

NEWSLETTER on STI Data and Indicators

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

1. Eurostat data on hourly labour costs

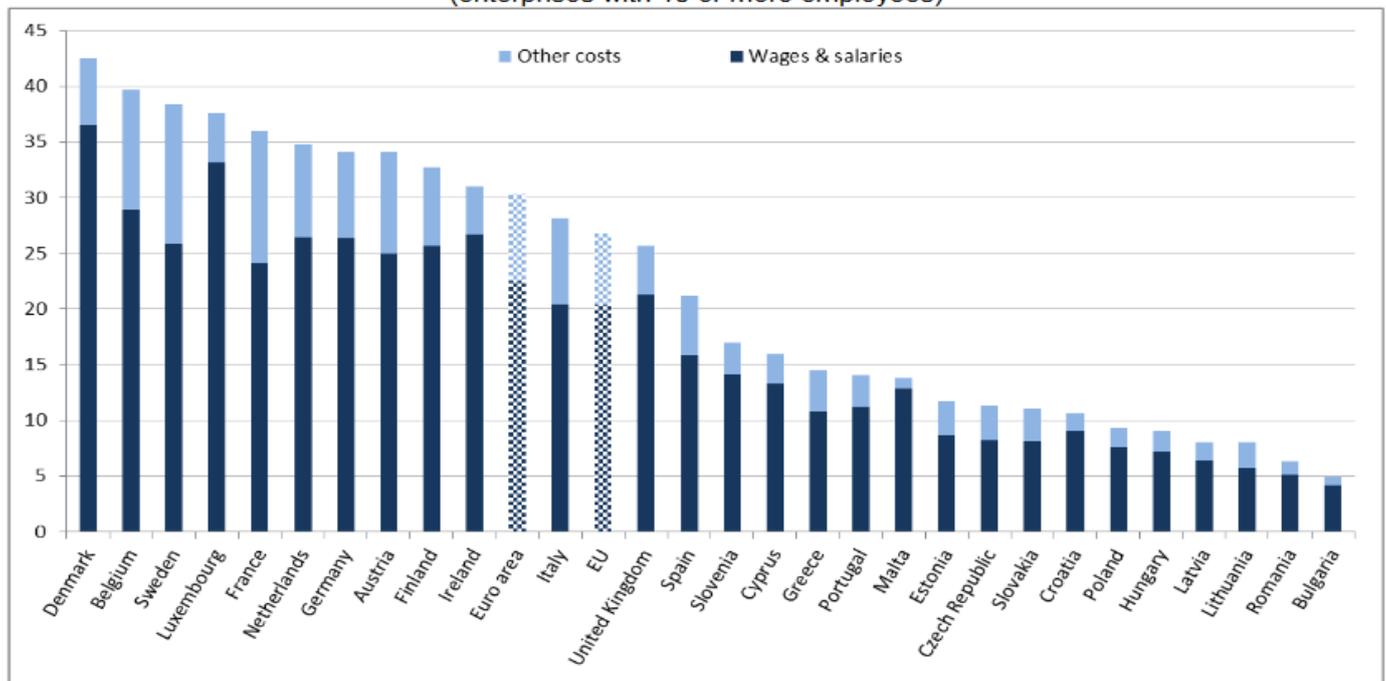
On 9 April, Eurostat published data on hourly labour costs in the EU.

Labour costs for the whole economy (excluding agriculture and public administration) in 2017 were highest in Denmark, at 42.5 € per hour, followed by Belgium, Luxembourg (37.6 €) and France (36.0 €). Bulgaria (4.9 €) and Romania (6.3 €) had the lowest hourly costs. The share of non-wage costs was highest in France (32.8%), Sweden (32.7%), Italy (27.5%) and Belgium (27.1%) and lowest in Malta (6.1%) and Luxembourg (11.9%). Wages and salaries per hour were highest in Denmark (36.6 €) and Luxembourg (33.1 €) and lowest in Bulgaria 4.1 € and Romania (5.1 €).

In 2017, hourly costs increased most compared to 2016 in Romania (+15.0%), Bulgaria (+12.0%), the Czech Republic (+11.5%) and Hungary (+10.0%). Costs declined in the UK (-4.1%) because of the depreciation of the British Pound, and in Finland (-1.5%).

