CompNet
The Competitiveness Research Network

CompNet:

What's new?

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IWH
Chairperson of CompNet

FINPRO III, Rome 8 & 9 June 2023

Jointly organized with Banca d'Italia

o Unbalanced panel of Productivity related indicators now for **23 European countries** and 60 sectors over 1999-2020/21, available annually

o Our data providers (**statistical institutes, central banks**, and **research institutions**) run the same codes on their best existing national datasets

Countries
Belgium, Croatia, Czech Republic, Denmark, Finland, France, Germany, Hungary, Italy, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland
New: Latvia, Malta, UK

Aggregation Levels
Country Macro-Sector Macro-Sector-Size-Class Industry 2-digits NUTS 2
New: Technology

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The traditional CompNet Dataset - Variables

Productivity

Labour productivity

VA and revenue TFP; various estimation techniques

ULC

Firm size

Capital Intensity

Marginal revenue productivity of inputs

Static and dynamic allocative efficiency

Energy cost

Financial

Investment ratio

RoA

Cash holdings

Leverage

Financing gap

Collateral

Equity to Debt

Cash flow

Interest coverage ratio

Trade Credit/Debt

Debt burden

Credit constraint index

Share of "distressed" firms

Trade

% permanent exp.

% sporadic exp.

Export intensity

Characteristics of top exporters

Productivity premium of exporters

Characteristics of firms that export AND import

Exports by destination

Competition

Price-cost margins

Mark Ups –various estimation techniques

Herfindahl index

Concentration of sales in top 10 firms of a sector

Labour

% firms that change employment between t and t+3 (t+1)

Share of high-growth firms

Job creation and job destruction rates

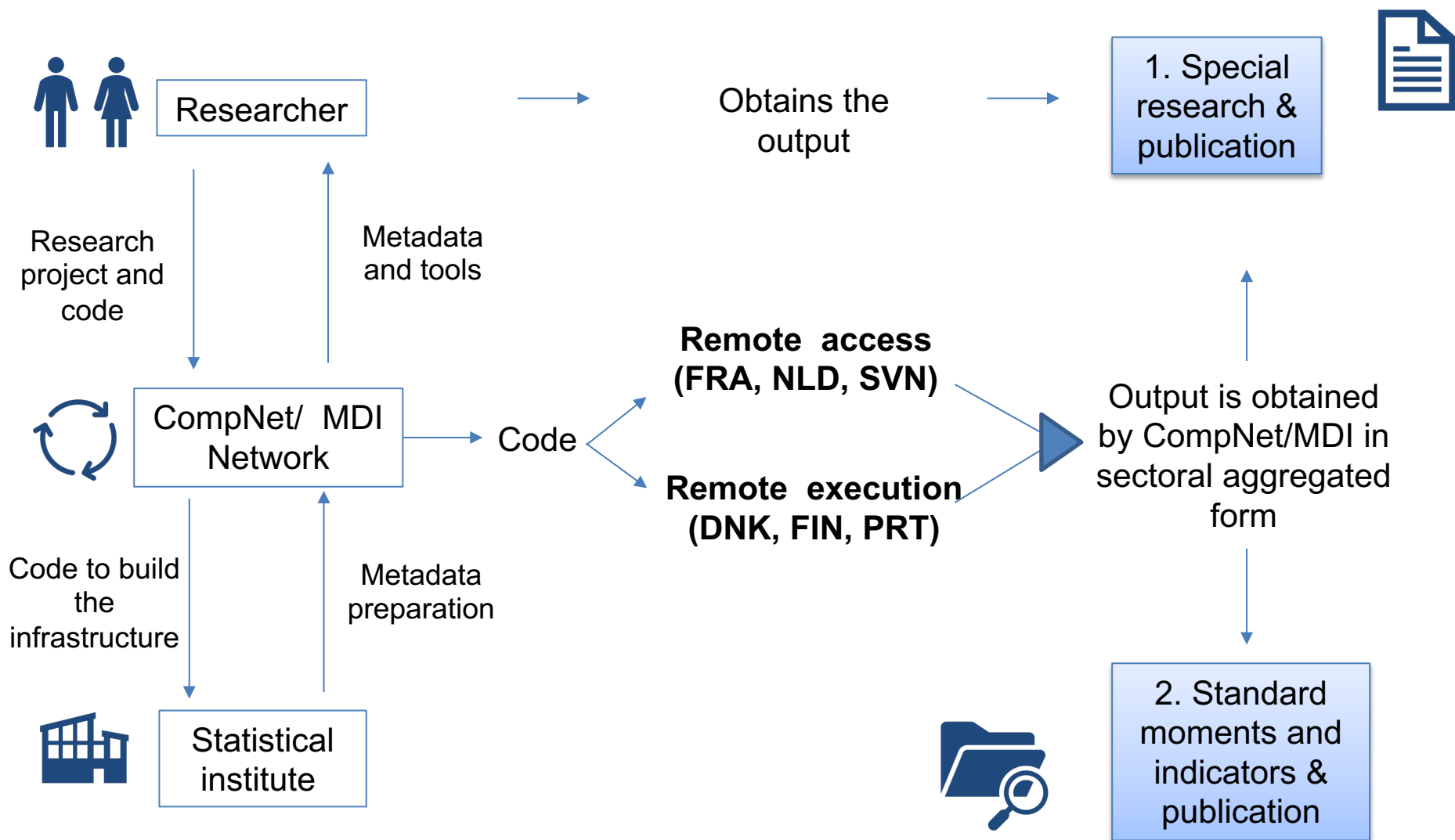Wage premium (proxy for human capital)

