

Research and Development in the EU

Guideline on the use of the European
Innovation Scoreboard

How to use the Innovation Scoreboard

The Scoreboard is available here:

- https://ec.europa.eu/growth/industry/policy/innovation/scoreboards_en

There is a visualization tool to it here:

- https://interactivetool.eu/EIS/EIS_2.html#b

These should be used.

The use of the Innovation Scoreboard

- This is what You will see if You click on the link.

European innovation scoreboard

The European innovation scoreboard provides a comparative analysis of innovation performance in EU countries, other European countries, and regional neighbours. It assesses relative strengths and weaknesses of national innovation systems and helps countries identify areas they need to address. The European innovation scoreboard 2019 was released on 17 June 2019.

The [regional innovation scoreboard](#) is a regional extension of the European innovation scoreboard, assessing the innovation performance of European regions based on a limited number of indicators. The latest edition of this 2-yearly report was also published on 17 June 2019.

European innovation scoreboard 2019

The 2019 edition of the scoreboard highlights that the EU's innovation performance continues to improve. Compared to last year, innovation performance improved for 24 EU countries and the growth rate of lower-performing countries compared to higher-performing countries has accelerated. Since 2011, the EU's average innovation performance has increased by 6.8 percentage points.

The EU's performance has surpassed the United States for the first time and has a considerable lead over Brazil, India, Russia, and South Africa. However, China is catching up at 3 times the EU's innovation performance growth rate and Canada, Australia, Japan, maintain a performance lead over the EU.

Within the EU, innovation performance increased in 25 countries since 2011. Sweden is the 2019 EU innovation leader, followed by Finland, Denmark and the Netherlands. Lithuania, Greece, Latvia, Malta, the United Kingdom, Estonia, and the Netherlands are the fastest growing innovators.

The 2019 edition follows the methodology of the 2018 edition. However, results should not be compared across editions due to data revisions. Time series using the most recent data allow performance to be tracked over time.

In the spotlight

[NEW European innovation scoreboard tool](#)
Display country profiles, compare performance scores, and test correlations.



Country profiles

EU countries

Austria	Belgium	Bulgaria	Croatia
Cyprus	Czechia	Denmark	Estonia
Finland	France	Germany	Greece
Hungary	Ireland	Italy	Latvia
Lithuania	Luxembourg	Malta	Netherlands
Poland	Portugal	Romania	Slovakia
Slovenia	Spain	Sweden	United Kingdom

Non-EU countries

Iceland	Israel	North Macedonia		
Norway	Serbia	Switzerland	Turkey	Ukraine

Innovation Scoreboard

- You can download the full report
- Click on Main report
- Then download the full report

Country profiles

EU countries

Austria	Belgium	Bulgaria	Croatia
Cyprus	Czechia	Denmark	Estonia
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Hungary	Ireland	Italy	Latvia
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European innovation scoreboard interactive tool

The European innovation scoreboard interactive tool allows for custom comparisons of performance profiles, compare relative strengths, weaknesses and trends, and test correlations between indicators

- [EIS interactive tool](#) (last updated 17 June 2019)

Related documents and media

- [European innovation scoreboard 2019 – Main report](#)


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EIS 2019 -main report

Document date: 14/06/2019 - Created by: GROW.DDG1.F.1 - Publication date: n/a - Last update: 17/12/2019

[EIS 2019 -main report](#)  (4 MB)

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Document keywords

- innovation
- annual report
- statistics

Last update: 17/12/2019 | [top](#)

Innovation Scoreboard

- You can check individual country profiles if You click on the selected country
- Data is available for these countries

Country profiles

EU countries

Austria	Belgium	Bulgaria	Croatia
Cyprus	Czechia	Denmark	Estonia
Finland	France	Germany	Greece
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Poland	Portugal	Romania	Slovakia
Slovenia	Spain	Sweden	United Kingdom

