

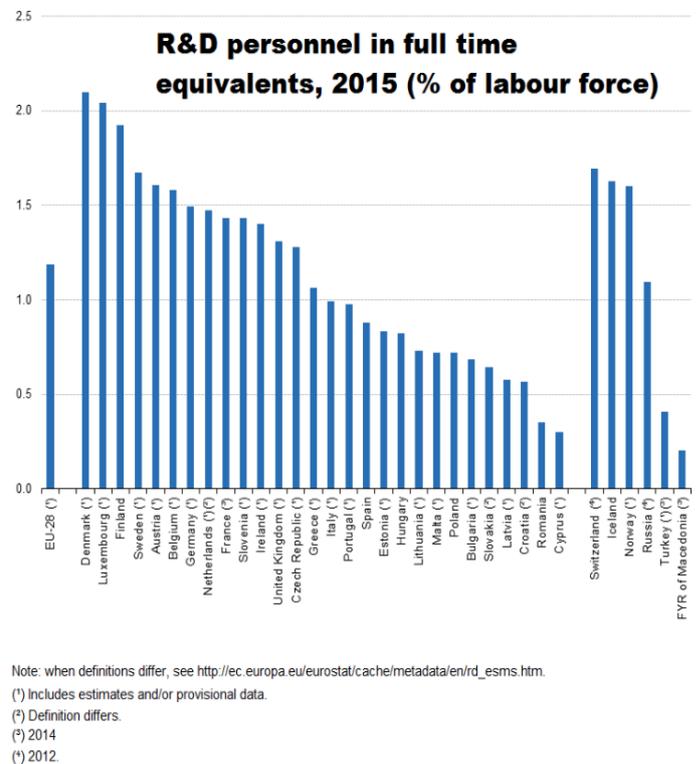
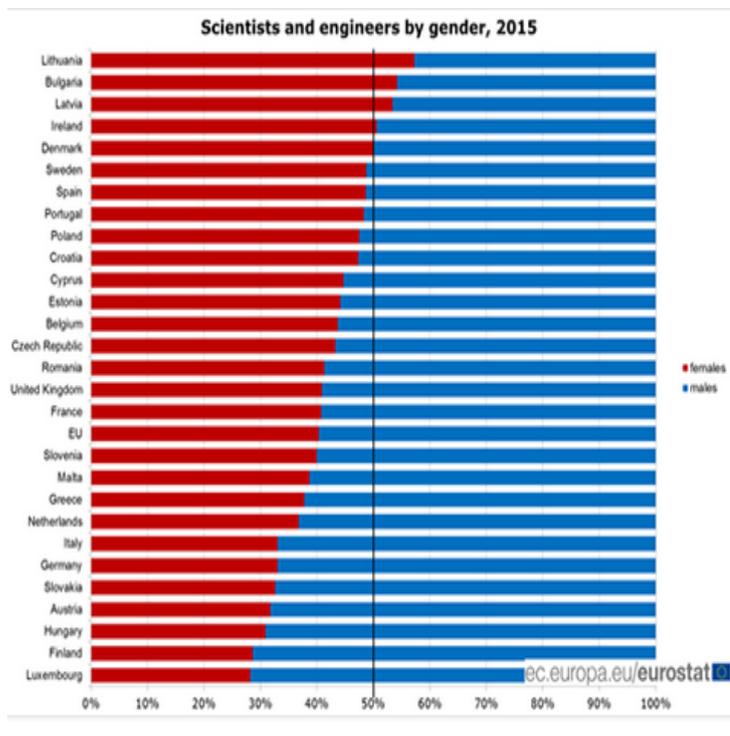
NEWSLETTER on STI Data and Indicators

DG RTD, A4, Analysis and monitoring of national research policies

1. Eurostat data on scientists and engineers and on R&D personnel

On 11 February 2017, the *International Day of Women and Girls in Science*, Eurostat published the graph below on Facebook (Eurostat is since 10 January 2017 on Facebook). In 2015 Lithuania had the highest representation of female scientists and engineers in the EU, followed by Bulgaria, Latvia and Ireland, all of which have female shares of above 50%, while Denmark is close to 50%. Finland and Luxembourg have the lowest shares of females (less than 30%) among scientists and engineers. Of the 17 million scientists and engineers in the EU about 60% are male and 40% female.

