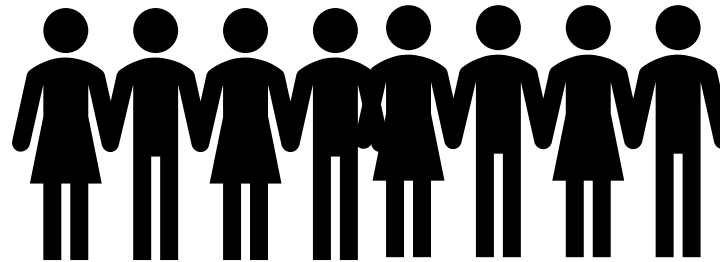
Why trade in value added indicators are important?

What proportion of exports have been produced in Finland?

Where does the Finnish value added end up?

Where do the inputs come from?

Who benefits from foreign trade?

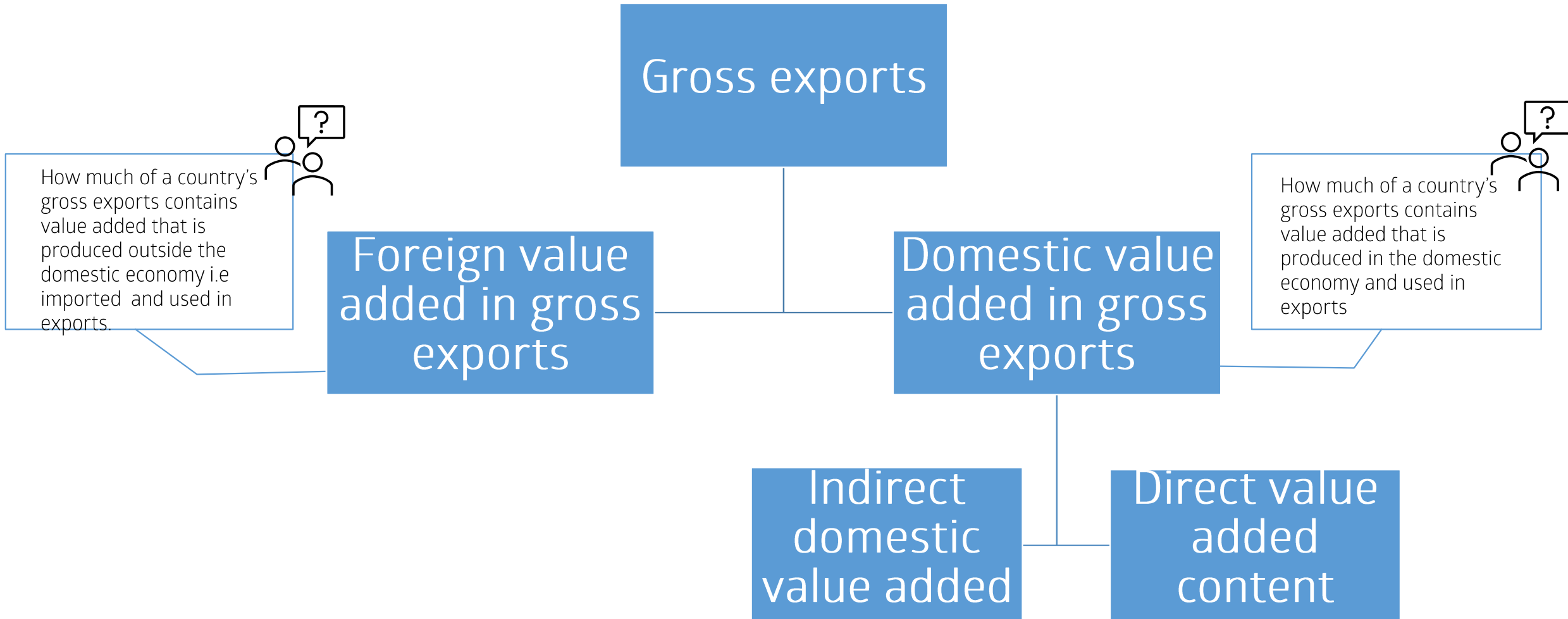


Why trade in value added indicators are important?