Firm entry and exit

Previously we had added
- Zombie firms
- Regional dimension
- Intangibles proxies

In the 9th we are adding
- Business dynamism indicators

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Researcher

Obtains the output

1. Special research & publication

Research project and code

Metadata and tools

CompNet/ MDI Network

Code

Remote access (FRA, NLD, SVN)

Remote execution (DNK, FIN, PRT)

Output is obtained by CompNet/MDI in sectoral aggregated form

Code to build the infrastructure

Metadata preparation

Statistical institute

2. Standard moments and indicators & publication

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3) Research – Ongoing using our datasets

- ***European Business dynamism***

- ***Labor Market power***

- ***Intangible investments and productivity***

➜ Just published in the **JEEA** (with Mark Melitz) on '**EU firm concentration and productivity'**

➜ will publish next month the 2023 CompNet Productivity Report …Reviewing recent trends in competitiveness, productivity, trade, and firm performance

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4) CompNet going forward

We are providing Technical Assistance to EU National Productivity Boards (under a EU Commission grant)

…. to further develop the above two micro-data datasets and promote their use for research and policy analysis (**Ongoing till next year**)

We are teaming up with the CEPR (and their 2000 members) on a Micro Data Initiative

… to improve microdata infrastructure in Europe and its use for productivity analysis (**1st Micro Data Workshop, 15-16 June, Paris**)

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THANKS, AND ENJOY THE CONFERENCE

3) Research - Ongoing

- Research projects:

  - **"European Business dynamism, market power and technology"** Javier Miranda, Matthias Mertens, Sergio Inferrera.

  - **"Labor Market power and Wage Inequality"** Matthias Mertens.

  - **"Input Market Power"** Matthias Mertens, Bernardo Mottironi, Alessandro Zona Mattioli, Filippo di Mauro.

  - **"Productivity and pay"** Paolo Mengano, Matthias Mertens, Tommaso Bighelli.

  - **"Intangible investments and productivity"** Eric Bartelsman, Mirja Hälbig, Alessandro Zona Mattioli.

- Policy output: VOX EU and alike

- The 2023 CompNet Productivity Report (July 2023): Reviewing recent trends in competitiveness, productivity, trade, and firm performance

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MDI motivation - Current status with many hurdles

To do research, a Researcher has to go through:

1. Research proposal
2. Data access procedure
3. NSI technical restrictions
4. Fixed costs of getting to know the data
5. Decisions on data handling (e.g., outliers treatment)
6. Programming the code
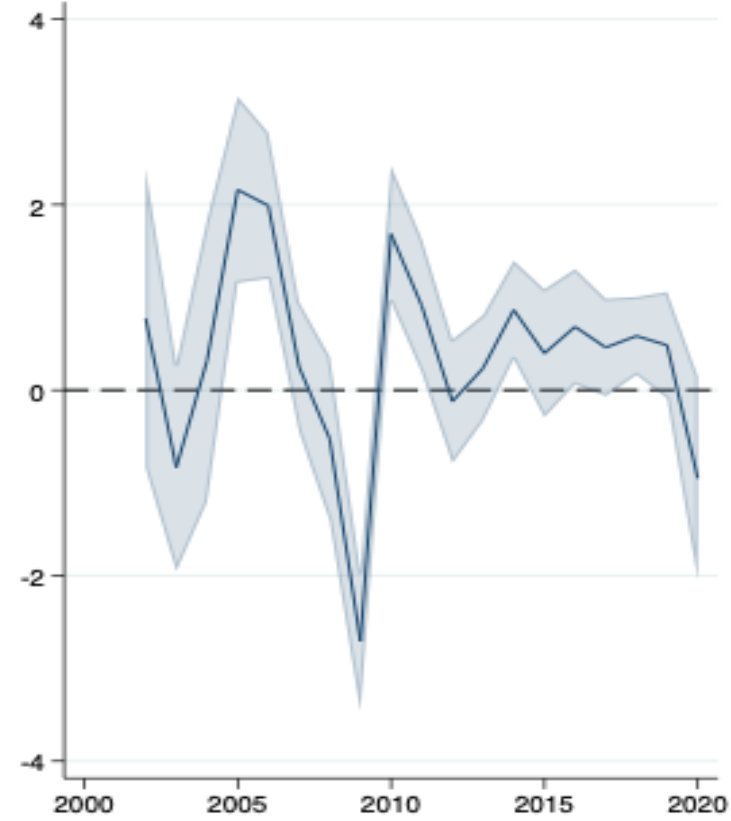
The NSI, for each research project has to:

1. Provide access procedures
2. Provide dedicated assistance
3. Provide Microdata research support
4. Do a disclosure analysis
5. Sometimes host researchers

The resulting disclosure-free output will be used in a publication, **virtually impossible to replicate in other countries** after many hurdles!
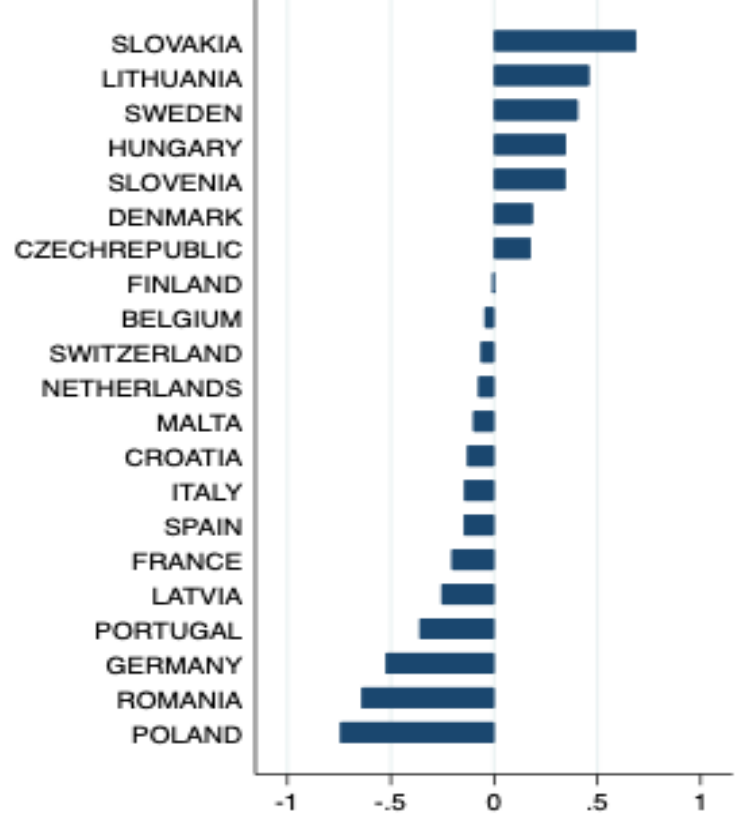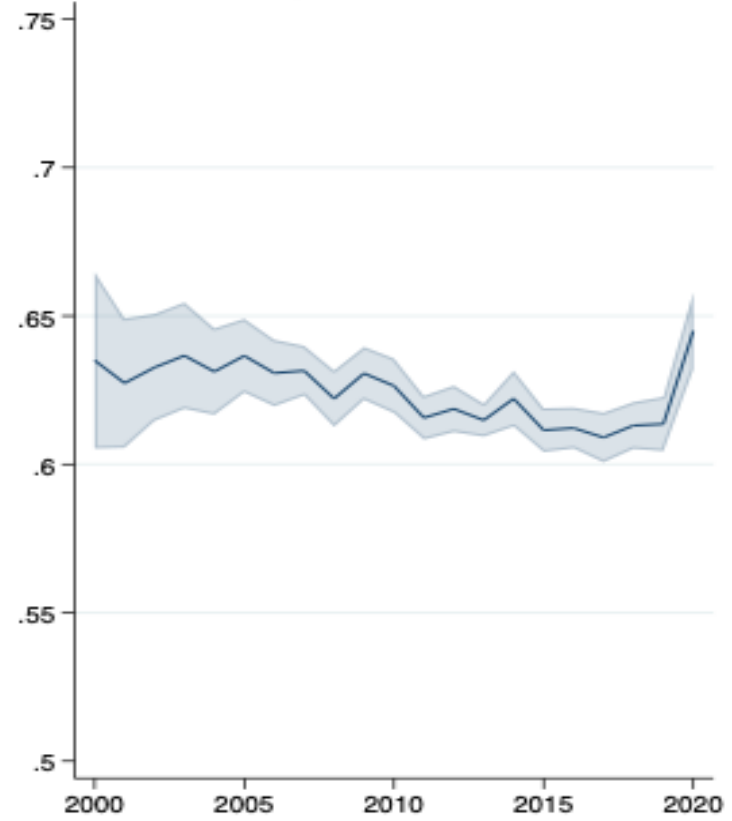
➜ **TFP** growth declines in 2020, but it was much worse in 2009

