



European Commission

Issue February 2018

NEWSLETTER on STI Data and Indicators

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

1. Eurostat data on the distribution of scientists and engineers by gender

To mark the International Day of Women and Girls in Science (11 February), Eurostat published on 10 February a chart showing the distribution of scientists and engineers in Member States.

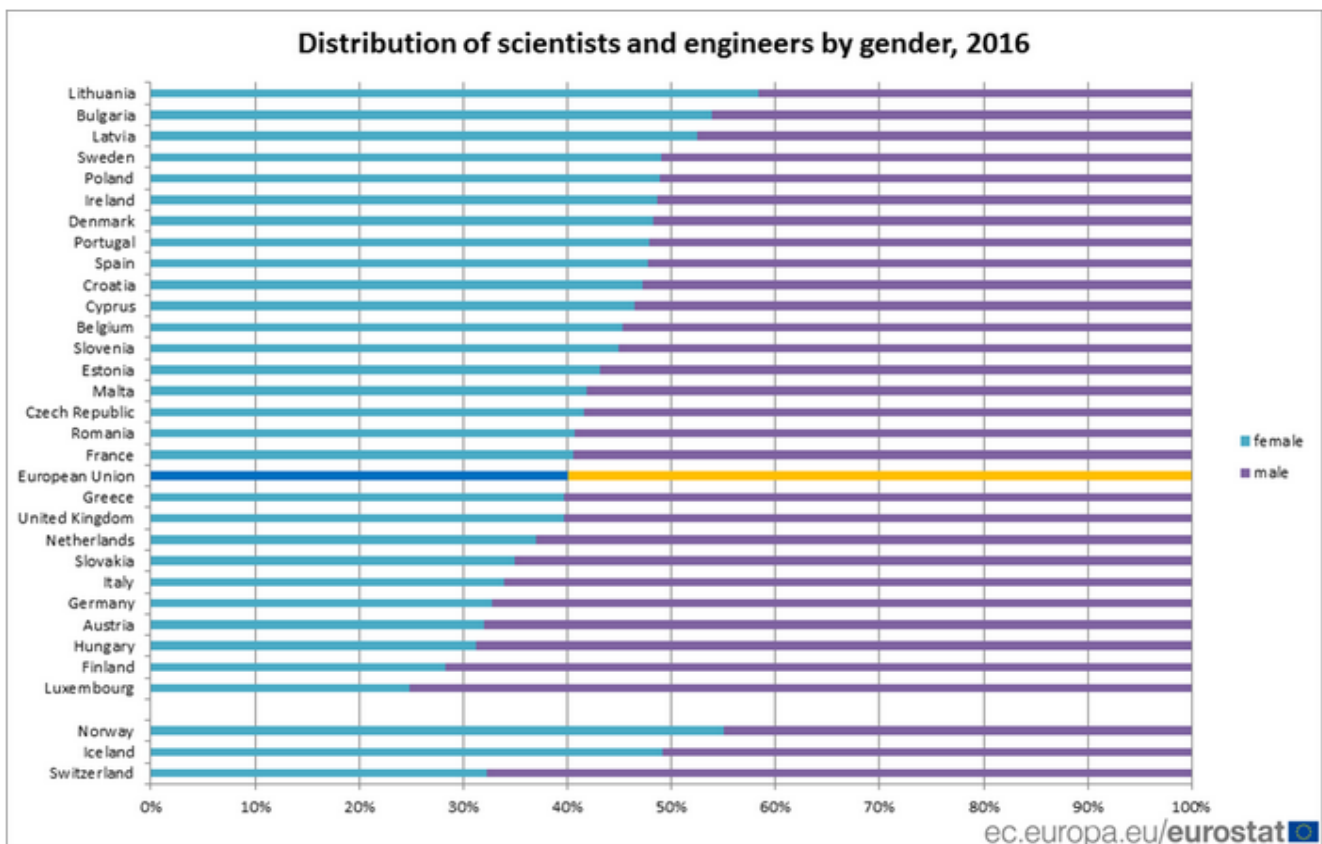
According to Eurostat

'In 2016, from the 17 million scientists and engineers in the EU, 60% were men and 40% women. Men were particularly overrepresented in manufacturing (83% of scientists and engineers in manufacturing were male), while the services sector was more balanced (55% male and 45% female).