- Global value chains and production networks are the standard of modern production
- Existing statistics cannot properly depict modern production arrangements or the occurrences within them
- There is a strong need for faster and more granular information on global value chains, fragmentation of production and the effects on firms, society and people

→ The development project was launched to answer needs of several stakeholders, including policymakers, ministries and analysts

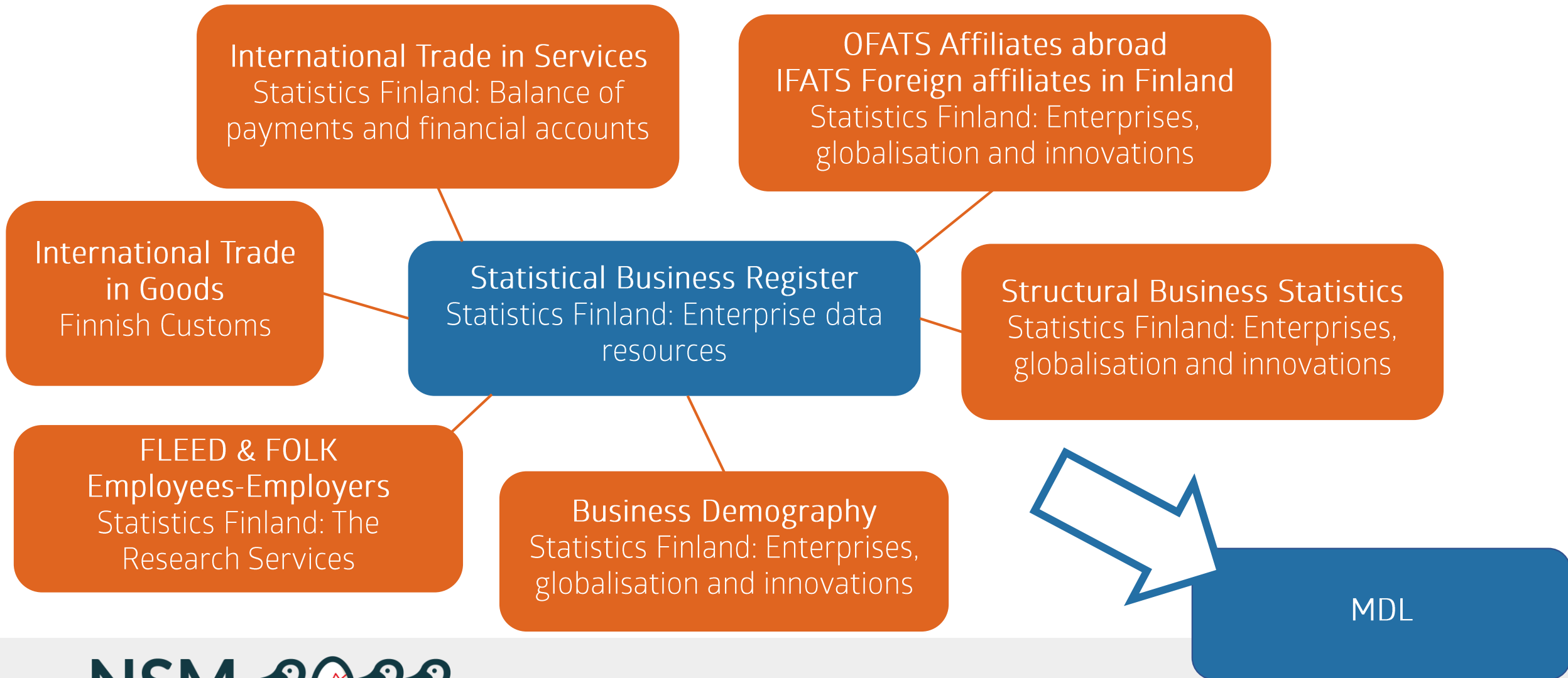
A couple of key concepts



Project outline

- During 2019 and 2020, Statistics Finland worked together with the OECD to develop trade in value added (TiVA) statistics based on the OECD-WTO framework
- The goal of the project was to:
 - Develop a replicable process for producing TiVA indicators in a domestic setting
 - Extend the view of TiVA by adding
 - i) more industries and
 - ii) breakdowns by firm heterogeneity
 - Expand the dimensions of TiVA by adding workforce and wage indicators
 - Reduce the publication lag of TiVA indicators
- The project was co-funded by the Ministry for Foreign Affairs, the Ministry of Economic Affairs and Employment, the Finnish Prime Minister's Office and the Teollisuuden ja Työnantajain Keskusliiton säätiö-foundation

