

International Comparative Assessments



This session will focus on:

- Description of the Innovation Union Scoreboard Framework.
- Main results of the Innovation Union Scoreboard 2015 report.
- Innovation Performance Indicators of the EU Member States.
- Similar evaluation mechanisms used in Eastern Partnership Countries.



- 01.** Introduction
- 02.** Measurement Framework
- 03.** Innovation Union Scoreboard 2015 Report
- 04.** Similar Mechanisms with Eastern Partnership Countries

01. Introduction

Background

- The Innovation Union Scoreboard (IUS), produced by the European Commission (EC), was developed under the **Lisbon Strategy** and revised according to the **Europe2020 Strategy**. It substitutes the European Innovation Scoreboard established in 2001.
- Together with the **Regional Innovation Scoreboard** and the **pilot European Public Sector Innovation Scoreboard** (under development), IUS forms a **comprehensive benchmarking and monitoring system of research and innovation trends and activities in Europe**.



What is the IUS?

“The annual IUS provides a **comparative assessment** of the research and innovation performance of the EU Member States and the **relative strengths and weaknesses** of their research and innovation systems. It helps Member States assess areas in which they need to concentrate their efforts in order to boost their innovation performance.”

- European Commission

02. Measurement Framework

Methodology

- All fourteen editions (2001-2015) of the IUS, since the introduction of the European Innovation Scoreboard in 2001, follow a similar methodology.
- Innovation performance is measured using a composite indicator – **the Summary Innovation Index** – which summarizes the performance of a range of different indicators.
- The Innovation Union Scoreboard distinguishes between **three** main types of indicators:
 - ❑ **Enablers**
 - ❑ **Firm activities**
 - ❑ **Outputs**

and **Eight** innovation dimensions, capturing in total **25** indicators.



Source: IUS 2015 report

Methodology

Enablers

- ❑ Capture the main drivers of innovation performance external to the firms and differentiate between 3 innovation dimensions:

1) Human resources; 2) Open, excellent research systems; 3) Finance and support

Firm activities

- ❑ Capture the innovation efforts at the firm level and differentiate between 3 innovation dimensions:

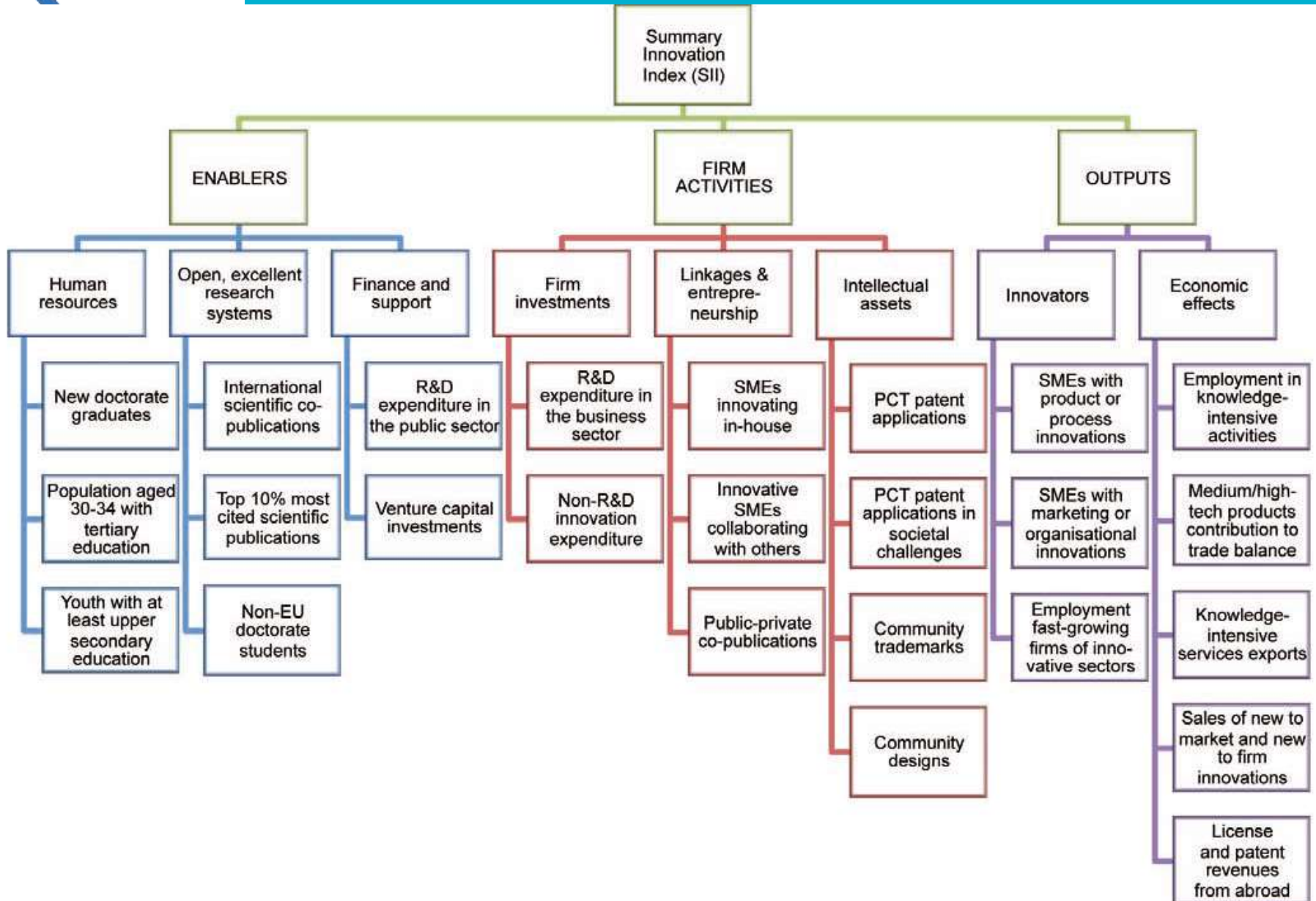
1) Firm investments; 2) Linkages & entrepreneurship; 3) Intellectual assets