According to Statista data, average hourly labour costs in China in the manufacturing sector were 5.2 \$ (4.3 €) in 2017, similar to those in Bulgaria, while in Mexico (3.6 €) and in Vietnam (2.1 €) hourly costs were even lower. According to US Conference Board data, in 2016, hourly labour costs in the US were about 25% above the EU average, while in Japan they were about 20% and in South Korea about 25% below the EU average.

Hourly labour costs in € for the whole economy (excluding agriculture and public administration), 2017
(enterprises with 10 or more employees)



More info: <http://ec.europa.eu/eurostat/documents/2995521/8612324/8-25012018-AP-EN.pdf/9d28caef-1961-4dd1-a901-af18f121fb2d>

2. Eurostat data on high-growth enterprises

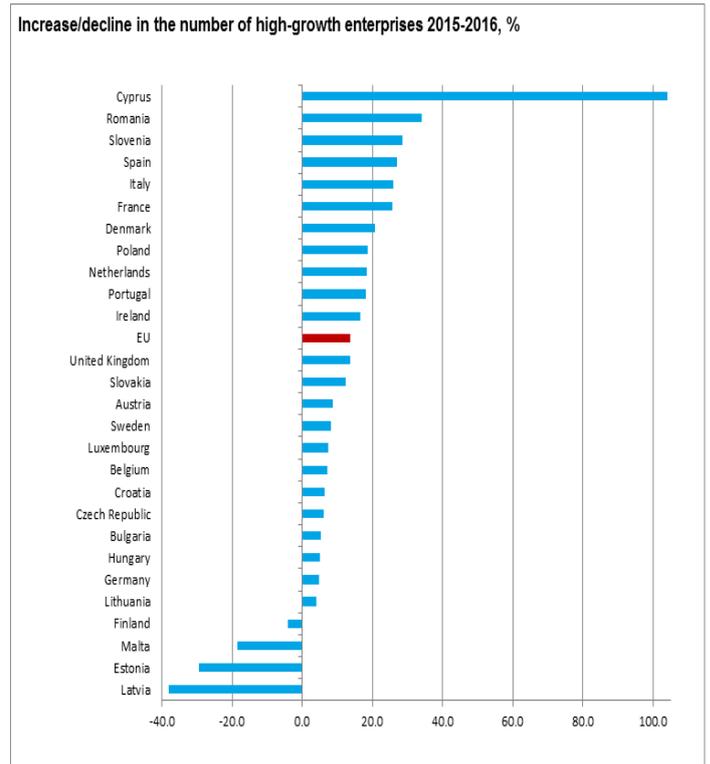
On 4 April, Eurostat published data on the increase/decline in the number of high-growth enterprises in the EU. High-growth enterprises are defined as enterprises with an average annualised growth in the number of employees of more than 10% per year over a three year period and with at least 10 employees when the growth began.

According to the Eurostat news release *'In 2016 compared with 2015, the number of high-growth enterprises increased by 14% in the EU. According to the preliminary data for 2016, the number of high-growth enterprises in the EU was 180 000, compared with 158 000 in 2015.'*

These enterprises provided jobs for around 15 million employees: an increase of 13%.'

Cyprus showed the highest growth in the number of such enterprises (albeit from a low base of only 48 high growth enterprises in 2015 or 0.06/1000 inhabitants, compared to an EU average of 0.31/1000 inhabitants in 2015). Romania, which also has a relatively low number of high-growth companies (0.06/1000 inhabitants in 2015) had the second highest growth in 2016. Other countries with more than 20% growth included Slovenia, Spain, Italy, France and Denmark. On the other hand, the number of high-growth enterprises declined in 2016 in Finland, Malta, Estonia and Latvia, mostly countries with a relatively high number of high-growth companies in 2015.