Data infrastructure within StatFin - MDL



Methodology in short

Based on work done
in Statistics Finland

Value added, turnover,
imports, exports,
employment (age,
education) by firm
heterogeneity

Microdata

Supply and Use
tables (SUTs)

Underlying
production
function of the
Finnish economy

Based on coding done in OECD
and aggregated data provided
by Statistics Finland

Business data to
break down
traditional SUTs with
some stylised
assumptions

Extended SUTs

Extended IO
table

Matrix algebra
converting
extended SUTs to
extended IO table

Hummels et al. (2001)
The Nature and
Growth of Vertical
Specialization

TIVA/GVC
indicators

Publication

Publication method – Experimental Statistics

- Trade in value added indicators are published under Statistics Finland's Experimental Statistics section
- Experimental statistics is quite new and rapid way for production of statistics



- Describe new topics



- Utilise new types of data



- Are based on new calculation methods

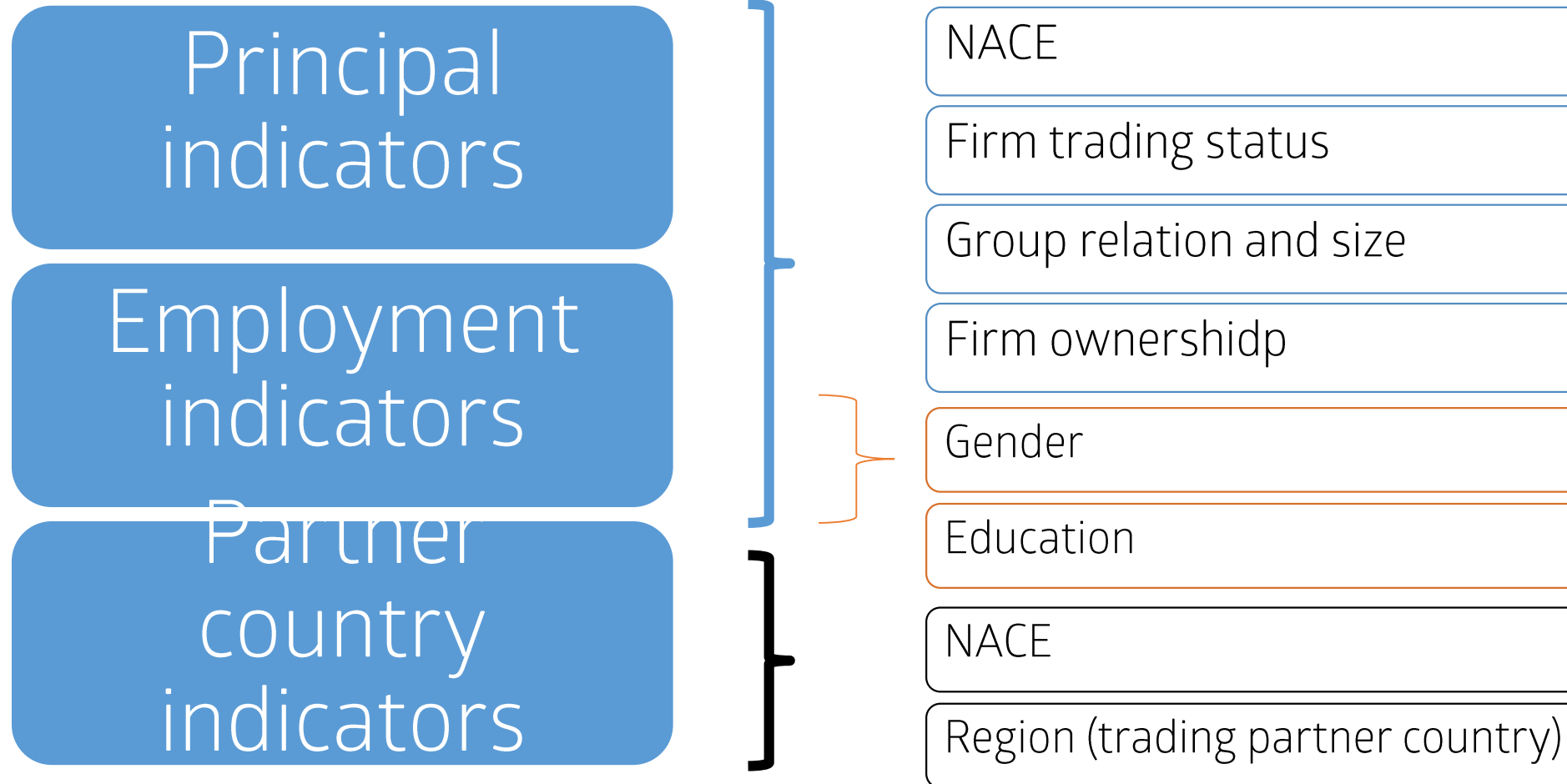


- Are still in the development phase and will be developed together with data users