Outputs

- ❑ Capture the effects of firms' innovation activities and differentiate between 2 Innovation dimensions:

1) Innovators; 2) Innovation effects

02. Measurement Framework



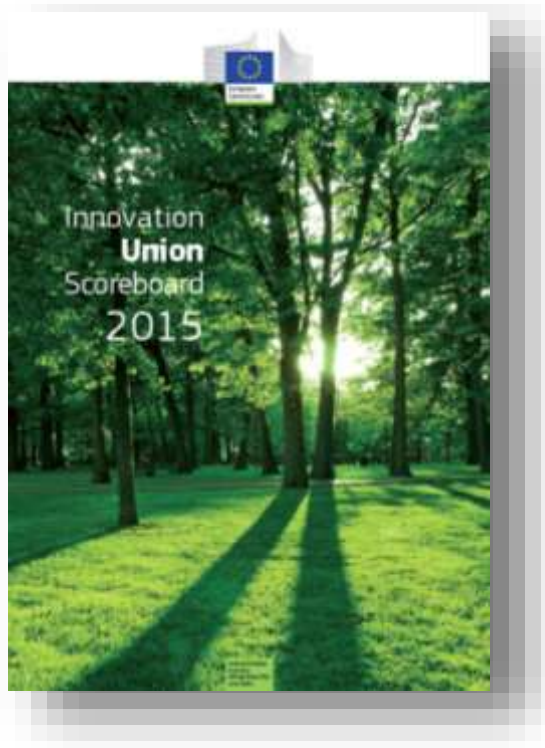
National vs Regional IUS

Regional Innovation Scoreboard (RIS) “provides a comparative assessment of innovation performance across 190 regions of the European Union, Norway and Switzerland. The RIS accompanies the Innovation Union Scoreboard (IUS) which benchmarks innovation performance at the level of Member States.”

- European Commission

Advantages of implementing the IUS

- Assesses the **innovation performance of the EU Member States** and the relative strengths and weaknesses of their research and innovation systems.
- Monitors innovation trends across the EU Member States.
- IUS 2015 analysed **innovation performance for an eight-year period**.
- **Benchmarking innovation performance** with non-EU countries and global competitors.
- Does an analysis at the country level (Country Profile):
 - development of the country's **innovation index over time**.
 - growth performance for each indicator highlighting which **indicators** have been **driving a country's innovation performance** change over time.



03. Innovation Union Scoreboard 2015 Report

Background

- Uses latest statistics from **Eurostat** and other recognized sources (**OECD** and the **United Nations**) as available at the time of analysis with the cut-off day by the end of November 2014.
- Data availability is good for **19** Member States with data being available for all **25 indicators**.
- For **9** Member States data is missing for only **one indicator** including Venture capital investment data for **8** Member States and SMEs innovating in-house for the United Kingdom.

Member States' innovation performance

Based on 2015 Summary Innovation Index, the Member States fall into the following four performance groups:

1. Innovation leaders

MS in which the innovation performance is well above that of the EU, i.e. **more than 20% above the EU average.**

Countries: Denmark, Finland, Germany and Sweden.

2. Innovation followers

MS with a performance close to that of the EU average i.e. **less than 20% above, or more than 90% of the EU average.**

Countries: Austria, Belgium, Cyprus, Estonia, France, Ireland, Luxembourg, Netherlands, Slovenia and the UK.

Member States' innovation performance

3. Moderate innovators

Member States where the innovation performance is **below that of the EU average at relative performance rates between 50% and 90% of the EU average:**

Countries: Croatia, Cyprus, Czech Republic, Estonia Greece, Hungary, Italy, Lithuania, Malta, Poland, Portugal, Slovakia and Spain

4. Modest innovators

Member States that **show an innovation performance level well below that of the EU average, i.e. less than 50% of the EU average.**

Countries: Bulgaria, Latvia and Romania.