On 28 February 2017 Eurostat published another R&D related graph on Facebook (see below), showing R&D personnel as % of the labour force. Denmark has the highest share (over 2%), followed by Luxembourg (R&D personnel share is lower if total employment, incl. border crossing commuters, is taken into account) and Finland. Romania and Cyprus have the lowest shares of R&D workers in the labour force. In the EU R&D personnel (in FTE) represents about 1.2% of the labour force.



(**Graphs:** this and other sections: screenshots from corresponding website, unless indicated otherwise)

More info: <https://www.facebook.com/EurostatStatistics/>

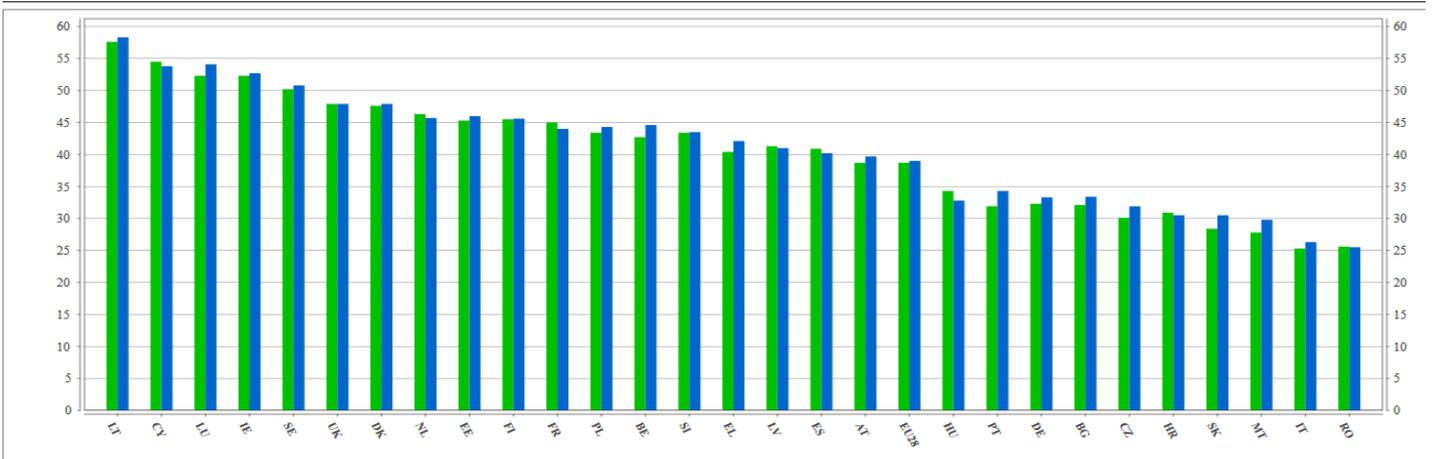
2. Eurostat provisional data on tertiary attainment 2016

On 28 February 2017 Eurostat published provisional data on educational attainment for the year 2016 (based on results of three quarters of 2016 and one quarter of 2015, **blue column in graph, 2015: green column**). With regard to the European headline target on tertiary attainment, the data show that progress has somewhat decelerated. While tertiary attainment of 30-34 year olds in the EU progressed by about 1 percentage point per year since 2010, in 2016 it progressed by only 0.3 percentage points. At 39% in 2016 the 40% target is, however, still within reach. In

2016 Lithuania had the highest attainment (58.3%), followed by Cyprus, Luxembourg, Ireland and Sweden (all with tertiary attainment levels of over 50%). Malta, Italy and Romania in 2016 showed the lowest attainment levels in the EU (below 30%). Portugal was the EU country where attainment improved most in 2016 (by more than 2 percentage points). At EU level the attainment of females (43.8%) is nearly 10 percentage points higher than that of males. Latvia shows the biggest gender gap (females 54.8%, males 27.8%) while Germany shows the lowest.