Publication method – Current publication and database

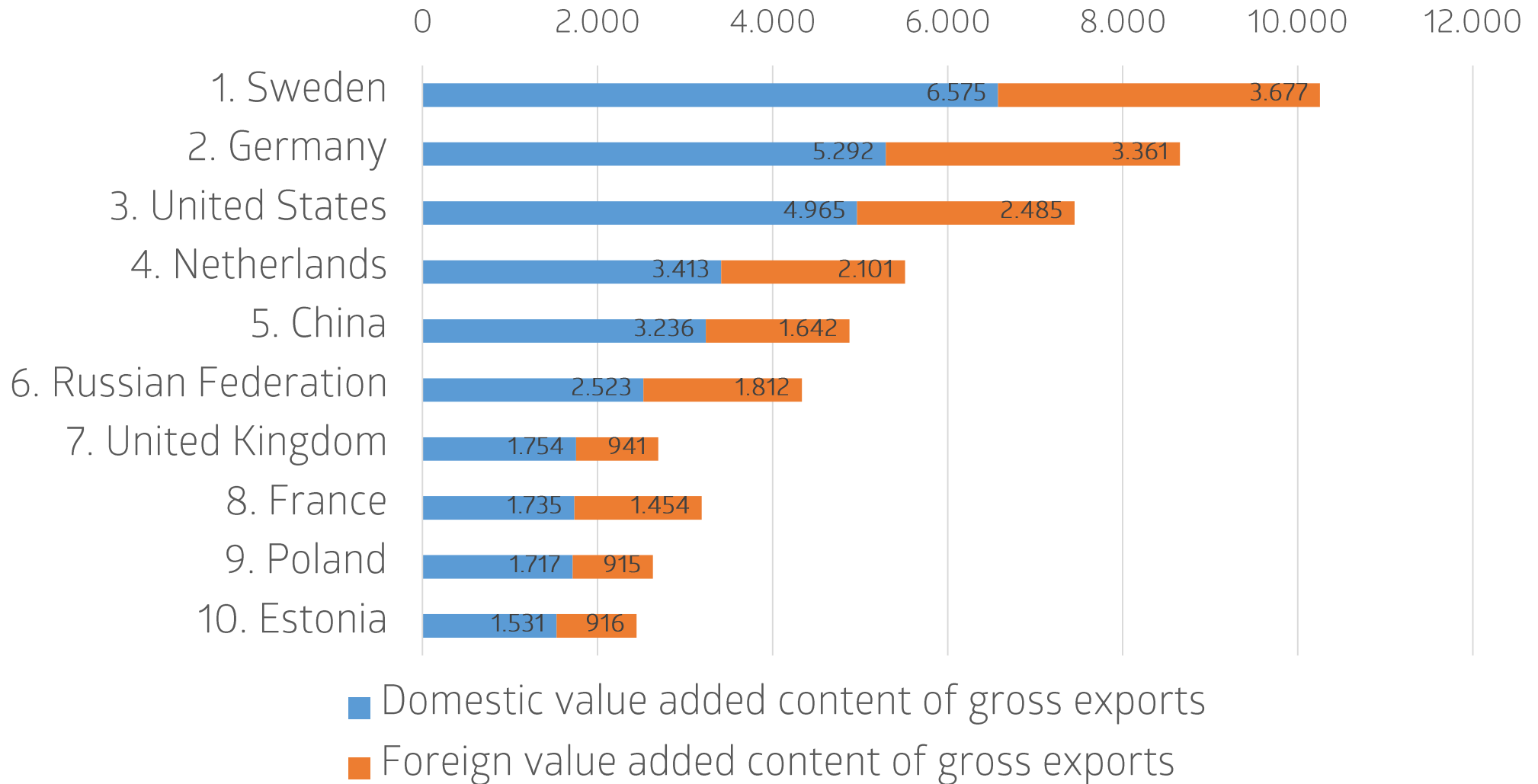
- At the moment publication is available only in Finnish
- An open database on Trade in Value Added data is available in English (PxWeb)
 - https://pxnet2.stat.fi/PXWeb/pxweb/en/Kokeelliset_tilastot/Kokeelliset_tilastot__tiva/
 - [Value added trade principal indicators by firm trading status](#)
 - [Value added trade principal indicators by firm size and group relation](#)
 - [Value added trade employment indicators by firm trading status](#)
 - [Value added trade employment indicators by firm size and group relation](#)
 - [Trade in value added by industry and region](#)
- Data is accessible via an open interface