Member States' innovation performance

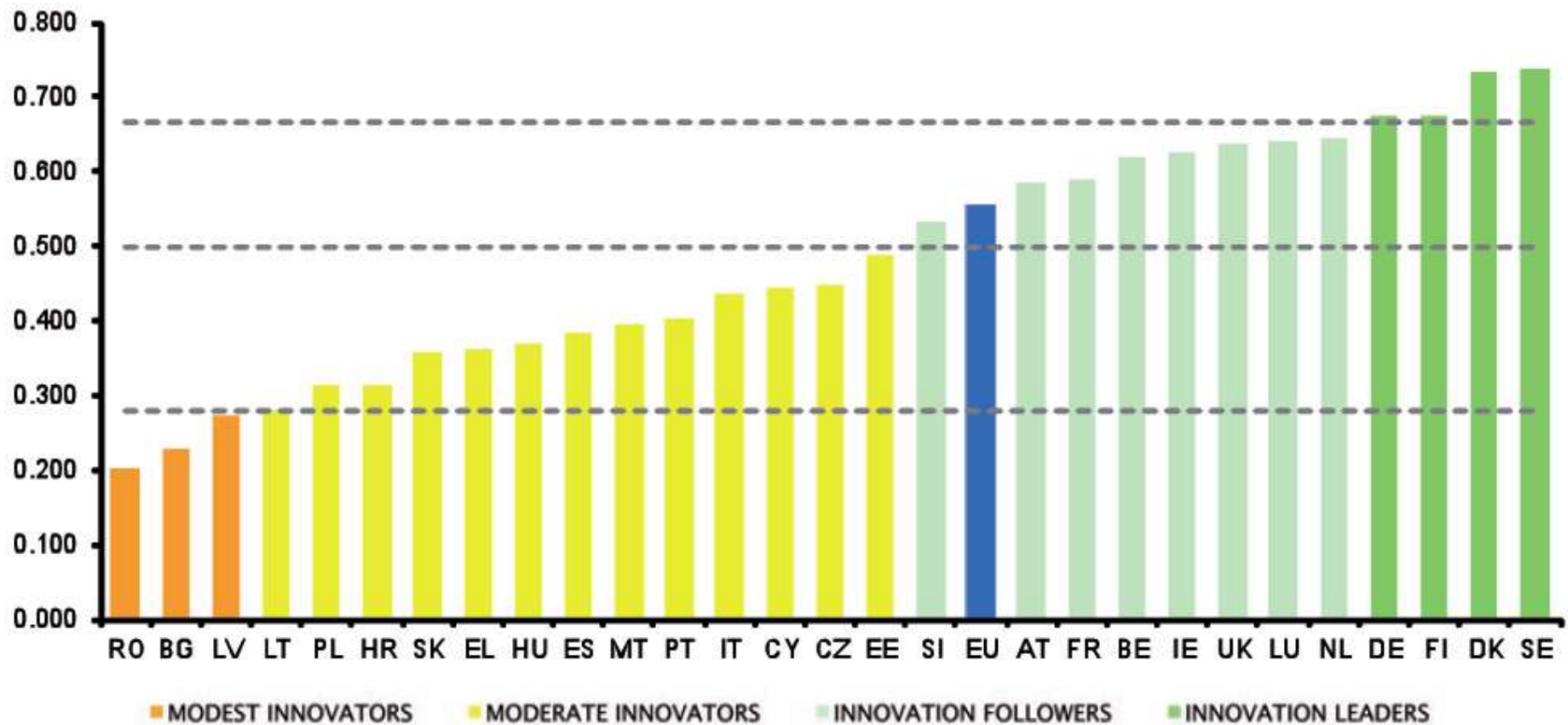


Figure 1. EU Member States' innovation performance

Innovation dimensions

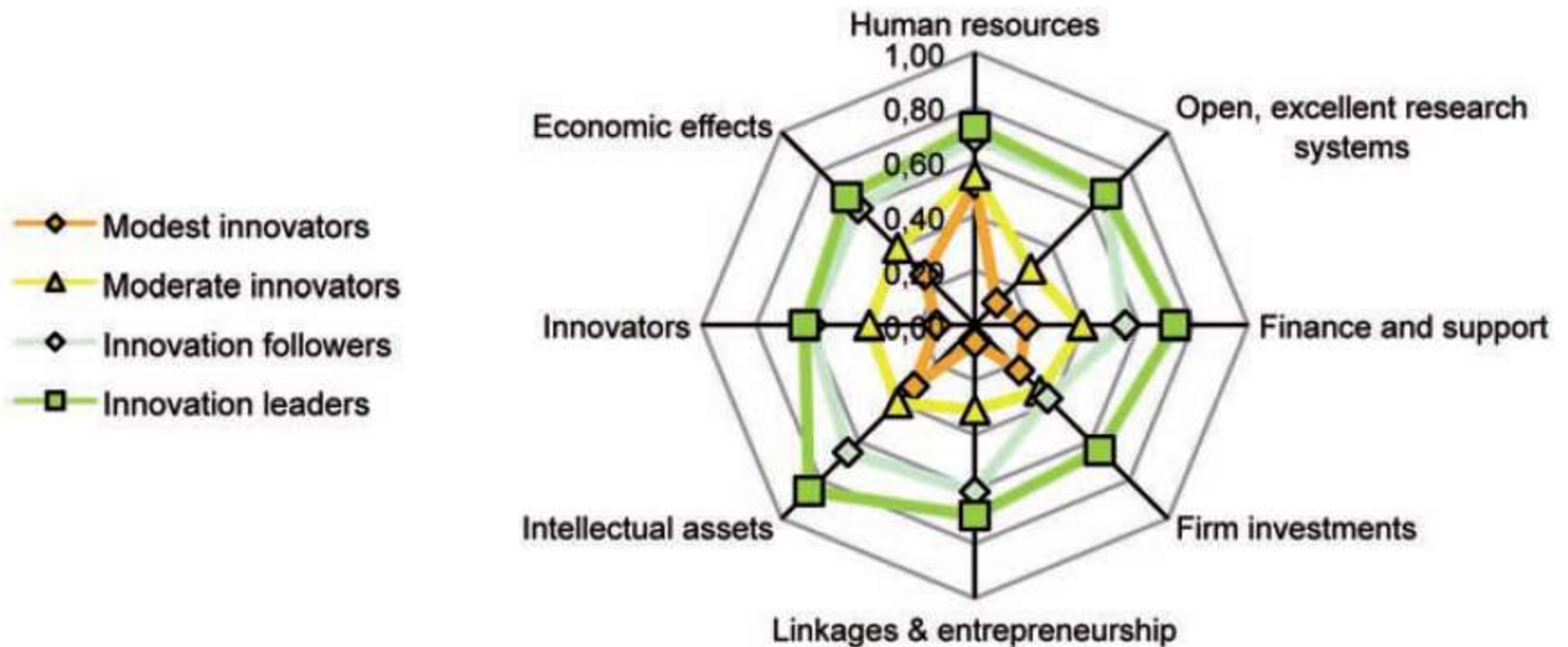


Figure 2. Country groups: innovation performance per dimension

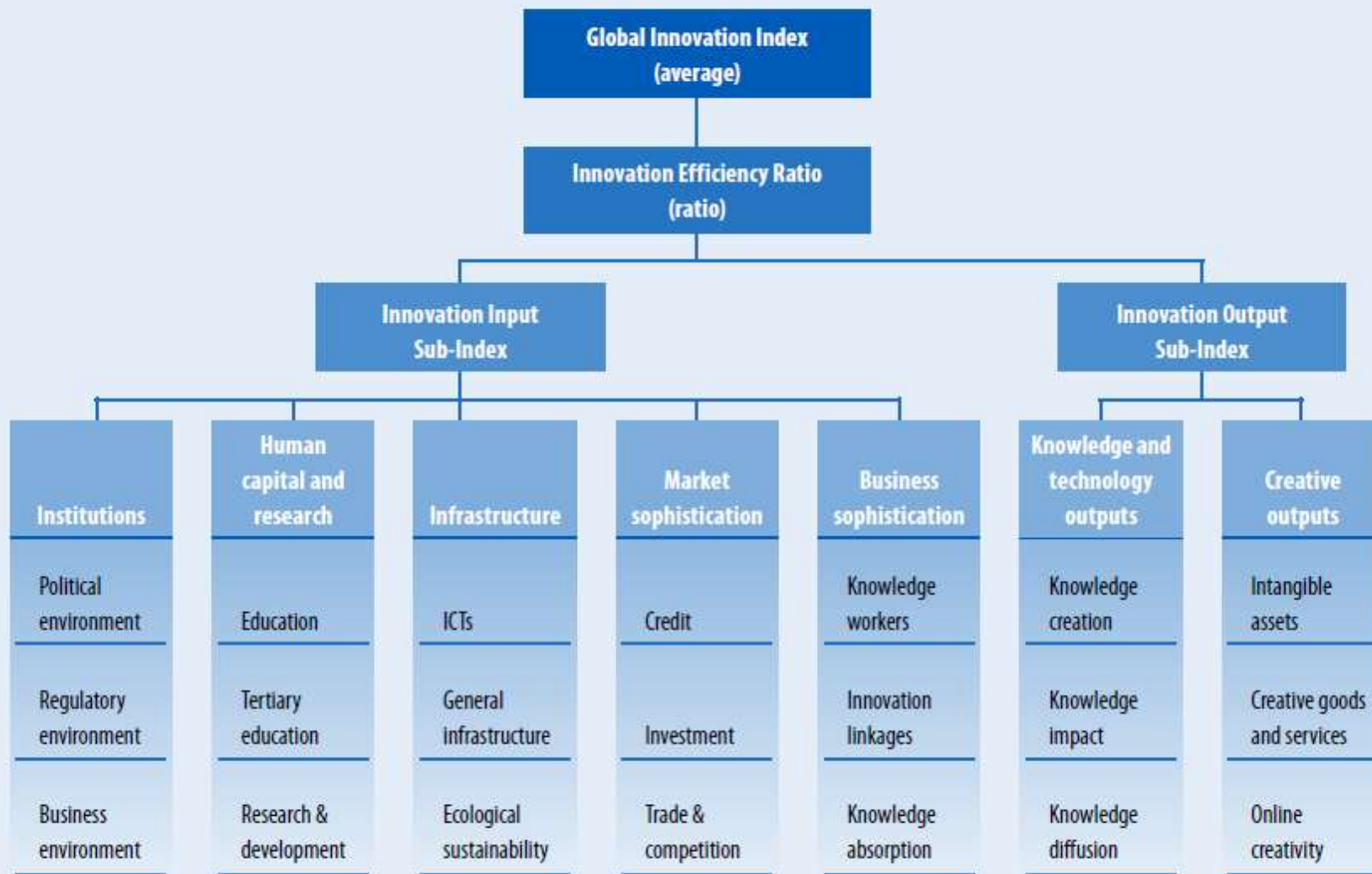
04. Similar mechanisms with Eastern Partnership Countries

Global Innovation Index

- Collaboration between Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO).
- Addresses the Human Factor in Innovation.
- Tool for action' for decision makers aiming to improve countries' innovation performances.
- Explores the role of the individuals and teams behind the innovation process.
- Covers 143 economies around the world and uses 81 indicators across a range of themes. Including **Eastern Partnership Countries**.