Tertiary educational attainment by sex, age group 30-34

%
The indicator is defined as the percentage of the population aged 30-34 who have ... [more](#)

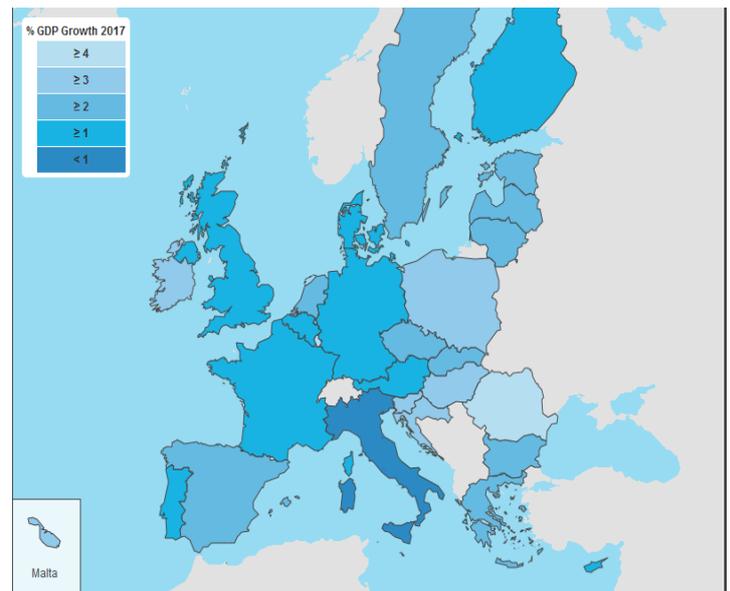


More info: <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

3. Commission winter 2017 economic forecast

On 13 February 2017 the *Commission* (DG ECFIN) published the **Winter 2017 Economic Forecast**. GDP growth in the EU as a whole is forecast to slow down from 1.9% in 2016 to 1.8% in 2017 and to remain at 1.8% in 2018 (autumn forecast: 2017: 1.6%, 2018: 1.8%). The EU unemployment rate is forecast to decline from 8.5% in 2016 to 8.1% in 2017 and to 7.8% in 2018. Inflation is forecast to accelerate from 0.2% in 2016 to 1.7% in 2017 and then to decline to 1.4% in 2018. The budget balance is forecast to improve from -1.7% in 2016 to -1.4% in 2017 and 2018.

In 2017 Romania's GDP is forecast to grow fastest (4.4%), followed by Luxembourg (4.0%) and Malta (3.7%), while Greece (2.7%) is expected to grow faster than the EU average. The slowest growth is expected for Italy (0.9%) and Finland (1.2%). In 2018 Luxembourg is forecast to have the fastest growth (3.9%), followed by Romania (3.7%) and Malta (3.7%). According to the forecast Italy and the UK will be the EU countries with the slowest growth in 2018.



More info: https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/winter-2017-economic-forecast_en