Stylised facts out of the 9° vintage: TFP growth and dispersion

Dispersion in Average Revenue TFP: Europe

Legend: 95% CI — Mean

Deviation per country

Countries (top to bottom): FRANCE, CROATIA, LATVIA, BELGIUM, SWEDEN, SLOVAKIA, MALTA, GERMANY, HUNGARY, PORTUGAL, ROMANIA, POLAND, LITHUANIA, SWITZERLAND, SPAIN, CZECH_REPUBLIC, NETHERLANDS, DENMARK, ITALY, SLOVENIA, FINLAND
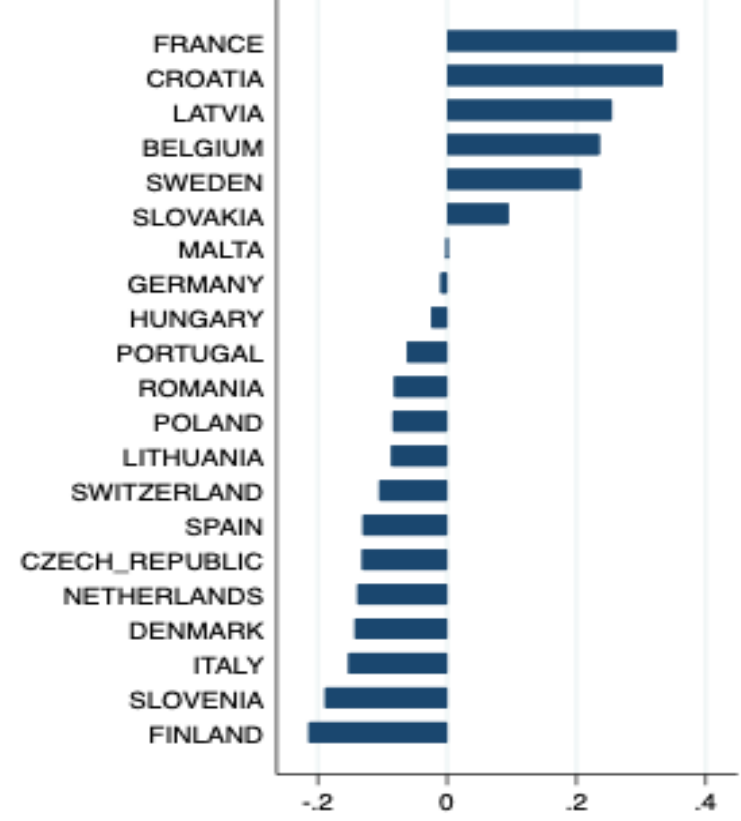
Legend: deviation from European average

➔**Unprecedented instead** is the within countries and industries **dispersion of TFP growth**

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www.comp-net.org

1) We have two Datasets and tools

- The **Traditional CompNet dataset**, now at its 9<u>th Vintage:</u> set of productivity indicators (firm-level based) for more that 20 EU countries and 60 sectors, available annually