04. Similar Mechanisms in EaP



Global Innovation Index

Results from the Global Innovation Index of Eastern Partnership Countries:

Country/ Economy	Score (0–100)	Rank		Efficiency Ratio	Rank
Azerbaijan	29.60	101		0.58	120
Armenia	36.06	65		0.83	28
Belarus	37.10	58		0.83	27
Georgia	34.53	74		0.68	90
Moldova, Republic of	40.74	43		1.07	1
Ukraine	36.26	63		0.90	14

Global Innovation Index

Azerbaijan		Armenia		Belarus	
Main Strengths	Rank	Main Strengths	Rank	Main Strengths	Rank
Ease of starting a business	13	Ease of starting a business	6	Tertiary enrolment, % gross	4
Ease of protecting investors	21	Ease of protecting investors	21	Gross capital formation, % GDP	6
ICT use	48	Domestic resident patent app./tr PPP\$ GDP	16	Domestic resident patent app./tr PPP\$ GDP	6
Microfinance gross loans, % GDP	15	Comm., computer & info. services exp., % total trade	23	Domestic res utility model app./tr PPP\$ GDP	1
FDI net outflows, % GDP	8	Domestic res trademark app./bn PPP\$ GDP	15	Domestic res trademark app./bn PPP\$ GDP	9

Global Innovation Index

Georgia		Moldova, Republic of		Ukraine	
Main Strengths	Rank	Main Strengths	Rank	Main Strengths	Rank
Cost of redundancy dismissal, salary weeks	1	Non-agricultural mkt access weighted tariff, %	1	Domestic res utility model app./tr PPP\$ GDP	1
Ease of starting a business	4	Domestic res utility model app./tr PPP\$ GDP	1	GERD financed by abroad, %	17
Applied tariff rate, weighted mean, %	6	Expenditure on education, % GDP	4	Tertiary enrolment, % gross	11
Ease of getting credit	3	Domestic res trademark app./bn PPP\$ GDP	1	Domestic resident patent app./tr PPP\$ GDP	15
Pupil-teacher ratio, secondary	2	Madrid trademark app. holders/bn PPP\$ GDP	1	Ease of getting credit	13

HEADQUARTERS

SPI PORTO

Avenida Marechal Gomes da Costa, 1376
4150-356 Porto - PORTUGAL
e-Mail: spiporto@spi.pt
P: +351 22 607 64 00
F: +351 22 609 91 64
www.spieurope.eu



www.spieurope.eu

EUROPE

PORTUGAL

SPI PORTO & SPI VENTURES
Avenida Marechal Gomes da Costa, 1376
4150-356 Porto - PORTUGAL
e-Mail: spiporto@spi.pt
P: +351 22 607 64 00
F: +351 22 609 91 64
www.spi.pt | www.spi-ventures.com

SPI COIMBRA
Instituto Pedro Nunes - R. Pedro Nunes, Ed.D
3030 - 199 Coimbra - PORTUGAL
e-Mail: spicentro@spi.pt
P: + 351 239 09 08 54
F: + 351 239 09 08 55
www.spi.pt

SPI LISBON
Avenida 5 de Outubro, n.º 12,
4º Direito, 1050-056 Lisboa - PORTUGAL
e-Mail: spi@lisboa@spi.pt
P: + 351 21 421 22 49
F: + 351 21 421 12 01
www.spi.pt

SPI AZORES
Avenida Príncipe do Mónaco, Bloco 5, 2º Dnt
9500-236 Ponta Delgada - PORTUGAL
e-Mail: spiacores@spi.pt
P: +351 22 607 64 00
F: +351 22 609 91 64
www.spi-acores.pt

SPAIN

SPI SANTIAGO DE COMPOSTELA
CEN, Despacho 15, Rua Oliveira 568
15895 Milladoiro, A Coruña - SPAIN
e-Mail: spi@spiconsultoria.es
P: +34 981 535 927
F: +34 981 535 919
www.spiconsultoria.es

BELGIUM

EBN - BRUSSELS
Avenue de Terwuren, 1688
1150 Brussels - BELGIUM
e-Mail: ebn@ebn.be
P: +32 2 772 89 00
F: +32 2 772 95 74
www.ebn.be

NORTH AMERICA

UNITED STATES OF AMERICA

SPI CALIFORNIA
2522 Chambers Rd.,
Suite 204
Tustin CA 92780 - USA
e-Mail: spiusa-irvine@usaspi.com
P: +1 714 5 73 40 62
www.usaspi.com

SPI WASHINGTON D.C.
1050 17th Street, NW,
Suite 600
Washington DC 20036 - USA
e-Mail: spiusa-washington@spiksa.com
P: +1 202 87 29 90
www.usaspi.com

ASIA

CHINA

SPI BEIJING
1626B, Floor 16, Tower A, Top Electronic City, No.3
Haidian Avenue, Haidian District, Beijing - CHINA
e-Mail: spichina@spi.pt
P: +86 105 982 21 43/45
F: +86 105 982 21 44
www.spi-china.cn

SPI MACAO
Avenida da Praia Grande, nº 759, 5ª andar
Macao - CHINA
e-Mail: spichina@spi.pt
P: +86 105 982 21 43/45
F: +86 105 982 21 44
www.spi-china.cn

SINGAPORE

SPI SINGAPORE
Science Park Road
Block/Building No 21, Unit No# 02 - 02
The Aquarius - SINGAPORE
Singapore Science, 117628
P: +65 67 74 40 48
www.spieurope.eu