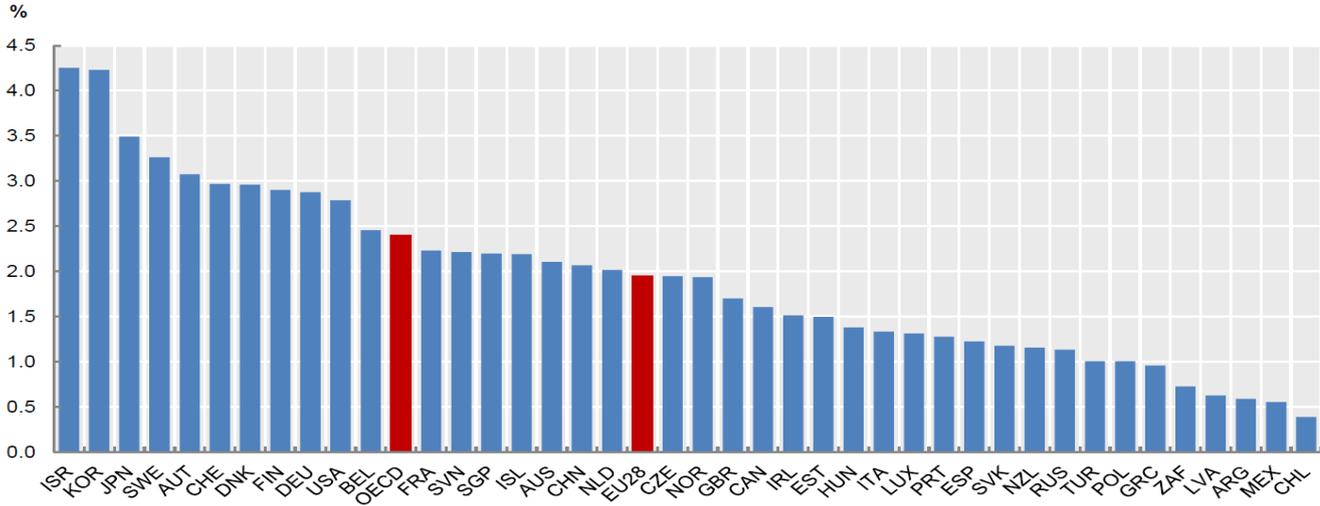
4. OECD update of R&D expenditure data

In February 2017 the *OECD* updated its **main science and technology indicators**, including R&D expenditure data, with 2015 results. The data show that R&D intensity (expenditure on R&D as a percentage of GDP) remained stable across OECD countries at 2.4% in 2015.

Israel overtook South Korea as the country with the highest Research and Development (R&D) intensity (4.25% compared to 4.23%).

R&D intensity, 2015

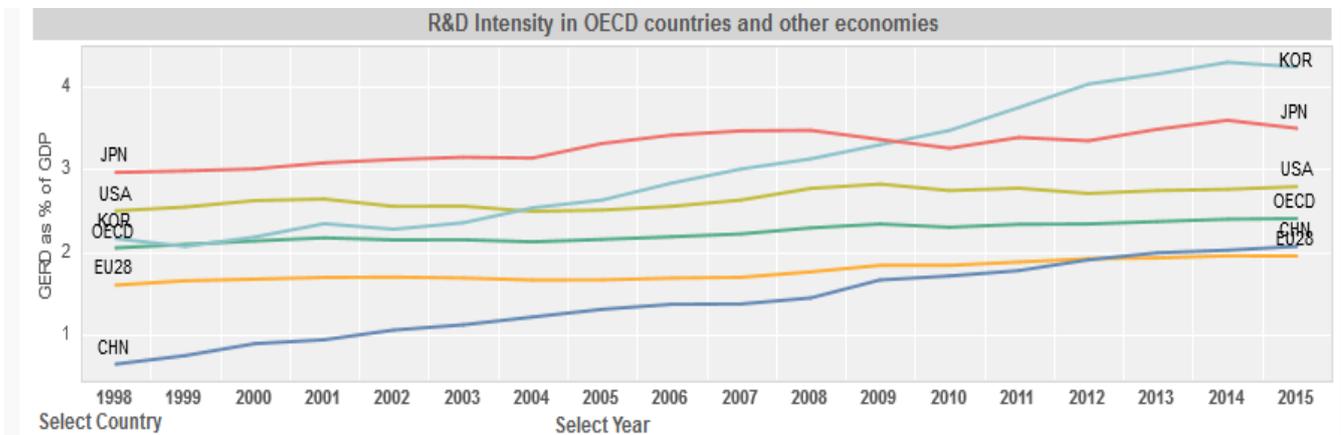
OECD countries and select non-member economies



R&D intensity in 2015 plateaued in the EU area (the OECD shows EU R&D intensity at 1.95%. The corresponding Eurostat value is 2.03%. The difference is due to different calculation methodologies.), rose marginally to 2.79% in the United States, and slightly declined in Japan to 3.49%. Meanwhile, China continued its steady increase, reaching 2.07% in 2015.

According to the OECD 'Government-financed R&D has declined (in real, PPP terms) by 2.4% since 2010, when it accounted for 31% of total OECD R&D expenditures, falling to 27% by 2014. The latest government budget data, which present information on amounts allocated for R&D rather than actual expenditure on R&D, showed that government budgets for R&D fell by 0.2% in 2015 (in real terms). The outlook for 2016 is mixed, with the United States showing fairly strong growth, Japan showing a decline, and the aggregate movement for the other OECD countries being broadly flat'.

In OECD countries, real expenditure on R&D grew by 2.3% in 2015. The Business Enterprise sector (+2.5%), which represents 68.8% of total R&D in the OECD in 2015, showed the fastest growth, while real R&D expenditure grew by 2.1% in the Higher Education sector and by 1.8% in the Government sector.

