USING SEMANTIC ANALYSIS TOOLS TO ANALYSE DATA FROM THE 2017 EC/OECD STI POLICY SURVEY

HANDS-ON EXERCISE

CSTP-TIP Workshop: Semantic Analysis for Innovation Policy
13 March 2018

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Agenda

1) Brief overview of the dashboard interfaces

2) Guided example

3) Two independent hands-on exercises

Dashboards overview

STIPCOMPASS

EC-OECD International Database on Science, Technology and Innovation Policies

The STI Policy Compass is an international initiative of the OECD and the European Commission, which aims to support the works on science and innovation policy. It covers the OECD countries, the EU Member States and the major emerging economies. In addition, the data collected are used by the European Commission for the analysis and monitoring of the research and innovation policy responses and performance of EU Member States, notably in the context of the European Semester, and feed into the work of the Horizon 2020 Policy Support Facility and into the regular economic analyses produced by the European Commission.

🔍 **BROWSE BY:**

INTERACTIVE DASHBOARDS   🔍 **POLICY EXPLORER**

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The database is based on country responses to the European Commission-OECD Science, Technology and Innovation Policy Survey.

Download STIP Compass model and taxonomies (N-triples) / Download latest STIP Compass data (XML)

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Main Dashboard

Visualising 2017 STIP Survey data through different **lenses**:

- ✓ A **country**
- ✓ A **theme** (policy issue)
- ✓ A **policy instrument**
- ✓ A **target group**
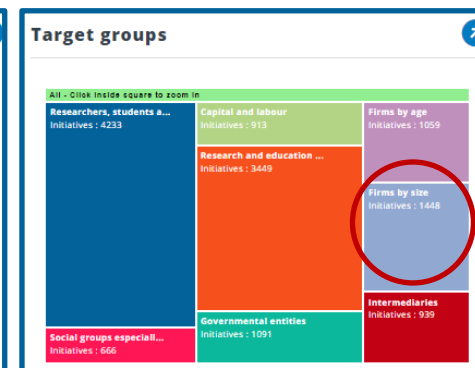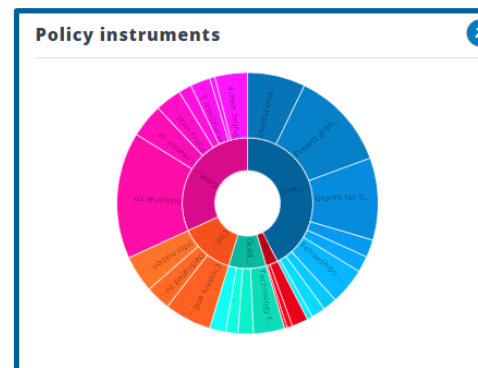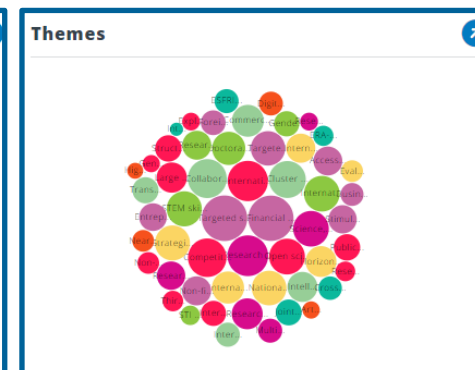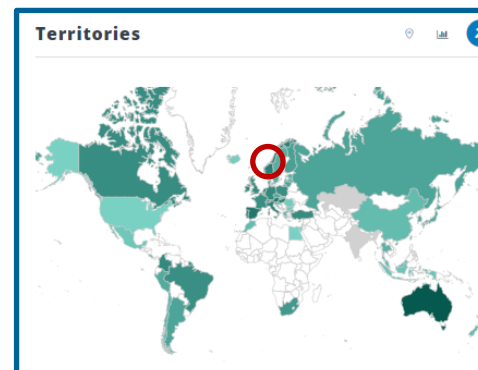
Click to **zoom-in** the data:

For example, clicking on Norway will open the **country dashboard** providing an **overview** of **country submitted data**.

Another example: clicking on SMEs will open the **target group dashboard** providing an overview of **data submitted by all countries** on SMEs.