Member States' growth performance

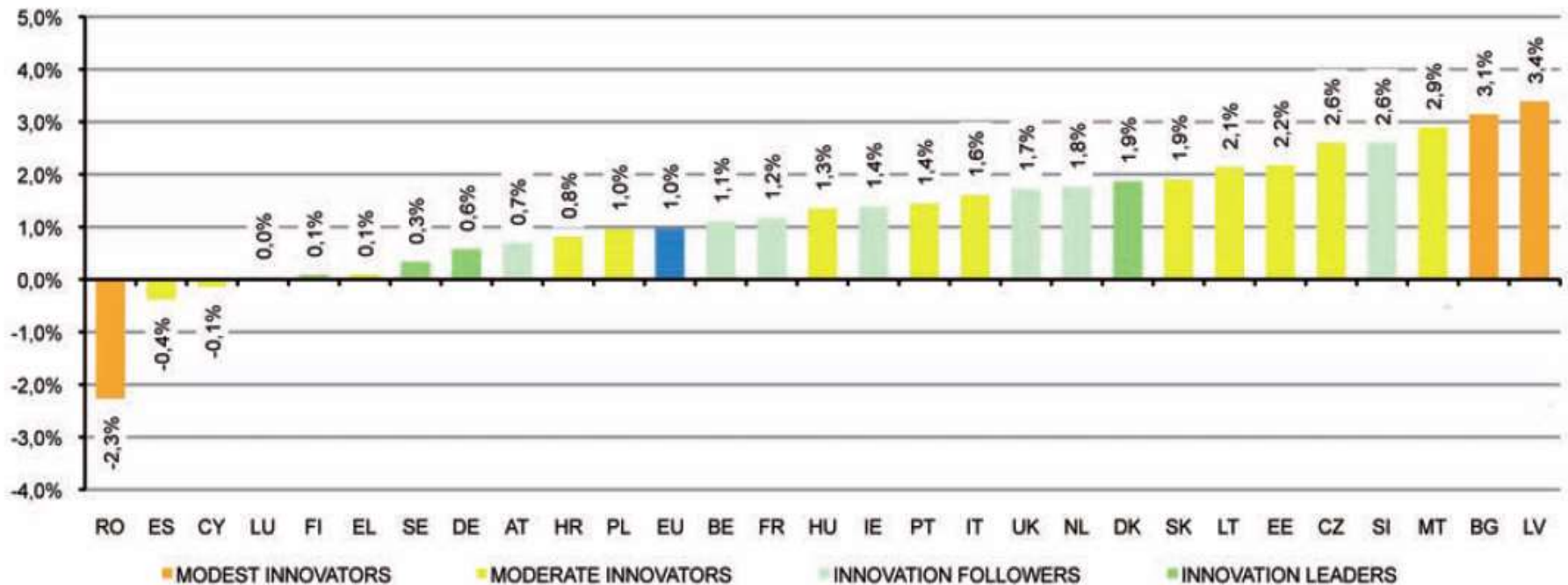


Figure 3. EU Member States' growth performance

Benchmarking innovation performance with non-EU countries

Global Competitors

- IUS 2015 takes into consideration of the EU's main global economic partners including **Australia, the BRICS countries (Brazil, Russia, India, China and South Africa), Canada, Japan, South Korea and the United States.**
- South Korea, the US and Japan have a performance lead **over** the EU.
- The performance lead has been increasing for South Korea as its **growth over 2007-2014 has been more than double that of the EU.**
- Innovation performance for the EU has been improving at a higher rate than that for the US and Japan. As a consequence, **the EU has been able to close almost half of its performance gap with the US and Japan since 2008.**

Benchmarking innovation performance with non-EU countries

Global Competitors (cont.)

- South Korea, the US and Japan outperform the EU in the following indicators: R&D expenditures in the business sector, Public-private co-publications and PCT patents, and educational attainment as measured by the Share of population having completed tertiary education.
- EU continues to have a performance lead over **Australia, Canada and all BRICS countries (Brazil, Russia, India, China and South Africa)**.
- Among these countries, only **China** has managed to grow at a higher rate than the EU.
- EU has become more innovative and is closing its innovation gap with the United States and Japan.

Benchmarking innovation performance with non-EU countries

Global Competitors (cont.)