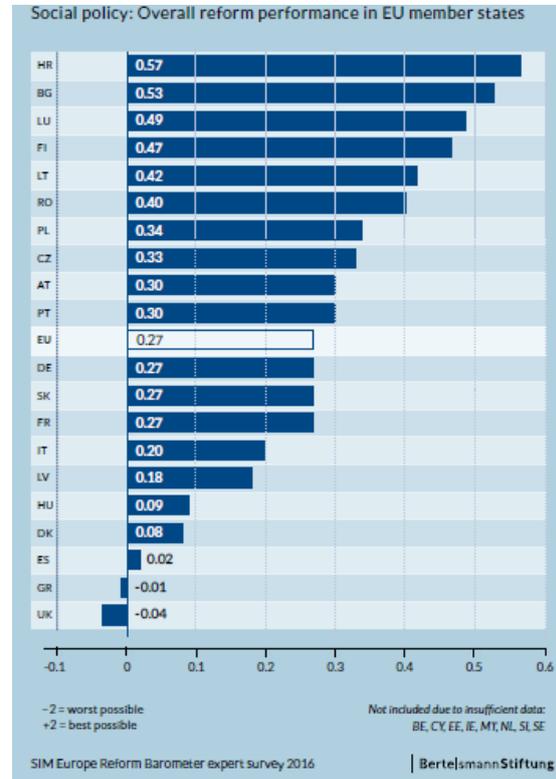
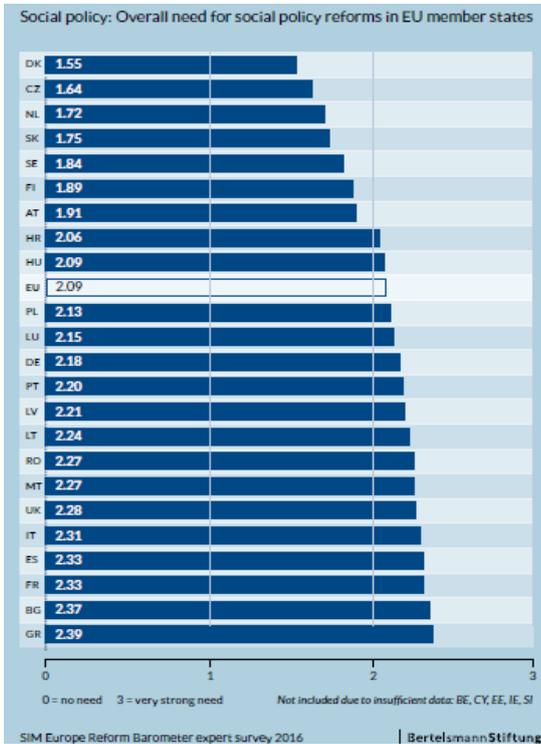


More info: <http://www.oecd.org/sti/msti.htm>

5. Bertelsmann Social Policy Reform index 2016

In January 2017 the *Bertelsmann Foundation* published the 2016 **Social Policy Reform Barometer**. This barometer assesses the reform dynamics of social policy in the EU member states based on inputs from over 1,000 experts from across Europe. Experts had to rate on a scale from 0-3 whether there was no need at all to improve the situation or a very strong need. Then there were questions on whether policy reforms had been introduced and what the quality of these reforms were.

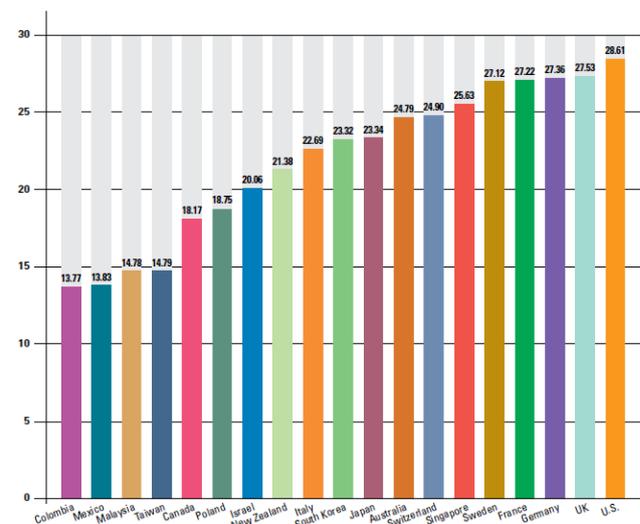
Denmark came out as the EU Member State with the lowest overall need for reform, followed by the Czech Republic and the Netherlands. The need for social policy reforms was considered by experts to be highest in Bulgaria and Greece. As regards the overall performance (reform activity plus reform quality), Croatia performed best in 2016, followed by Bulgaria. Spain, Greece and the UK had the lowest levels of performance.