STI Policy Compass

The EC-OECD STI Policy Compass collects quantitative and qualitative data on national trends in science, technology and innovation (STI) policy. It addresses all areas of STI policy, involving initiatives spread across different Ministries and national agencies, with competence over domains as broad as research, innovation, education, industry, environment, labour, finance/budget, and others. The STIP Database is unprecedented in its scope, nature and scale and has become a major large-scale international tool to monitor and analyse countries' science and innovation policies.

Content Menu — Data at a Glance

Territories

Themes

Policy instruments

Target groups

All - Click inside square to zoom in

Researchers, students a... Initiatives : 4233	Capital and labour Initiatives : 913	Firms by age Initiatives : 1059
Research and education ... Initiatives : 3449	Firms by size Initiatives : 1448	
Social groups especiall... Initiatives : 666	Governmental entities Initiatives : 1091	Intermediaries Initiatives : 939

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Sample Target Group Dashboard

Each dashboard provides visualisations relative to the same **four dimensions**.
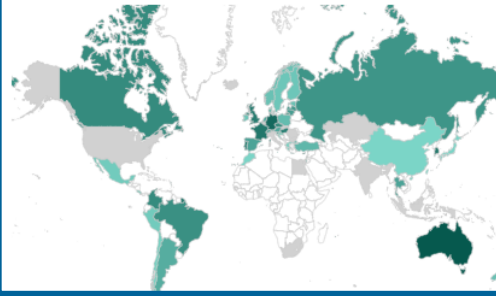
Example: **SMEs dashboard**

✓ How many initiatives do different **countries** have targeting SMEs?

✓ In which policy **themes** are SMEs involved?

✓ What **policy instruments** target SMEs?
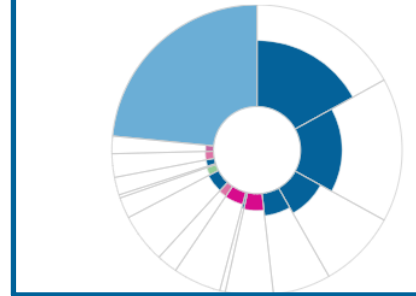
✓ What are the **related target groups**?

Home > SMEs

SMEs

Small and midsize enterprises (SMEs) are businesses that maintain revenues, assets or a number of employees below a certain threshold. Every country and economic organisation has its own definition of what is considered a small and medium-sized enterprise. In the United States, there is no distinct way to identify SMEs, but in the European Union, a small-sized enterprise is a company with fewer than 50 employees, while a medium-sized enterprise is one with fewer than 250 employees.
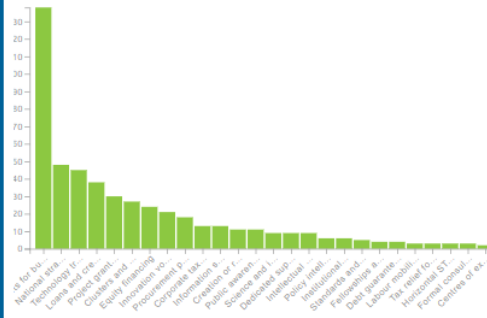
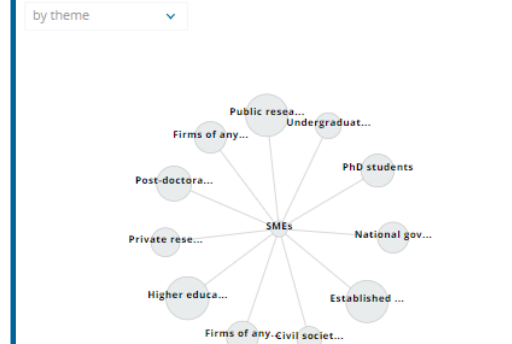What kinds of policies does **Finland** <u>report</u> in support of the **public research system**?

Specific queries

1) How **many initiatives** has Finland submitted?

2) What are the most frequently reported **target groups**?

3) What are the main **policy instruments** cited?

4) What are the main **responsible organisations**?

5) What are the main **policy themes** covered?

What kinds of policies does **Finland** report in support of the **public research system**?

Spe

1) **Key caveat**: Interfaces provide submitted?
   data as reported by countries.

2) ted **target groups**?

3) What are the main **policy instruments** cited?

4) What are the main **responsible organisations**?
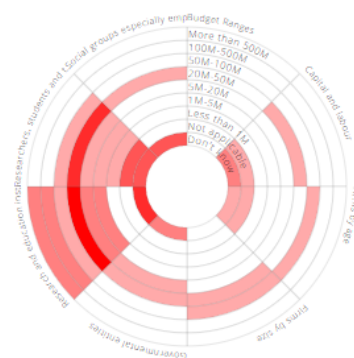
5) What are the main **policy themes** covered?