More info: <http://ec.europa.eu/eurostat/web/products-eurostat-news/>

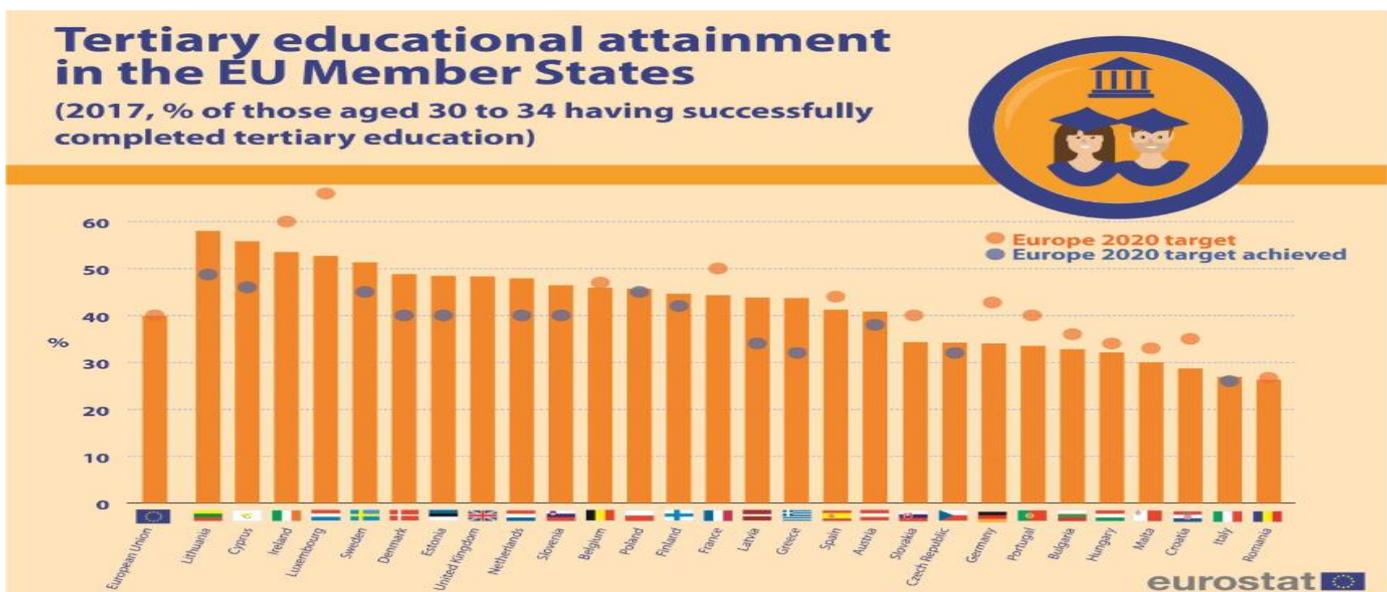


eurostat

3. Eurostat data on tertiary attainment

On 25 April, Eurostat published data on the population aged 30-34 having successfully completed tertiary education. In 2017, tertiary attainment of 30-34 olds reached 39.9% in the EU and was thus very close to the 40% Europe 2020 target. More than half of Member States have already reached their national targets.

Lithuania is the EU country with the highest tertiary attainment rate (58%), followed by Cyprus (55.8%), Ireland (53.5%), Luxembourg (52.7%) and Sweden (51.7%). Countries with low tertiary attainment rates include Croatia (28.7%), Italy (26.9%) and Romania (26.3%).



National targets as reported in European Semester 2017. No national target for the United Kingdom. The national target for Germany includes post-secondary non-tertiary education (International Standard Classification of Education 1997 level 4).

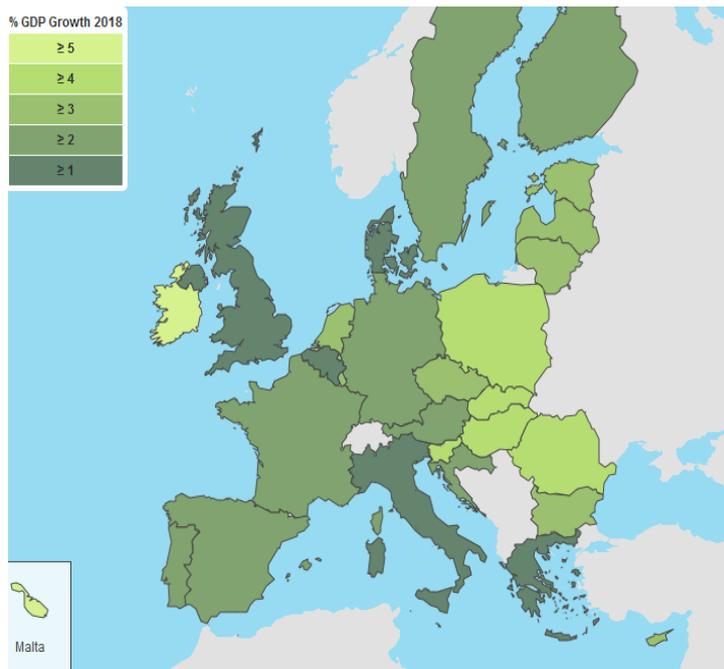
More info: <http://ec.europa.eu/eurostat/documents/2995521/8829968/3-25042018-AP-EN.pdf/70700487-07d4-4913-bdbb-2ca8c6be870a>

4. Commission's Spring 2018 Economic Forecast

On 3 May 2018, the *Commission* (DG ECFIN) published the **Spring 2018 Economic Forecast**.