Non-EU countries

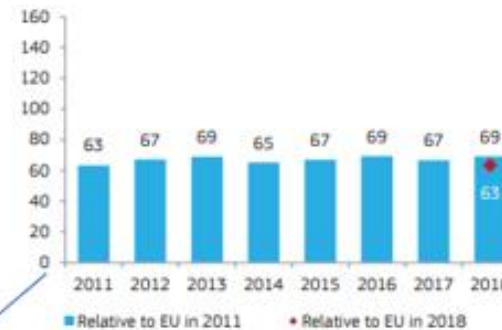
Iceland	Israel	North Macedonia		
Norway	Serbia	Switzerland	Turkey	Ukraine

Innovation Scoreboard

- The country profile contains the following data



Slovakia is a **Moderate Innovator**. Over time, performance has increased relative to that of the EU in 2011.



The change in performance compared to the EU (where EU average=100%)

The score of the Innovation Index

The bold writings show the performance of the 10 innovation dimensions

All these non- bold writings show the performance of the indicators for each dimension

Numbers in this table mean: % relative to the EU average, e.g. sales impacts in 2018 means that in Slovakia the performance was 11.2% better than the EU average or for finance & support it means that Slovakia's performance was 76.2% below the EU avg.

Slovakia	Relative to EU 2018 in 2018	Performance relative to EU 2011 in 2011	Performance relative to EU 2011 in 2018
SUMMARY INNOVATION INDEX	63.5	63.5	69.1
Human resources	70.4	101.0	86.1
New doctorate graduates	95.4	230.8	138.5
Population with tertiary education	78.8	44.8	94.0
Lifelong learning	23.5	31.3	24.0
Attractive research systems	41.5	28.7	46.7
International scientific co-publications	57.8	52.1	84.1
Most cited publications	31.8	15.5	34.9
Foreign doctorate students	42.4	34.0	40.5
Innovation-friendly environment	57.5	63.4	90.9
Broadband penetration	72.2	88.9	144.4
Opportunity-driven entrepreneurship	42.0	46.0	54.4
Finance and support	23.8	21.4	26.1
R&D expenditure in the public sector	43.5	30.9	40.2
Venture capital expenditures	7.2	10.1	9.3
Firm investments	66.9	84.9	79.7
R&D expenditure in the business sector	34.1	20.2	39.1
Non-R&D innovation expenditures	90.2	101.5	105.4
Enterprises providing ICT training	73.7	133.3	93.3
Innovators	41.7	44.1	37.9
SMEs product/process innovations	44.1	41.1	42.8
SMEs marketing/organizational innovations	37.8	60.6	32.3
SMEs innovating in-house	42.7	30.3	38.4
Linkages	57.9	51.1	60.1
Innovative SMEs collaborating with others	65.6	45.8	70.1
Public-private co-publications	32.7	30.8	38.4
Private co-funding of public R&D exp.	64.8	63.6	62.2
Intellectual assets	39.8	28.2	38.7
PCT patent applications	17.9	9.9	16.3
Trademark applications	59.8	49.2	66.6
Design applications	42.2	30.0	38.9
Employment impacts	108.5	117.7	113.3
Employment in knowledge-intensive activities	57.6	60.3	62.8
Employment fast-growing enterprises	148.1	159.2	149.8
Sales impacts	111.2	92.2	114.5
Medium and high-tech product exports	128.6	119.1	138.7
Knowledge-intensive services exports	40.6	35.9	41.9
Sales of new-to-market/firm innovations	174.5	125.0	169.3

The colours show normalised performance in 2018 relative to that of the EU in 2018: dark green: above 120%; light green: between 90% and 120%; yellow: between 50% and 90%; orange: below 50%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data.