More info: http://www.social-inclusion-monitor.eu/uploads/tx_itao_download/BSt_SIM_Reform-Barometer2016_WEBrev3.pdf

6. US Chamber of Commerce International IP index

The **United States Chamber of Commerce** released in February 2017 its fifth annual **International IP Index**. The index is based on 30 indicators spread across six categories: Patents, Copyrights, Trademarks, Trade Secrets, Enforcement, and International Treaties. The index assesses 38 countries, including 6 EU Member States. In the latest index the United States, which according to the report excels at promoting IP-intensive industries in many ways, scores highest, followed by the UK, Germany, France and Sweden. Italy (ranked 11) and Poland (14) are the two other EU countries assessed. Japan occupies rank 9, Russia 20 and China 22. The two lowest ranked countries are India, despite improvements in IP protection, and Venezuela. The analysis in the report makes the case for the positive impact of intellectual property on economies.



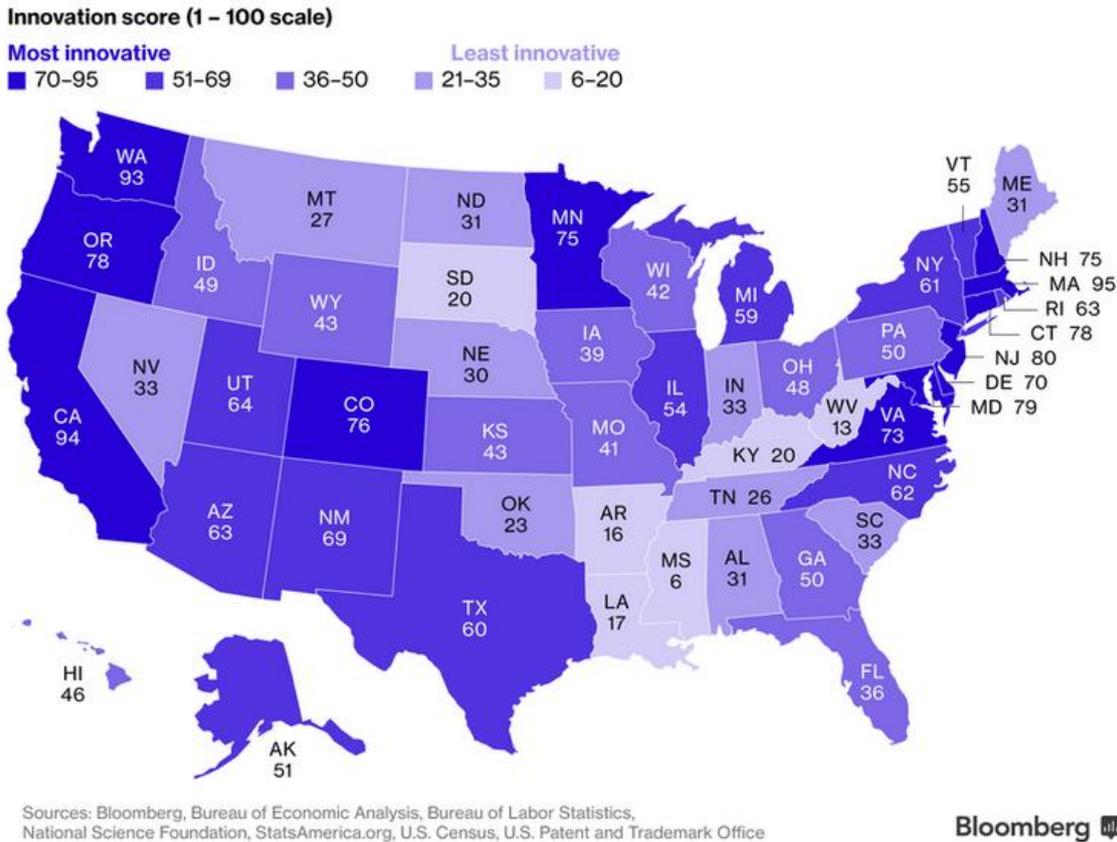
More info: <http://www.theglobalipcenter.com/gipcindex/>