However, in three EU Member States, the majority of scientists and engineers were women: Lithuania (58%), Bulgaria (54%), and Latvia (52%).

Less than one third of scientists and engineers were women in Luxembourg (25%), Finland (28%), Hungary (31%), Austria (32%), and Germany (33%).

Outside the EU, Norway and Iceland have a relatively high share of female scientists and engineers, while Switzerland has a low share. As regards scientists the female share in South Korea and Japan is lower than in any EU country.



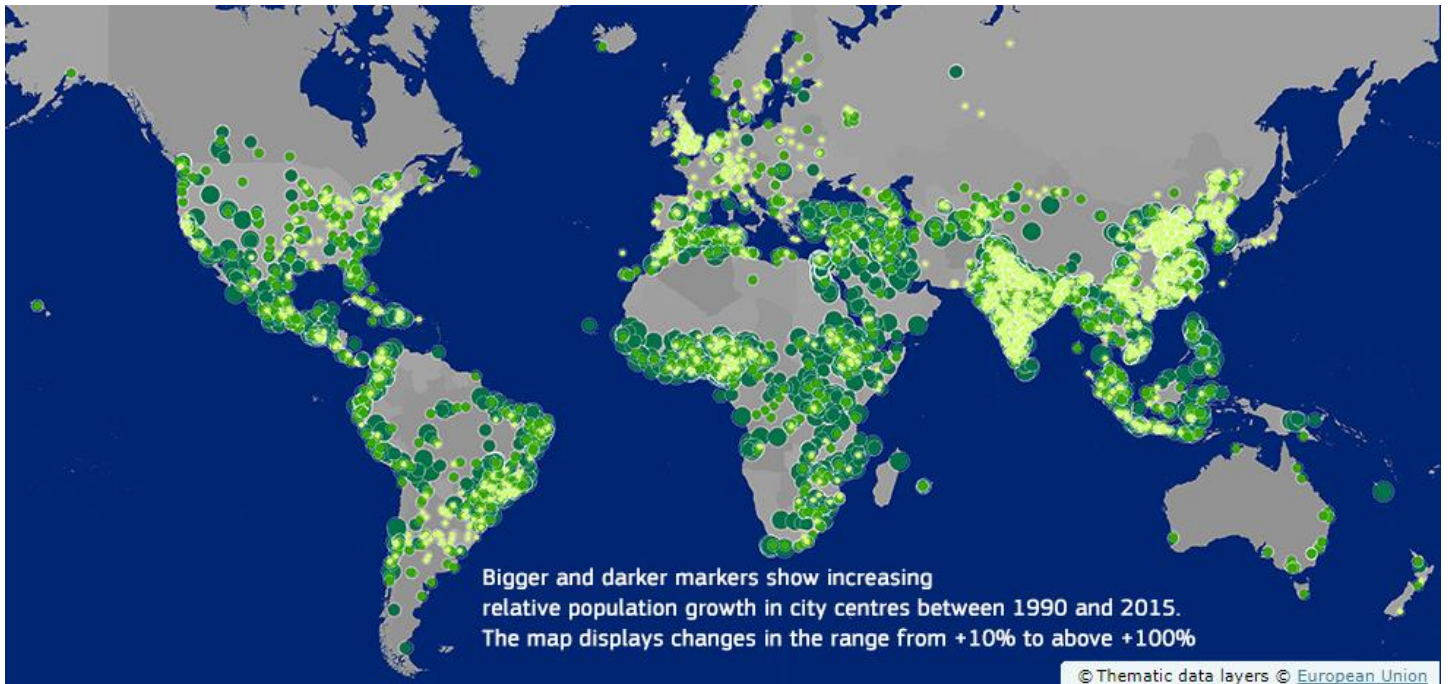
More info: <http://ec.europa.eu/eurostat/web/products-eurostat-news/-/EDN-20180210-1?inheritRedirect=true&redirect=%2Fproducts-eurostat-news%2Fwhats-new>

2. Commission launches world's largest city database

In February, the Commission (JRC) launched the world's largest city database.