Slovakia belongs to which group the country. Sales impacts and Employment impacts are the strongest innovation dimensions. Slovakia scores particularly well on Sales of new-to-market and new-to-firm product innovations, Employment fast-growing enterprises of innovative sectors, and Medium and high-tech product exports. Finance and support, Intellectual assets and Attractive research systems are the weakest innovation dimensions. Overall, Slovakia's lowest indicator scores comprise Venture capital expenditures, PCT patent applications, and Lifelong learning.

This is a short summary on the countries performance.

Structural differences with the EU are shown in the table below. Average annual GDP growth, the employment share in manufacturing, the value-added share of foreign-controlled enterprises, and total entrepreneurial activity are well above the EU average. The employment shares in services and in knowledge-intensive services, and top R&D spending enterprises per 10 million population are well below the EU average.

	SK	EU
Performance and structure of the economy		
GDP per capita (PPS)	22,600	29,500
Average annual GDP growth (%)	3.6	2.2
Employment share manufacturing (NACE C) (%)	24.6	15.9
of which High and medium high-tech (%)	44.1	37.5
Employment share services (NACE G-I) (%)	54.1	41.8
of which Knowledge-intensive services (%)	28.6	35.0
Turnover share SMEs (%)	35.5	37.9
Turnover share large enterprises (%)	43.6	44.4
Foreign-controlled enterprises - share of value added (%)	19.4	12.6
Business and entrepreneurship		
Enterprise births (10+ employees) (%)	1.7	1.5
Total Entrepreneurial Activity (TEA) (%)	11.1	6.7
FDI net inflows (% GDP)	n/a	4.3
Top R&D spending enterprises per 10 million population	0.0	19.6
Buyer sophistication (1 to 7 best)	2.9	3.7
Governance and policy framework		
Ease of starting a business (0 to 100 best)	74.7	76.8
Basic-school enterpren. education and training (1 to 5 best)	1.9	1.9
Govt. procurement of advanced tech products (1 to 7 best)	3.1	3.5
Rule of law (1-2.5 to 2.5 best)	n/a	1.2
Demography		
Population size (millions)	5.4	511.3
Average annual population growth (%)	0.2	0.2
Population density (inhabitants/km2)	111.3	117.5

The table shows the country's main economic indicators

EU targets for 2020

Indicator	2014	Latest	Target ¹
Gross domestic expenditure on R&D (% of GDP)	0.88	0.88	1.20
Tertiary educational attainment (% of population aged 30-34)	26.9	37.7	40.0

¹ Sources are provided in the introduction to the country profiles

The table shows the country's performance regarding the innovation related Europe 2020 targets

European Semester country report and country specific recommendations:

https://ec.europa.eu/economy_finance/economy_finance_analysis/european-semester-2019-country-reports
https://ec.europa.eu/economy_finance/economy_finance_analysis/european-semester-2019-country-specific-recommendations-2019-research-and-innovation-analysis