6. Miscellaneous results from national data sources and studies

USA: Bloomberg 2016 U.S. State Innovation Index

On 22 December 2016 *Bloomberg* published the **2016 U.S. State Innovation Index**. The index assesses each of the 50 US states on a 0-100 scale across six equally weighted metrics: R&D intensity; productivity; high-tech density; concentration of science, technology, engineering and mathematics (STEM) employment; science and engineering degree holders; and patent activity.

Massachusetts came out first. The good performance of this state is explained by a mix of tax incentives to draw in companies, research partnerships between its universities (including big name institutions such as Harvard and MIT) and local businesses, and the transfer of a high share of research into patentable products. California (Silicon Valley) ranks second and the state of Washington (where Microsoft is headquartered) third. Lowest performers are West Virginia and Mississippi.



More info: <https://www.bloomberg.com/news/articles/2016-12-22/here-are-the-most-innovative-states-in-america-in-2016>

7. People

Hans Rosling (1948-2017)

On 7 February 2017 Swedish physician and statistician Hans Rosling died of cancer, aged 68. Rosling was professor at the Swedish Karolinska Institute and co-founder and chairman of the Gapminder Foundation, which developed the Trendalyzer software (which is now freely available from Google) for presenting statistical data. Rosling used this software and data from international sources such as the UN and the World Bank to explain the world with graphics. His presentations, including TED conference talks, became very popular and a model for presenting statistical data in a lively and interesting way. In 2012 TIME magazine included him in the list of world's 100 most influential people.

More info (links to videos showing Rosling presentations):

<https://www.youtube.com/watch?v=jbkSRLYS0jo>

<https://www.youtube.com/watch?v=hVimVzqtD6w>



Calendar of data releases and indicator based publications			
<i>Update of: 28/2/2017 (grey= already published)</i>			
2017	Eurostat data updates	Commission indicator based reports	Data and indicator based reports of other organisations
January			Transparency International Corruption Perception Index Bloomberg Innovation Index
February	Tertiary attainment (2016, prov.) High growth enterprises data (provisional, 2015)	Winter forecast (ECFIN)	OECD R&D expenditure data Excelacom Internet Minute
March	R&D intensity (2015 update) GBAORD final (2015) IPR (patent 2014, CTM 2015 and RCD 2015)	DESI indicator (CNECT)	European Patent Office , EPO annual results (2016) Reuters Most Innov. Institutions OICA world motor vehicle production data
April	Education headline indicators (LFS)		
May	High-tech trade (2016) Venture capital (2016) Education enrolment, graduates Knowledge-int. activities (2016)	Spring Forecast (ECFIN) Skills forecast (Cedefop)	Invest Europe European Private Equity Report Times Higher Ed. Reputations Ranking IMD World Competitiveness Yearbook
June	Education spending Employment high-tech (2016) HRST education inflows (2015)	Europe 2020 publication (ESTAT) Innovation Union Scoreboard (GROW/RTD)	
July	IPR (Patents, 2014), Community Trademarks (2016), RC Designs (2016)		UNESCO UIS STI stats release
August			Academic Ranking of World Universities (Shanghai) WIPO/Cornell/INSEAD Global Innovation Index
September	GBAORD (2016 preliminary) Final high growth ent. data (2015) Economic data on high-tech (2016)		WEF Global Competitiveness Index OECD Education at a Glance
October			World Bank Doing Business
November	R&D intensity (2016 preliminary, 2015 final) Knowledge-int. activities (2016) Employment high-tech (2016) IPR Statistics (CTM 2016 and RCD 2016)	Autumn Forecast (ECFIN) Education Monitor (EAC) Annual Growth Survey (ECFIN)	Top500.org: Top 500 Supercomputer list
December	ICT household data (2016) ICT enterprise data (2016) HRST stocks (2016)	Industrial R&D Investment Scoreboard (JRC) Joint Employment Report (EMPL)	WIPO World Intellectual Property Indicators OECD STI Scoreboard (2-yearly)

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