The new tool, developed by the JRC, has data on all high-density areas of at least 50,000 inhabitants, that is 10,000 urban centres across the globe. It is the most comprehensive database on cities ever published. The data derived from the JRC's Global Human Settlement Layer (GHSL) provide new insights and for example show that the world has become more urbanised than previously thought. Between 1990 and 2015, the

population of urban areas in Africa doubled, while it grew by 1.1 billion in Asia. The data show that globally, more than 400 cities have a population of between 1 and 5 million. More than 40 cities have 5 to 10 million people, and there are 32 'megacities' with above 10 million inhabitants. The data also show some encouraging environmental trends: cities became 25% greener between 2000 and 2015. Air pollution in urban centres was increasing from 1990, but between 2000 and 2015, the trend has been reversed.



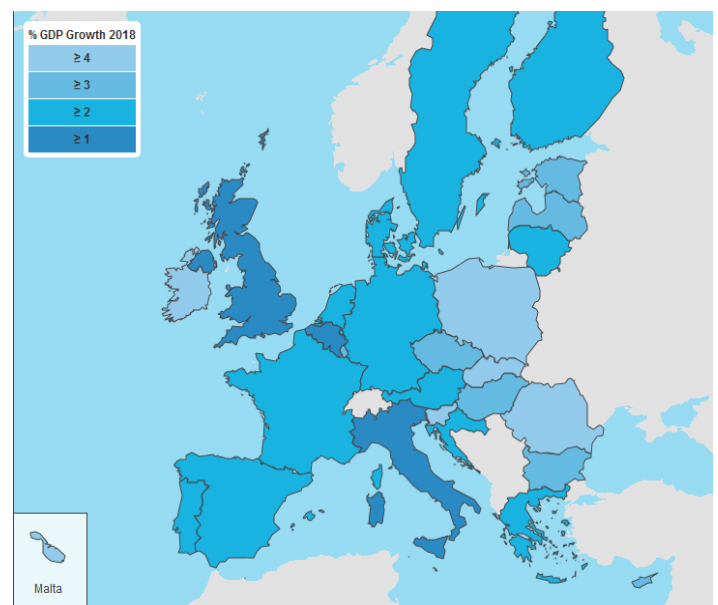
More info: <http://ghsl.jrc.ec.europa.eu/ccdb2016Overview.php>

3. Commission's Winter 2018 Economic Forecast

On 7 February 2018 the *Commission* (DG ECFIN) published the *Winter 2018 Economic Forecast*.

GDP growth in the EU as a whole is expected to be higher than earlier forecasts, at 2.4% in 2017, 2.3% in 2018, and 2.0% in 2019 (both for the Euro zone and the EU). Inflation in the EU is forecast to remain stable, at 1.6 % in 2017 and in 2018 and at 1.7% in 2019 (similar figures for the Euro zone).

In 2017 Ireland's GDP grew fastest (7.3%), followed by Malta (6.9%), and Romania (6.7%), while Greece (1.6%) and Italy (1.5%) had the slowest growth. In 2018 Malta is forecast to have the fastest growth (5.6%), followed by Romania (4.5%) and Ireland (4.4%), whilst Italy (1.5%) and the UK (1.4%) will have the slowest growth. In 2019 Malta (4.5%), Slovakia (4.2%) and Romania (4.0%) are expected to grow fastest, while Italy (1.2%) and the UK (1.1%) are again forecast to grow slowest.