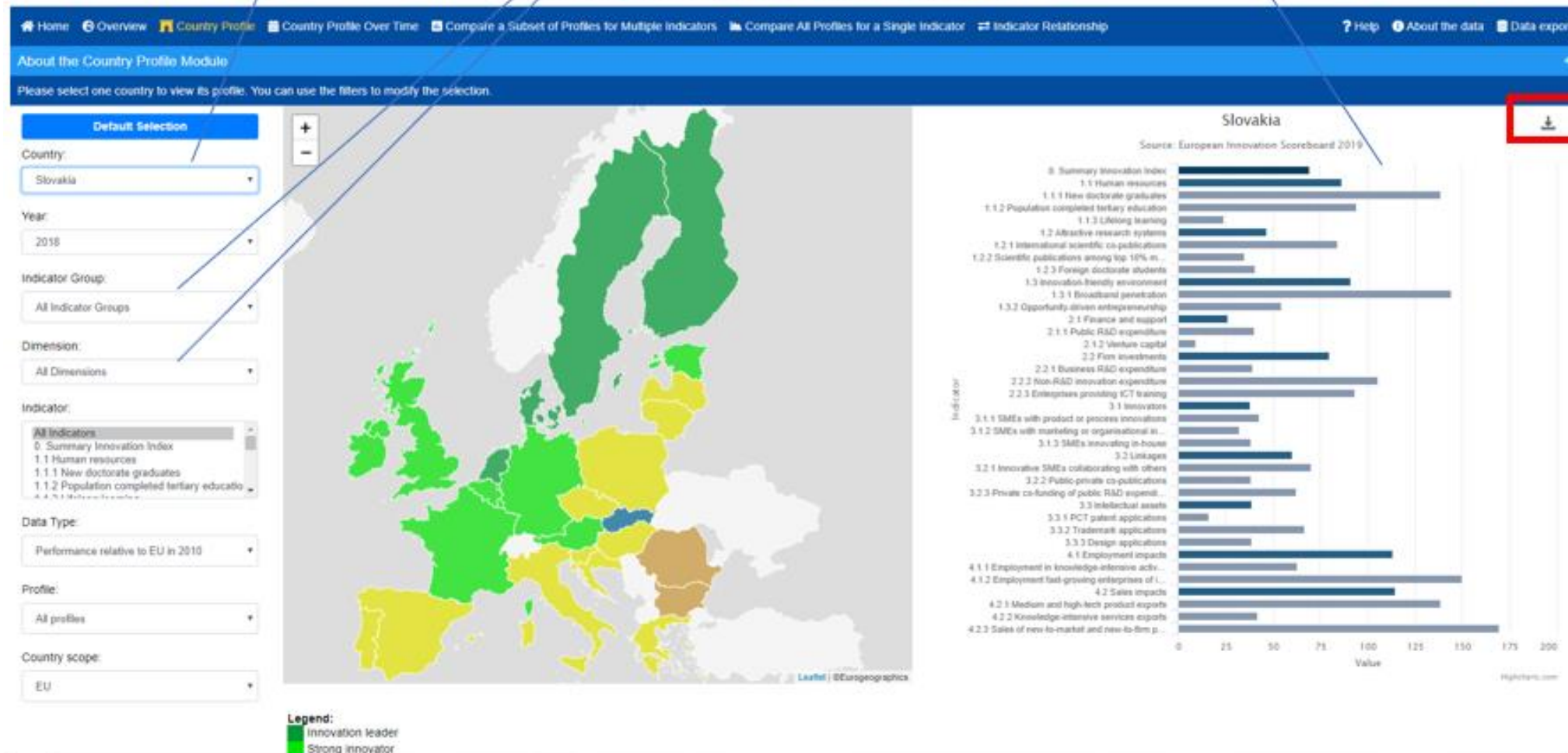
Visualization Tool

Select country here, or just by clicking on it on the map

Here you can narrow down the indicators or dimensions

You can see the data of the country on the dimensions and indicators here, by moving the cursor on the charts you will see the exact numbers