Three sets of indicators



Results

Finnish gross exports to the top 10 countries by domestic value added in 2020

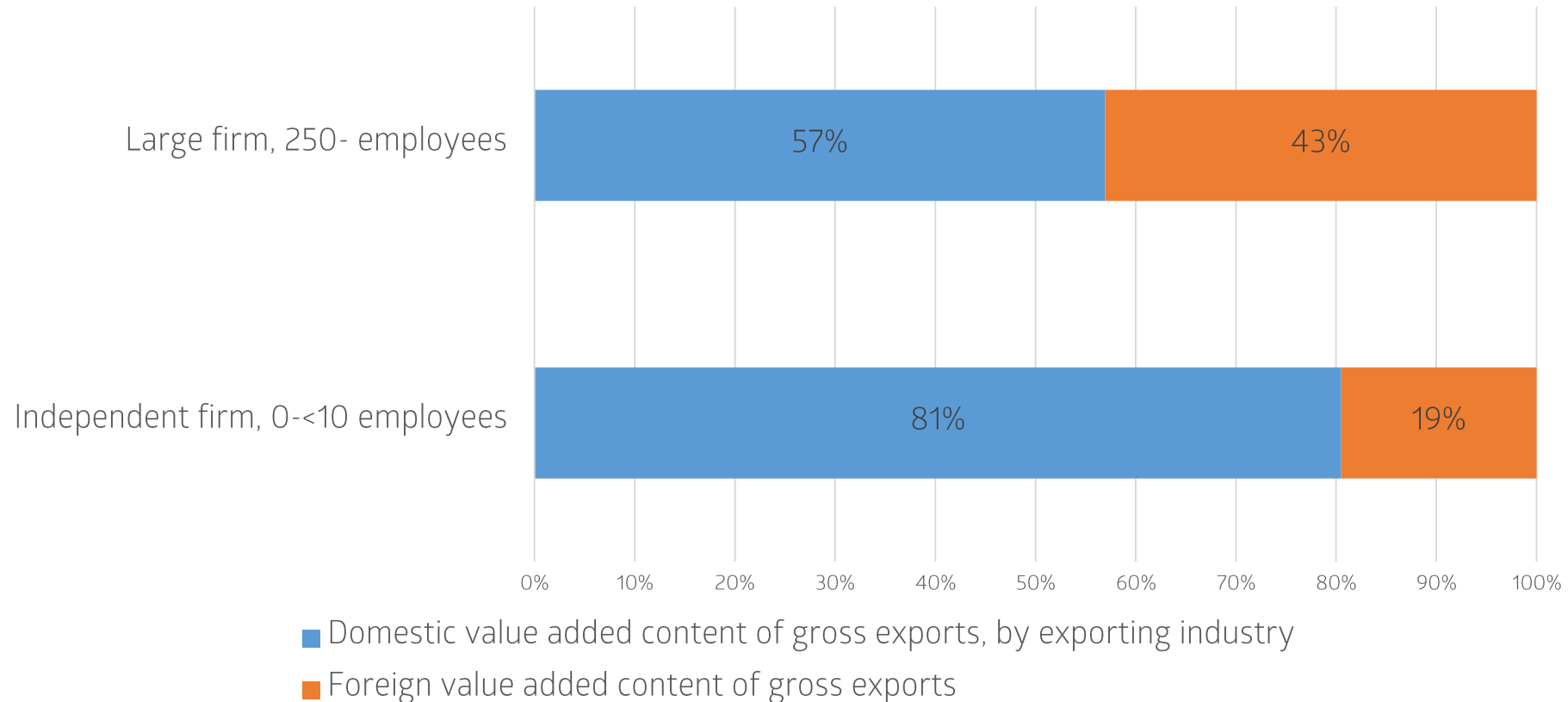


Comparison of enterprise types, 2022

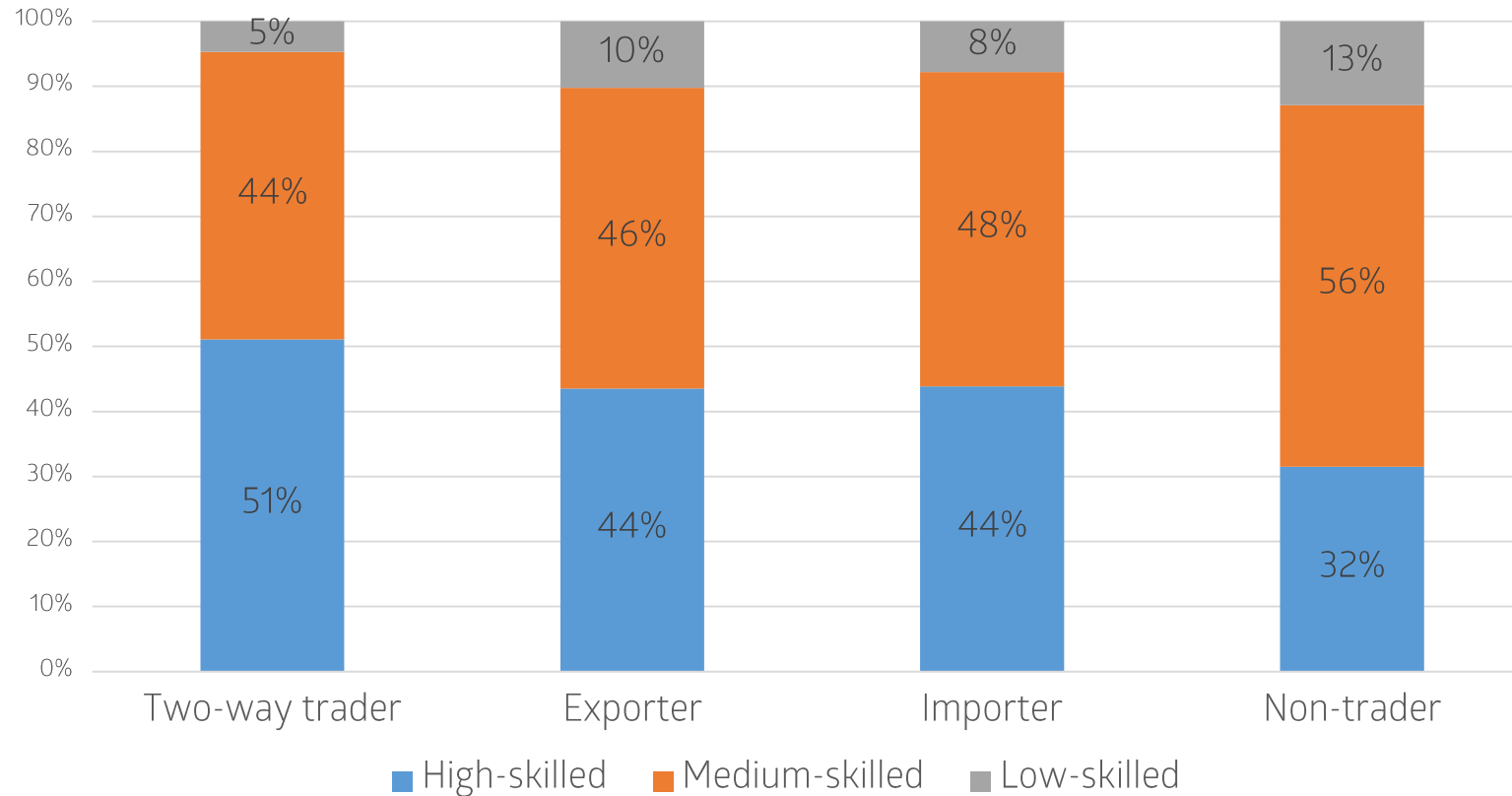
The value (domestic value added) that these companies produce for export, irrespective of who is the exporter

	Gross exports, million EUR	Domestic value added content of gross exports, by source industry, million EUR	Domestic value added content of gross exports, by source industry in relation to gross exports, %
Independent firms, less than 10 employees	1 908	4 844	254%
Large firms, more than 250 employees	45 145	19 511	43 %