More info: https://ec.europa.eu/info/business-economy-euro/economic-performance-and-forecasts/economic-forecasts/winter-2018-economic-forecast_en

4. Times Higher Education Asia University Ranking 2018

On 6 February *Times Higher Education* (THE) released its *Asia University Ranking 2018*. The ranking is based on the 12 indicators which are also used for THE's general university ranking (staff to student ratio, PhDs awarded to academic staff ratio, PhDs to bachelor ratio, International student percentage, international staff percentage, institutional income, industry income per staff member, papers per staff member, teaching reputation, research reputation, research income per staff member, citations). It should be noted that the indicators on internationalisation are biased towards small countries/territories, contributing to the good performance of Singapore and Hong Kong universities, whilst reputation related indicators are subjective and biased towards better known institutions.

Just over 350 Asian universities have been ranked, including institutions from Israel and Turkey. Japan has the highest number of institutions on the list (89), followed by (mainland) China (63). Top ranked institution in Asia is the National University of Singapore, followed by Tsinghua University (China) and Peking University. Hong Kong has the highest number of universities (3) within the top 10, followed by Singapore, South Korea and China (2 each). Japan on the other hand has only one institution in the top 10. When it comes to the top 25, South Korea leads (7), followed by China (6) and Hong Kong. India, with the second largest student population worldwide does not have a single institution in the top 25. The Indian Institute of Science in Bangalore

ranks 29, whilst 5 branches of the Indian Institute of technology are among the top 100.

Asia University Ranking 2018	Asia University Ranking 2017	Position in World University Rankings 2018	Institution	Country/region
1	1	=22	National University of Singapore	Singapore
2	3	30	Tsinghua University	China
3	2	=27	Peking University	China
4	5	40	University of Hong Kong	Hong Kong
=5	6	44	Hong Kong University of Science and Technology	Hong Kong
=5	4	52	Nanyang Technological University	Singapore
7	11	58	Chinese University of Hong Kong	Hong Kong
8	7	46	The University of Tokyo	Japan
9	9	=74	Seoul National University	South Korea
10	8	=95	Korea Advanced Institute of Science and Technology (KAIST)	South Korea

More info: <https://www.timeshighereducation.com/world-university-rankings/2018/regional-ranking>

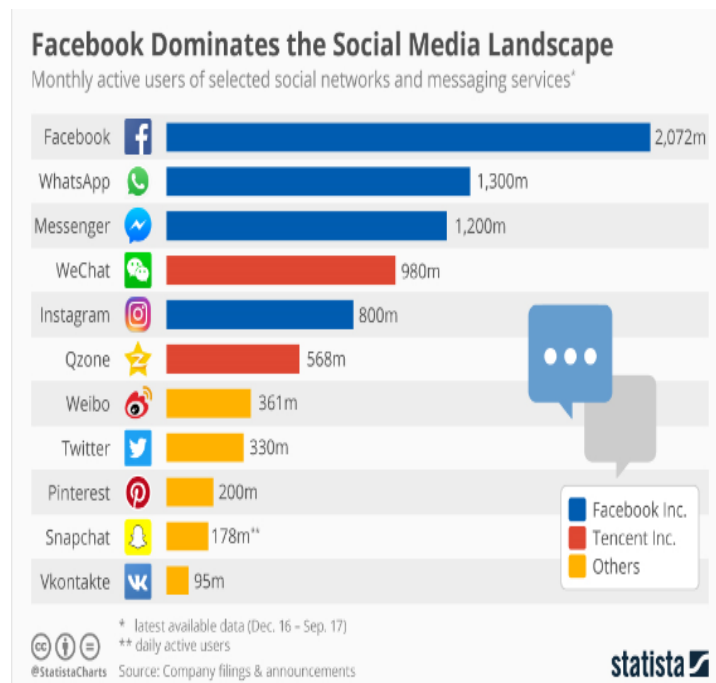
5. Statista data on social media

On 26 January *Statista* (a German start-up providing statistical information services) published a graph based on company filings and announcements showing the number of monthly active users of selected social networks and messenger services.

With over 2 billion users *Facebook* ranks first, followed by the Facebook owned messaging services *WhatsApp* (1300 million) and *Messenger* (1200 million). *Instagram*, acquired by *Facebook* in 2012, ranks 5th.