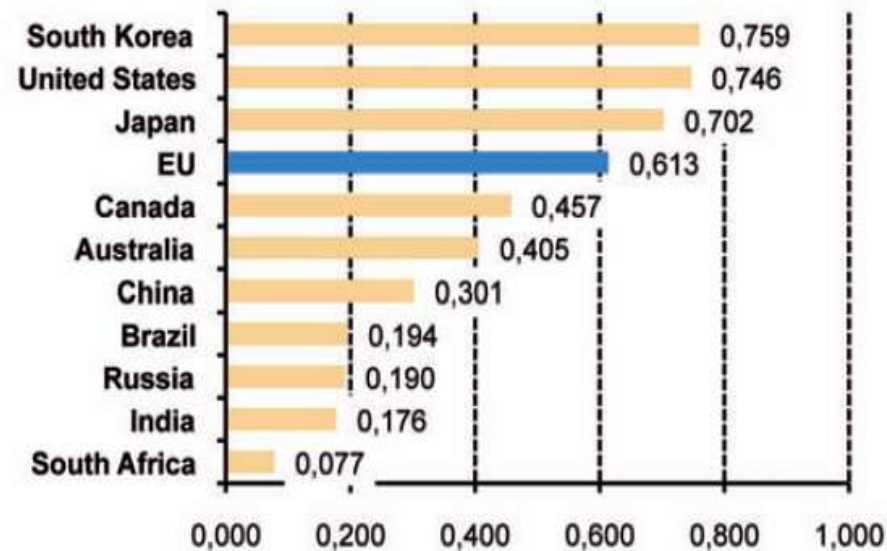


Figure 5. Global innovation performance

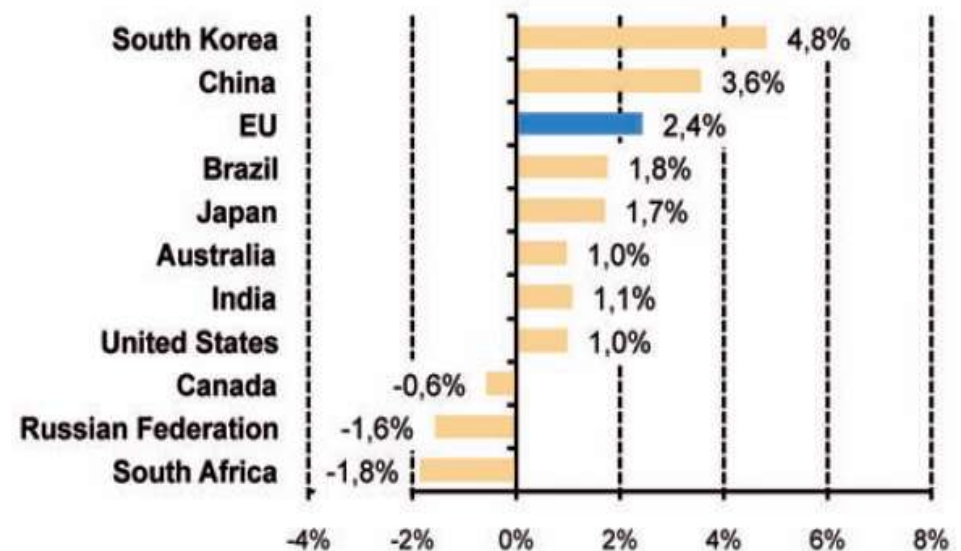
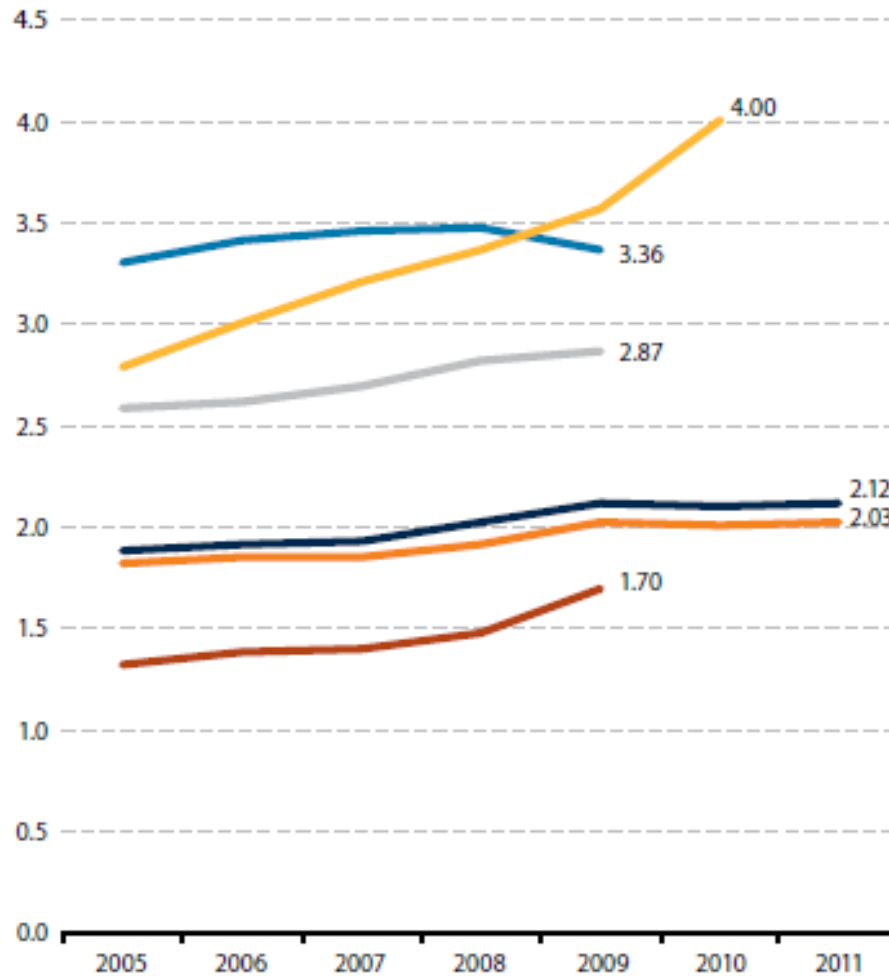