Guided example:
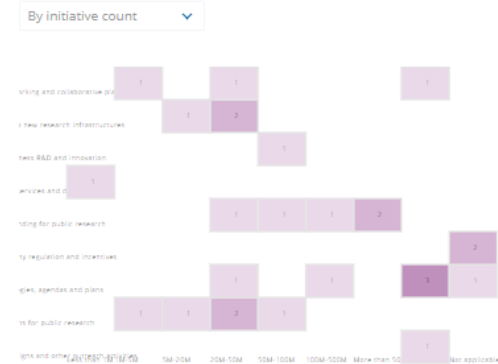# Public research system in Finland

Public research system in Finland

Finland's research and innovation system is in the midst of several reforms aiming for closer cooperation between researchers, companies and the societal actors. This is driven by not only the needs of the industry, but also many grand challenges, such as aging population, marginalisation, growing social and health-care expenses to mention a few. The Research and Innovation Council has drawn up a new vision: "Finland will be the most attractive and competent environment for experiment and innovation". Tekes and Finpro merge to form Business Finland, which will introduce new funding services (i... show more
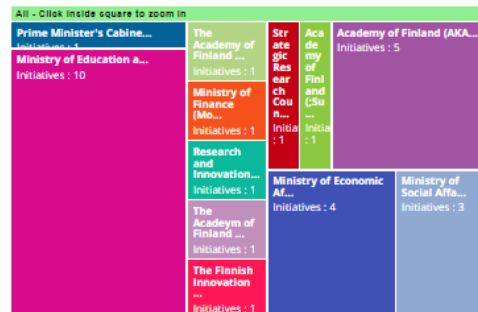
Target groups

Policy Instruments

Responsible Organisations

Themes

Target groups in
public research system initiatives

Finland

MAIN TARGET GROUPS

Research and education institutions (HEIs / PRIs / Private labs)
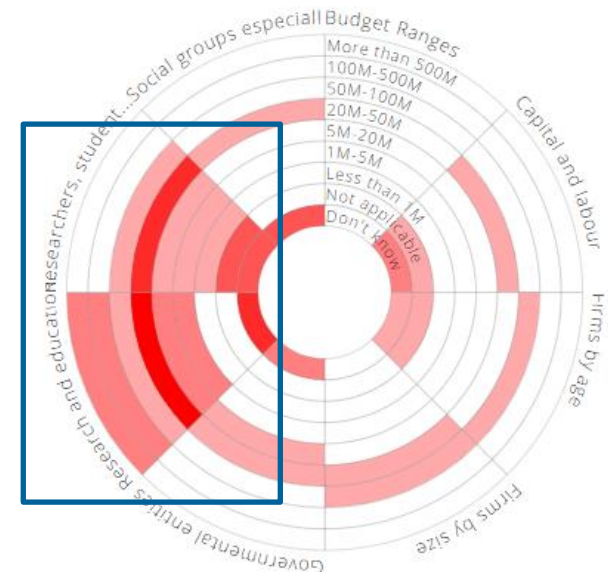
Budgets ranging between

<1 M EUR and +500 M EUR

Researchers, students and teachers

Budgets ranging between

<1 M EUR and 100 M EUR

Target groups

Policy instruments in public research system initiatives

MAIN POLICY INSTRUMENTS

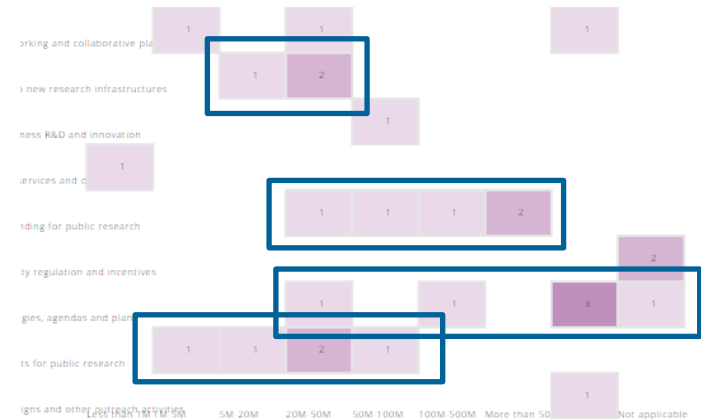Several **National strategies, agendas and plans**