- The **Micro-Data Infrastructure (MDI)**, a much more granular dataset, now already available for 6 countries (DK, FI, FR, NL, NO, SE), which will allow researchers to run codes independently and directly on previously harmonised firm level datasets

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Introduction

- Huge thanks to Banca d'Italia for hosting this conference

- Productivity is key and CompNet is actively playing its role

- Will tell on achievements and plans on

1) Our CompNet dataset

2) The Microdata infrastructure (MDI)

3) Research

4) Events

5) Going forward

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Conclusions

- **New and exciting research projects**

- **New data**:

    - 9th vintage now available, also including visualization for easy use

    - The MDI project is getting stronger

- **CompNet is thriving**

- **Thanks to Banca d'Italia for hosting us**

The CompNet Dataset 9th Vintage - Joint Distributions

Productivity	Financial	Trade	Competition	Labour

Productivity
- Labour productivity
- VA and revenue TFP; various estimation techniques
- ULC
- Firm size
- Capital Intensity
- Marginal revenue productivity of inputs
- Static and dynamic allocative efficiency
- Energy cost

Financial
- Investment ratio
- RoA
- Cash holdings
- Leverage
- Financing gap
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- Share of "distressed" firms

Trade
- % permanent exp.
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- Export intensity
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- Exports by destination

Competition
- Price-cost margins
- Mark Ups –various estimation techniques
- Herfindahl index
- Concentration of sales in top 10 firms of a sector

Labour
- % firms that change employment between t and t+3 (t+1)
- Share of high-growth firms
- Job creation and job destruction rates
- Wage premium (proxy for human capital)
- Firm entry and exit

Example type of question:
Are low productive firms in a country-sector characterized by higher credit constraints?

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IWH
Halle Institute for Economic Research
Member of the Leibniz Association

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IWH-CompNet Discussion Papers — No. 3, April 2021

European Firm Concentration and Aggregate Productivity

Tommaso Bighelli, Filippo di Mauro, Marc Melitz, Matthias Mertens

The Economics of Firm Productivity

Concepts, Tools and Evidence

Carlo Altomonte and Filippo di Mauro

- Bighelli et al. (with M. Melitz)
  On *Firm concentration and resource reallocation*
  → Published in JEEA
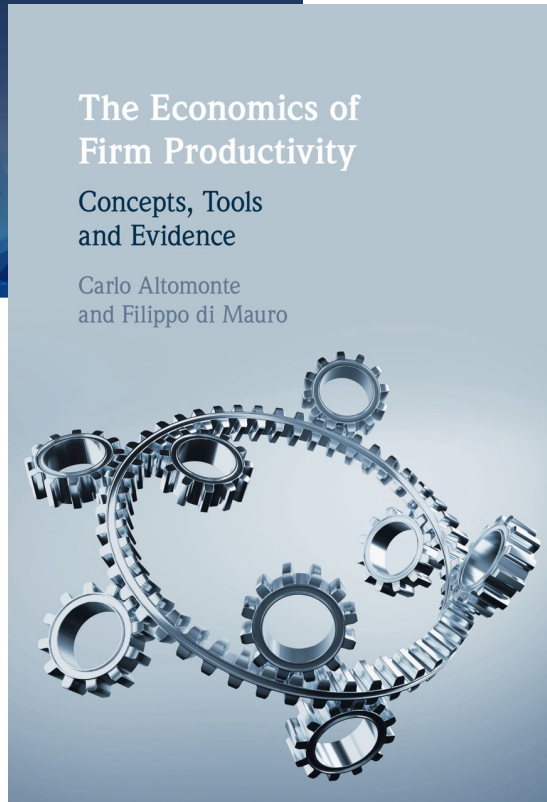
- Book by Altomonte and di Mauro on *The Economics of Firm productivity* (Cambridge University press)

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4) Events in 2022 and 2023

- **Data Provider/users Forums** to enhance best practices and data quality
  - **CompNet data provider forum (Annual)**

- **Academic Conferences** attended by scholars active in the field
  - **FINPRO series…**
  - **CompNet annual conferences (next in Brussels, 19 october 2023, CfP open)**

- **Training Courses**

- **Policy Workshops** promoting applications of our data to policy questions
  - **Every 4 months under the TA program with the Commission**

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