The Chinese company *Tencent* (based in Shenzhen) dominates its home market (where some Facebook services are blocked) with *WeChat* (nearly one billion users). Because of its wide range of functions (including payment services) *WeChat* is also called 'App for Everything' or 'Super App'. With *Qzone*, Tencent has a second social network service with over 500 million users. Another important Chinese service is *Weibo*, a microblogging website.

Twitter, *Pinterest* and *Snapchat* are US (west coast) headquartered social media companies, while *Vkontakte* (VK) is a Russian social media service with nearly 100 million users. No EU based company (Skype is part of Microsoft) is among the top social networks and messenger services listed by *Statista*.



More info: <https://www.statista.com/chart/5194/active-users-of-social-networks-and-messaging-services/>

6. OpenSignal data on average Smartphone download speed (4G)

In February *OpenSignal* published the February 2018 issue of the *State of LTE*.

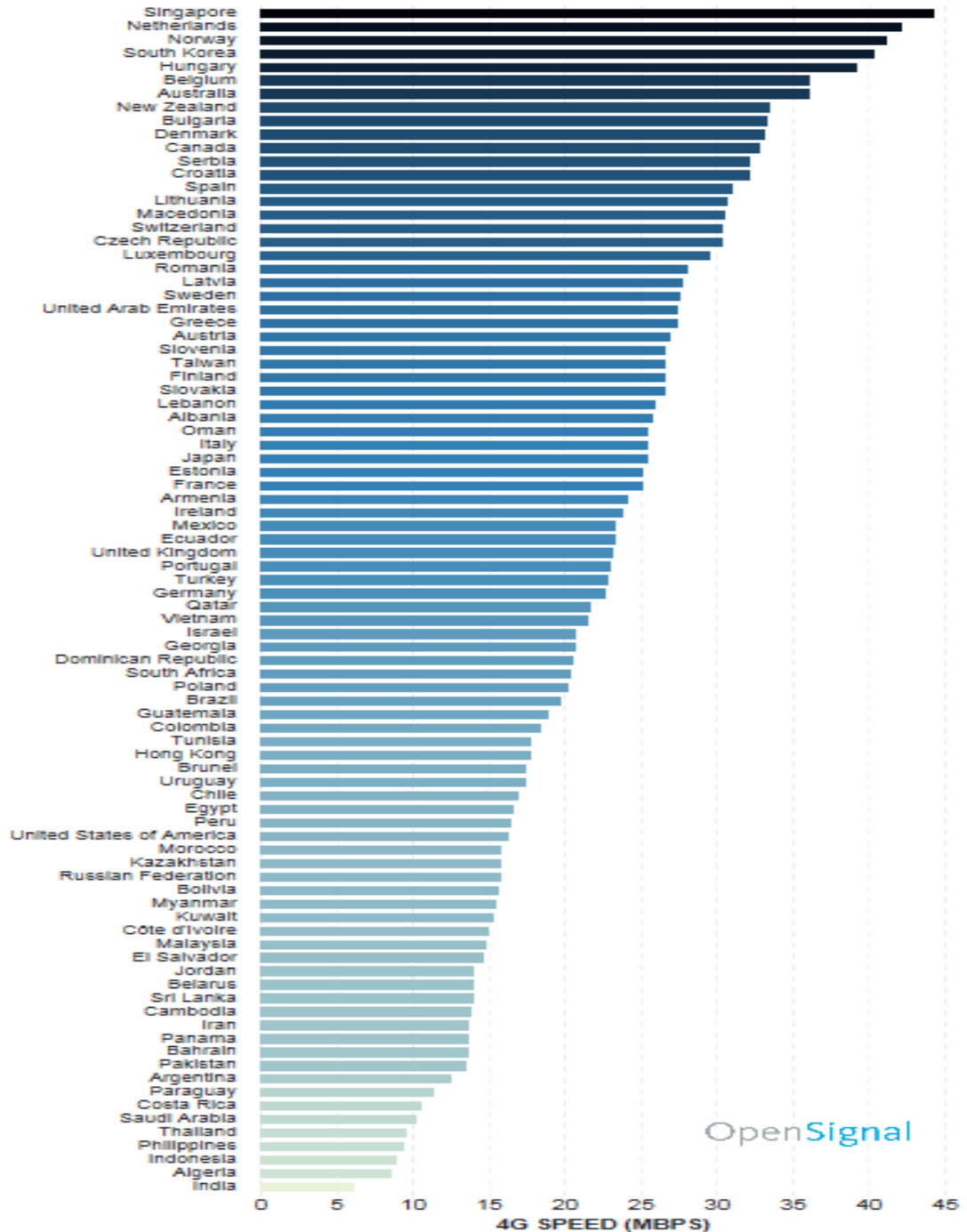
Based on over 58 billion measurements on nearly 5 million devices in the period October-December 2017 the study found that Singapore has the highest 4G (Smartphone) download speed, followed by the Netherlands and Norway. The top five EU countries also