Mix of **institutional funding** and **project grants**, with the former being associated to higher budgets

Support to **new research infrastructures**

Finland

Policy Instruments

By initiative count

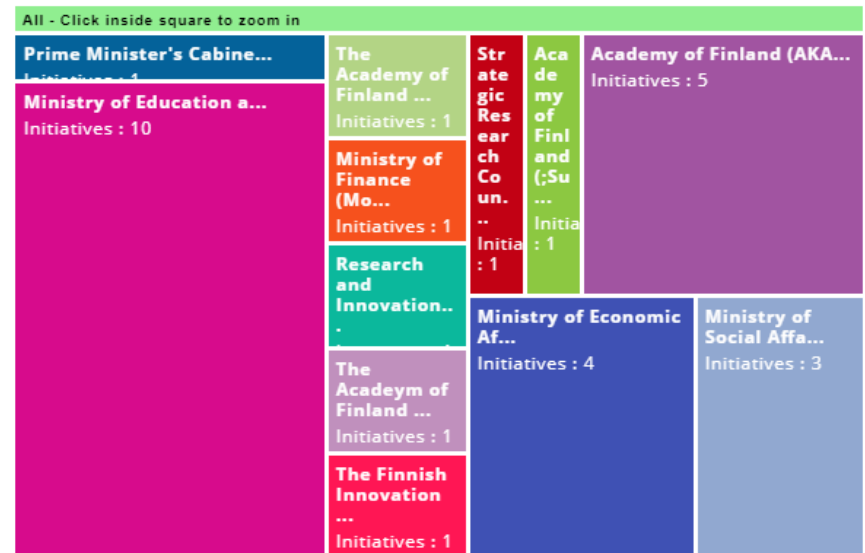# Responsible organisations for public research system initiatives

MAIN RESPONSIBLE ORGANISATIONS

Ministry of Education and Culture
(10 reported initiatives)

Academy of Finland
(5 reported initiatives)

Ministry of Economic Affairs and Employment
(4 reported initiatives)

Finland

All - Click inside square to zoom in

Prime Minister's Cabine...
Initiatives : 1

Ministry of Education a...
Initiatives : 10

The Academy of Finland ...
Initiatives : 1

Ministry of Finance (Mo...
Initiatives : 1

Research and Innovation..
.

The Acadeym of Finland ...
Initiatives : 1

The Finnish Innovation ...
Initiatives : 1

Strategic Research Coun...
Initia : 1

Academy of Finland (;Su...
Initia : 1

Academy of Finland (AKA...
Initiatives : 5

Ministry of Economic Af...
Initiatives : 4

Ministry of Social Affa...
Initiatives : 3

Responsible organisations for public research system initiatives

Finland

MAIN POLICY THEMES ADDRESSED

Competitive research funding
(5 initiatives)

Open science and open access
(5 initiatives)

HANDS-ON EXERCISES

What kinds of policies do **France**, **Netherlands**, and **Germany** report for **public-private knowledge transfers**?

Queries for each country

1) How **many initiatives** have countries submitted?

2) What are the 2-3 most frequently reported **target groups**?

3) What are the 2-3 main **policy instruments** cited?

4) What are the 2-3 main **responsible organisations**?

5) What are the 2-3 main **policy themes** addressed?

INSTRUCTIONS

1) **Pair-up** with your neighbour

2) **Go to** http://stip.oecd.org

3) **Fill in** your answers for Exercise 1 in the answer sheet

Afterwards, we will resume with a **discussion** where you will be able to **share your findings and impressions**.

How did you find the exercise?

Possible questions for discussion

- What are your **main findings** from your analysis?

- What **comparisons** did you find most interesting?

- Was it **difficult to answer** any of the queries?

- Would you like to know **something else** from the data?

Exercise 2:
Knowledge Transfer Policy Themes

What kinds of initiatives do countries report in the following **policy themes**?