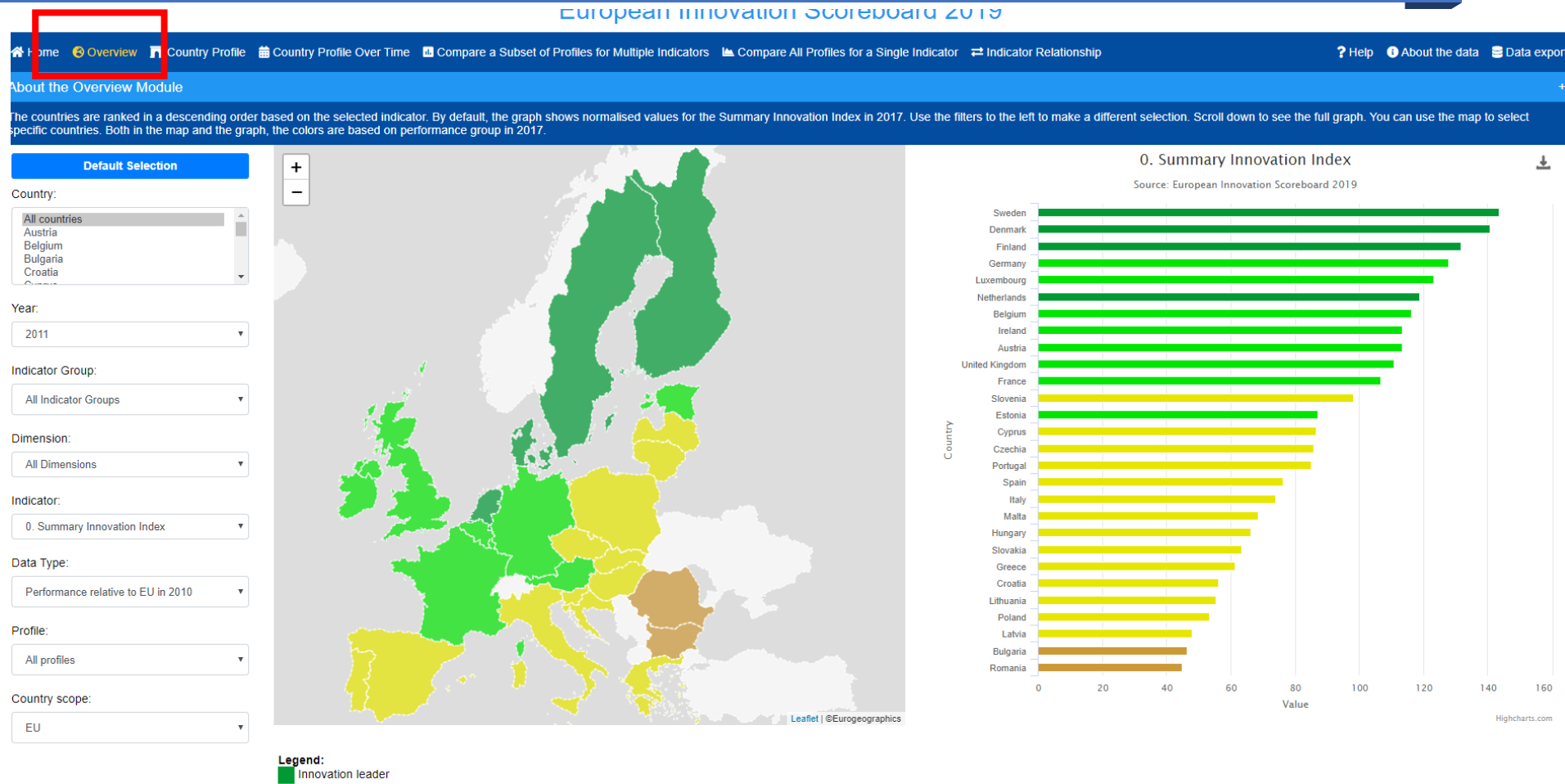
European Innovation Scoreboard 2019



- This is what You will see if You click on the link.
- You can see similar info than in the report
- You can even download it in different formats