Comparison of enterprise types, 2020



Comparison of enterprise types, 2020

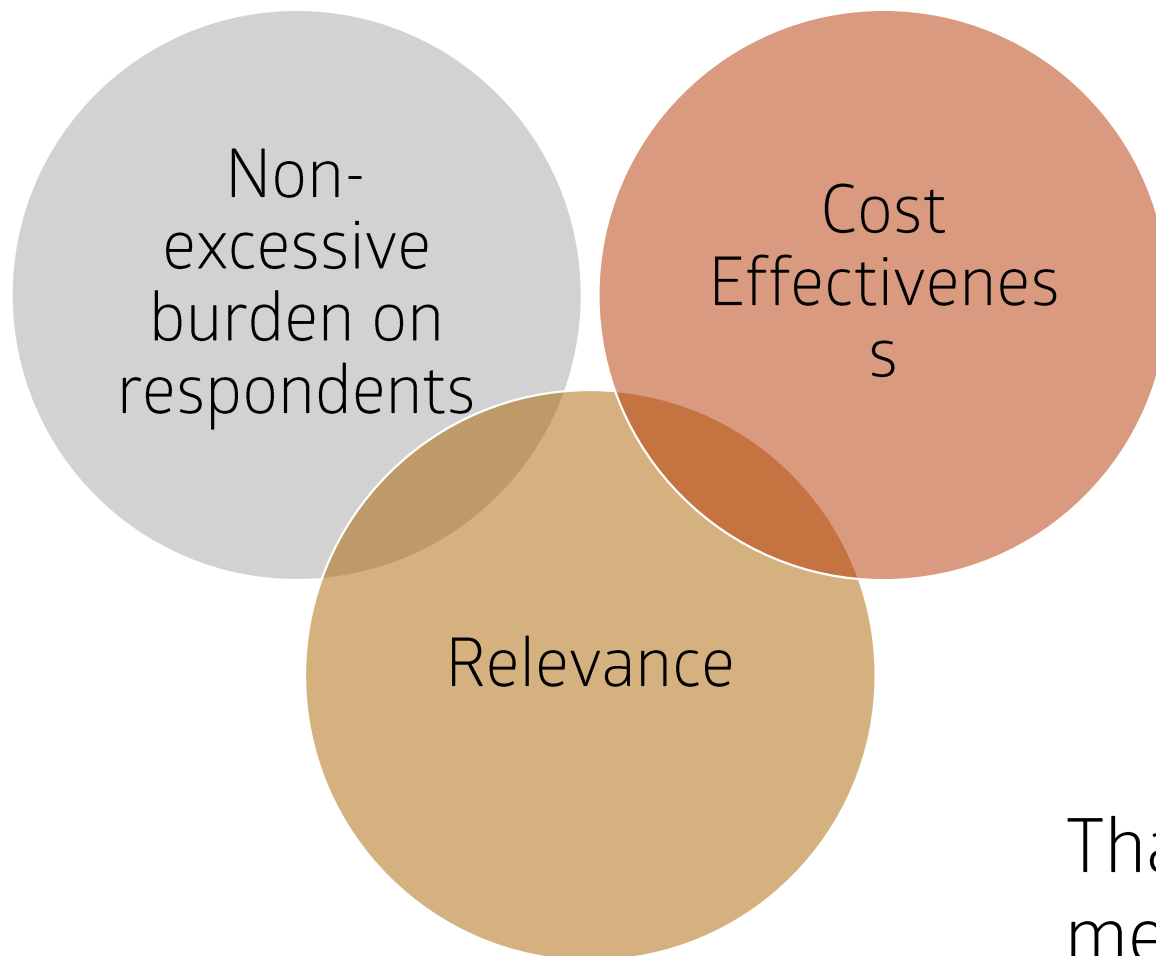


Future plans & user feedback Summary

User needs and future plans

- From Experimental Statistic to Official Statistic → filling transfer requirements
- Publishing extended supply and use table (ESUTs) and/or preliminary supply and use tables?
 - Monitoring how preliminary SUTs compare to the first official release
 - Providing data to researchers (or to all)
- Expanding the number of countries in publication?
- Product level information?
- Decreasing publication lag (T+17 → T+15)
- Increasing impact – how and where?

Main takeaways



Thank you!
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