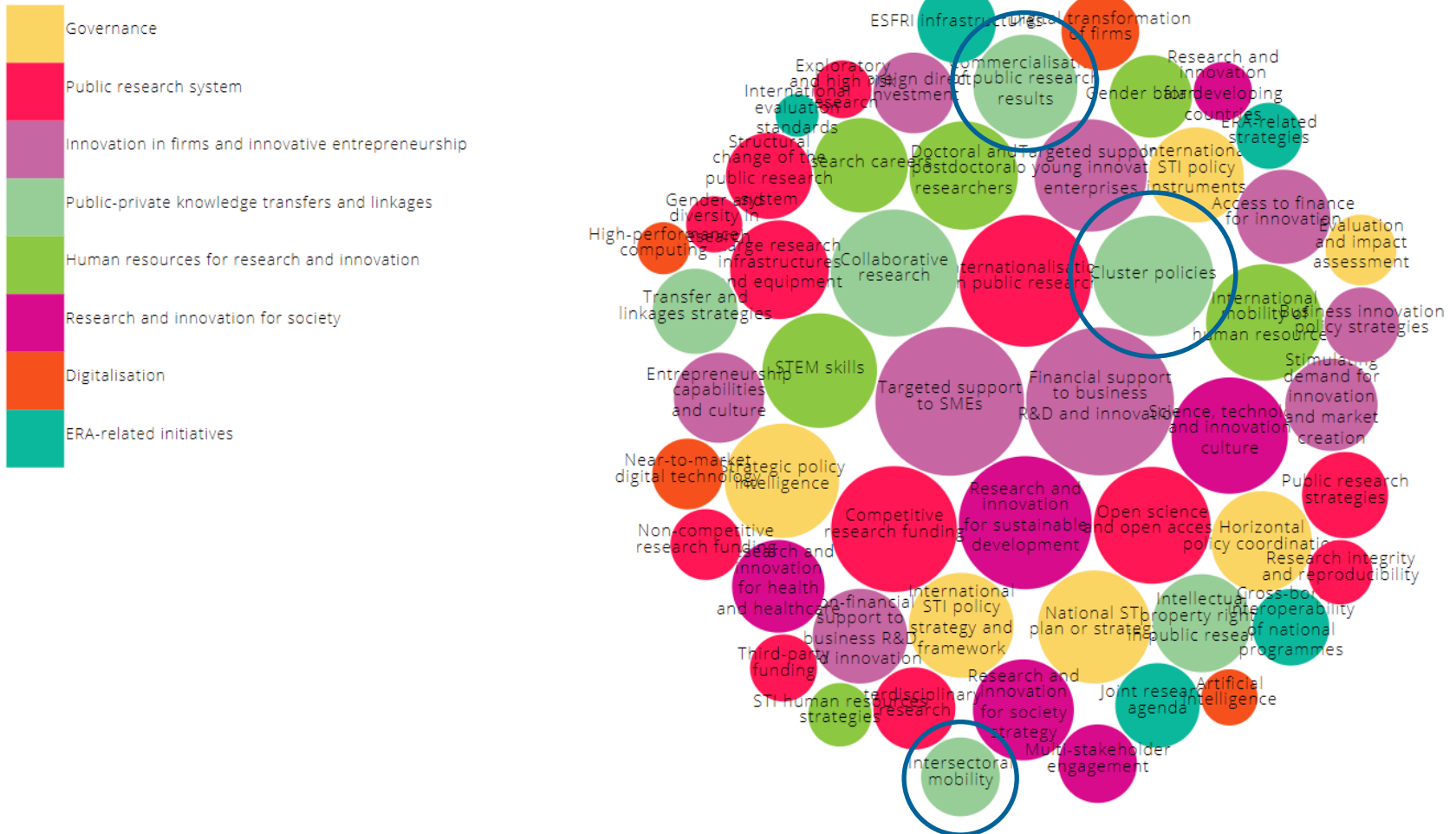| **Commercialisation of public research results**	**Intersectoral mobility**	**Cluster policies**

Queries for each theme

1) **How many initiatives** are there reported?

2) What are the 3-5 **countries** report more initiatives for these themes?

3) What are the 2-3 main **target groups** addressed?

4) What are the 2-3 main **policy instruments** used?

5) Which other 2-3 **policy themes** are relevant?

Opening themes

Governance

Public research system

Innovation in firms and innovative entrepreneurship

Public-private knowledge transfers and linkages

Human resources for research and innovation

Research and innovation for society

Digitalisation

ERA-related initiatives

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European Commission

How did you find the exercise?

Possible questions for discussion

- What are your **main findings** from your analysis?

- What **comparisons** did you find most interesting?

- Was it **difficult to answer** any of the queries?

- Would you like to know **something else** from the data?

Thank you for your attention

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