include Hungary, Belgium, Bulgaria, and Denmark. The five EU countries with the lowest speed were found to be Ireland, UK, Portugal, Germany, and Poland. Average download speed in the US is, however, even lower than in Poland, the lowest EU performer.

Of the more than 80 countries covered, India turned out to be the one with the lowest 4G speed.

4G Speed Comparison

Share <



More info: <http://opensignal.com/reports/2018/02/state-of-lte>

7. Miscellaneous results from national data sources

United States: US Census Bureau Business Formation Statistics

Figure 2. Business Applications (BA), seasonally adjusted

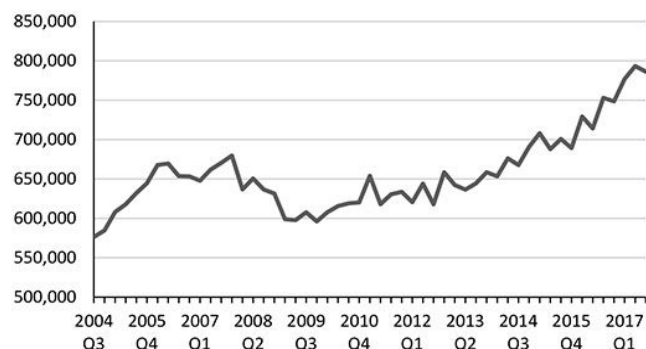
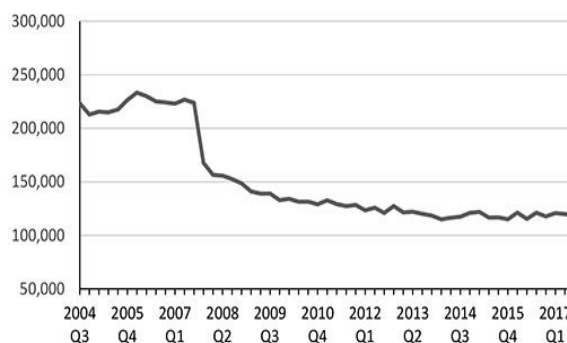


Figure 3. Business Applications with Planned Wages (WBA), seasonally adjusted



US Census Bureau data published on 8 February show that US business applications have bottomed out in 2009, with growth accelerating in 2013 and applications in 2017 about 20% above the pre-crisis level. However, high quality applications (those with a high rate of turning into

job-creating businesses, in the graph above those with planned wages) have not followed the same pattern and show little sign of recovery. The Census Bureau hence concludes that there is a recovery in the quantity, but not so much in the *quality* of US business applications.