Figure 6. Global innovation growth rates

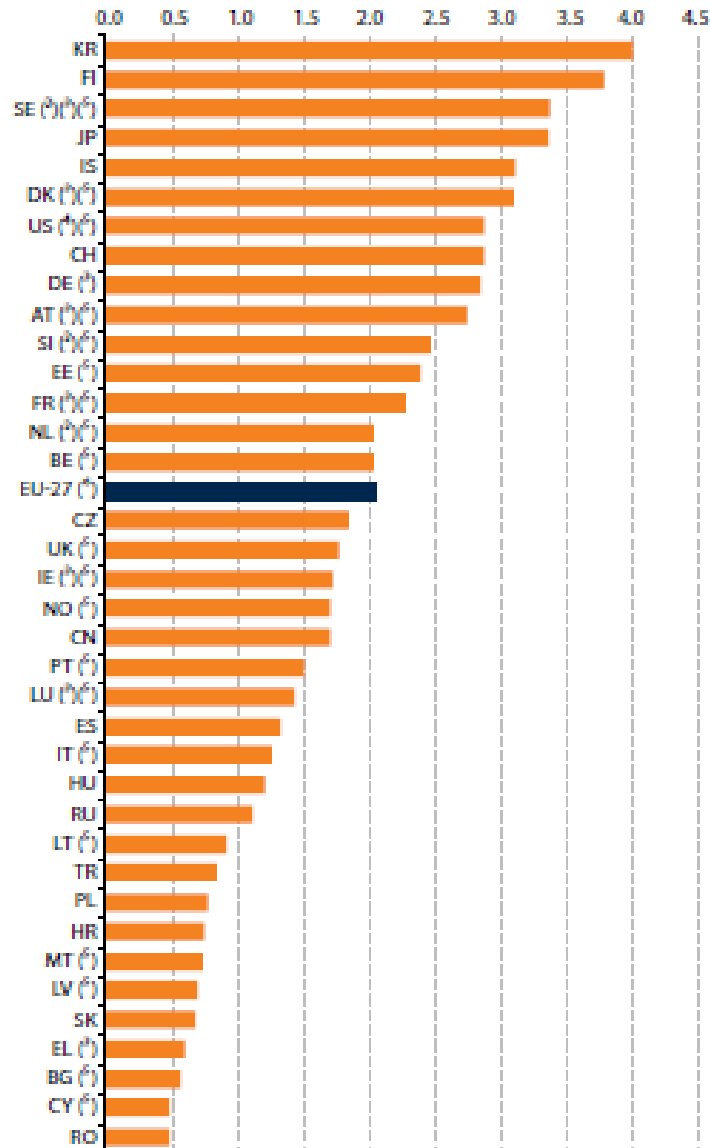
GERD - Gross domestic expenditure on R & D

- Gross domestic expenditure on R&D (GERD) includes expenditure on research and development by business enterprises, higher education institutions, as well as government and private non-profit organisations.

GERD - Gross domestic expenditure on R & D

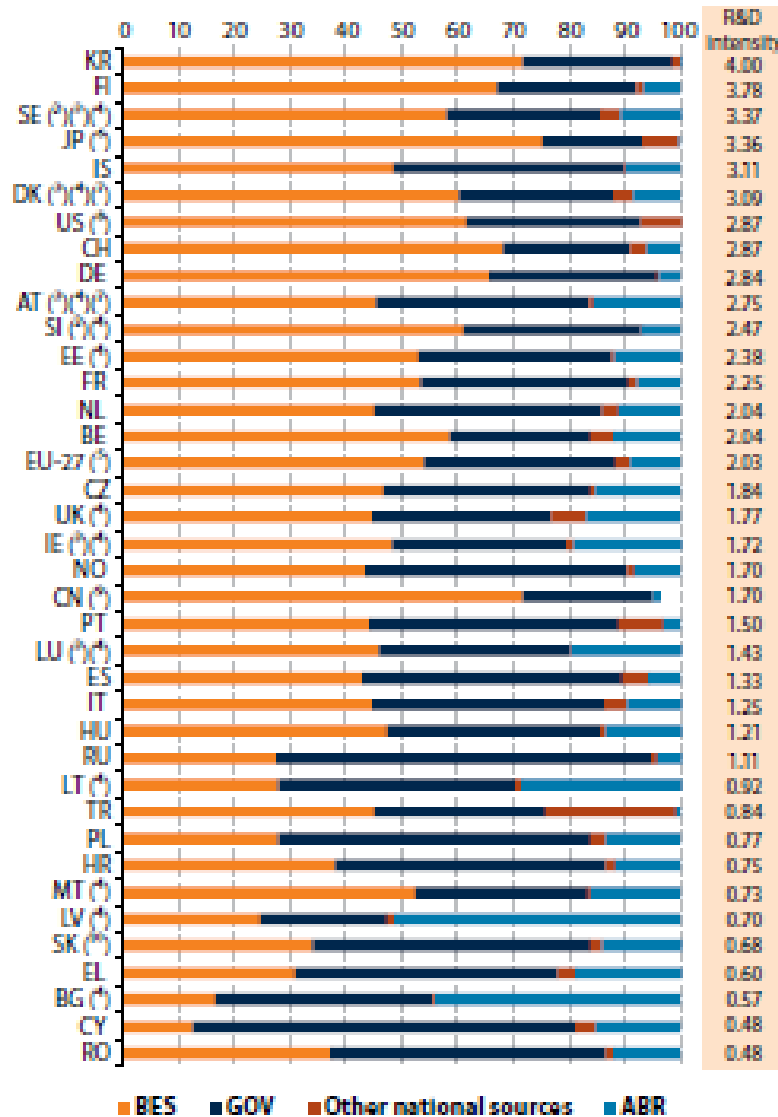


GERD - Gross domestic expenditure on R & D



03. Innovation Union Scoreboard 2015 Report

R&D expenditure by source of funds as a percentage of total



BES - business enterprise sector

GOV - government sector

ABR - abroad