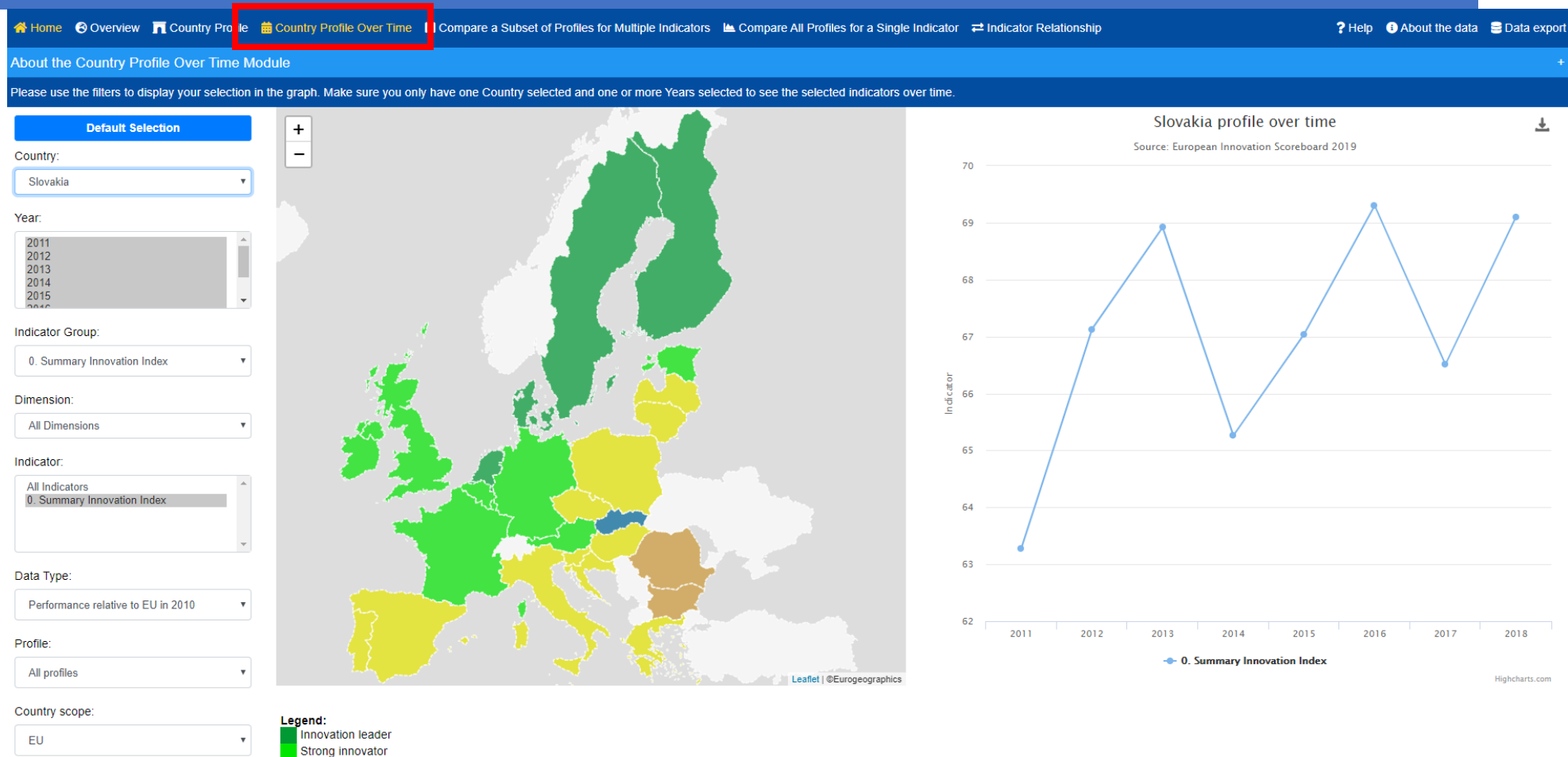
Innovation Scoreboard Visualization Tool

- You can also have an overview on the EU
- Just click on Overview



Innovation Scoreboard Visualization Tool

- You can also have an overview on the countries profile over time
- Just click on it
- Or You can compare countries for one indicator too, or subsets of profiles for multiple indicators (as you can see next to country profile over time)



What to use in your work?

Which group the country belongs to & score

How the country is doing overall compared to the EU

What are the best performing dimensions & indicators? (e.g. best 3 or best 5)

What are the worst performing dimensions & indicators? (e.g. worst 3 or worst 5)

Anything that You find interesting REGARDING INNOVATION & R&D!

The contents or components of this lesson may be used only with prior written permission.

Thank you for your attention

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