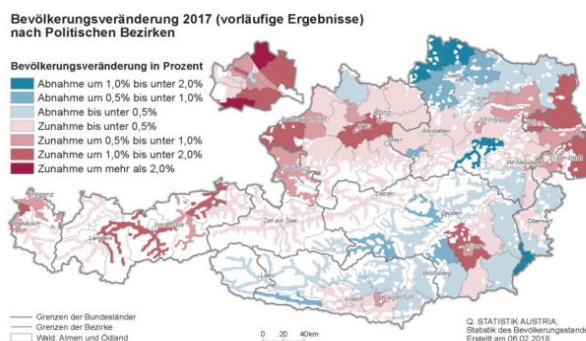
More info: <https://www.census.gov/newsroom/blogs/research-matters/2018/02/bfs.html>

Austria: population growing, but some regions still shrinking

According to data released by Statistik Austria on 6 Feb. 2018 the Austrian population increased in 2017 by about 50,000 to (+0.57%) to reach 8.8 million. Vienna had the highest population growth (+1.15%, thus replacing Bucharest as the 6th largest EU capital by population), followed by Vorarlberg (+0.75%), Tirol (+0.68%) and Salzburg (+0.61%). Kärnten was the only Bundesland whose population declined (-0.03%). However, the population of Klagenfurt, the capital of Kärnten (Carinthia), increased and for the first time exceeded 100,000 inhabitants.

While the population with Austrian nationality slightly decreased, the number of foreigners increased in 2017 by 4.1% to reach 1.4 million. As regards country of origin, people from EU countries made up half of all foreigners, with Germany (+2.9%) the largest EU source country (187,000), followed by Romania (102,000, +11%), the

EU source country with the largest growth. Serbia is the largest non-EU country of origin (120,000, +1.6%), while the number of foreigners from Syria showed the highest growth in 2017 (48,000, +15.5%).



More info: https://www.statistik.at/web_de/presse/116038.html

8. People



Mariana Kotzeva, Acting Director-General of Eurostat since 1 January 2017, was appointed Director General of Eurostat by the European Commission, as of 1 March 2018.

She is the first Bulgarian Director-General in the European Commission and the first woman at the helm of Eurostat. Ms Kotzeva joined Eurostat as a special adviser in 2012, becoming its Deputy Director-General in 2014. Prior to joining the European Commission, Ms Kotzeva was the Head of Bulgaria's National Statistical Institute. Ms Kotzeva has a Master's degree in economics and a PhD in statistics and econometrics.

Calendar of data releases and indicator based publications

Update of: 28/2/2018 (grey= already published)

2018	Eurostat data updates	Commission indicator based reports	Data and indicator based reports of other organisations
January			Bloomberg Innovation Index
February	High growth enterprises data (provisional, 2016)	Winter forecast (ECFIN) Science Research and Innovation Performance Report (RTD)	OECD MSTI statistics (R&D expenditure)
March	R&D expenditure data update (revision of preliminary 2016 results)	DESI indicator (CNECT)	European Patent Office , annual results Reuters Most Innov. Institutions OICA world motor vehicle production data OECD R&D Statistics
April	Education headline indicators (LFS)		Internet Minute (Excelacom/Allaccess)
May	High-tech trade (2017) Education enrolment, graduates Knowledge-int. activities (2017)	Spring Forecast (ECFIN) Europe 2020 publication (ESTAT)	Invest Europe European Private Equity Report IMD World Competitiveness Yearbook
June	Education spending Employment high-tech (2017) HRST education inflows (2016)	European Innovation Scoreboard (GROW/RTD)	OECD MSTI publication Times Higher Ed. Reputations Ranking WIPO/Cornell/INSEAD Global Innovation Index
July			UNESCO UIS STI stats release OECD Education at a Glance
August			Academic Ranking of World Universities (Shanghai)
September	Final high growth ent. data (2016) Economic data on high-tech (2017)		WEF Global Competitiveness Index
October	GBORD (2017 preliminary)		World Bank Doing Business
November	R&D intensity (2017 preliminary, 2016 final) Knowledge-int. activities (2017) Employment high-tech (2017)	Autumn Forecast (ECFIN) Education Monitor (EAC) Annual Growth Survey (ECFIN) Joint Employment Report (EMPL) (draft)	Top500.org: Top 500 Supercomputer list OECD STI Outlook (2-yearly)
December	ICT household data (2018) ICT enterprise data (2018) HRST stocks (2017)	Industrial R&D Investment Scoreboard (JRC) (ERA Progress Report)	WIPO World Intellectual Property Indicators

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