GDP growth in the EU as a whole is expected to be above 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 1.7 % in 2017 and in 2018 and at 1.8% in 2019. The unemployment rate is expected to decrease from 7.6% in 2017, to 7.1% in 2018 and to 6.7% in 2019. The Czech Republic will remain the EU country with the lowest unemployment rate (2.4% in 2018 and 2019), followed by Germany (3.6% in 2018 and 3.5% in 2019), the Netherlands (3.8%/3.5%), Hungary (3.7%/3.6%), Poland (4.1%/3.9%) and Malta (4.0%/4.0%). Three countries are forecast to continue having a double-digit unemployment rate: Greece (20.1% in 2018 and 18.4% in 2019); Spain (15.3%/13.8%) and Italy (10.8%, 10.6%).

In 2017, Ireland's GDP grew fastest (7.8%), followed by Romania (6.9%) and Malta (6.6%), while Greece (1.4%) 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 (1.5%) will have the slowest growth. In 2019, Malta (5.1%), Slovakia (4.2%) and Ireland (4.1%) are expected to grow fastest, while Italy (1.2%) and the UK (1.2%) are again forecast to grow slowest.



More info: http://europa.eu/rapid/press-release_IP-18-3605_en.htm

5. Reuters list of Europe's most innovative universities

On 26 April 2018, **Reuters** published a list of *Europe's 100 most innovative universities*. The ranking is based on indicators related to patents (patent volume, patent success, patent citations, patent impact) and scientific publications (industry collaborative articles, citation impact). According to this assessment, KU Leuven is Europe's most innovative university, followed by the Imperial College of London and the University of Cambridge. Germany has the highest number of universities on the list (23), followed by the UK (21), France (17), the Netherlands (9), Belgium (7), Spain (5), Switzerland (5), Italy (3), Denmark (3) and Ireland (2). Norway, Austria and Finland have one top 100 university each. Surprisingly, there is no Swedish university on the list. Only one institution in central and eastern Europe is included, the Jagiellonian University of Krakow, ranked 90. Belgium can boast more top 100 innovative universities per capita than any other country in Europe. On a per capita basis Switzerland is second, followed by Denmark, the Netherlands and Ireland. According to Reuters the 23 German universities on the list cumulatively rose 23 spots, more than any other country. Switzerland was second, with five universities up a total of 8 spots. In contrast, the 21 UK based universities dropped a cumulative 35 spots.

1. **KU Leuven** Belgium
2. **Imperial College London** United Kingdom
3. **University of Cambridge** United Kingdom
4. **Federal Polytechnic School of Lausanne** Switzerland
5. **University of Erlangen Nuremberg** Germany
6. **Technical University of Munich** Germany
7. **University of Manchester** United Kingdom
8. **University of Munich** Germany
9. **Technical University of Denmark** Denmark
10. **Swiss Federal Institute of Technology Zurich** Switzerland
11. **University College London** United Kingdom
12. **Delft University of Technology** Netherlands
13. **University of Zurich** Switzerland
14. **University of Oxford** United Kingdom
15. **University of Basel** Switzerland

More info: <https://www.reuters.com/article/us-emea-reuters-ranking-innovative-unive/reuters-top-100-europes-most-innovative-universities-2018-idUSKBN1HW0B4>

6. Allaccess data on Internet usage

2018 *This Is What Happens In An Internet Minute*



On 3 April, the **Allaccess** website published the *Internet Minute 2018*, which was compiled by Lori Lewis. The comparison with 2017 is also shown. All the media/services identified relate to US companies, such as Facebook (Facebook, Whatsapp, Messenger, Instagram), Alphabet (Google, Youtube), Amazon (Amazon echo, twitch), Snapchat or Twitter. The comparison with 2017 shows the strongest growth for Netflix, Instagramm and Messenger, while Twitter, Facebook and Google queries grew by less than 10%.

For the year 2016 a similar overview has been prepared by Eric Crouch for China (where many US based services are not available). The 700 million Internet users in China in one minute order 1388 cabs and 2777 private cars from Didi and watch 625 000 Youku Tudou videos. There are 396 000 WeChat logins, 64 800 posts and re-posts on Weibo, 4.2 million search queries on Baidu and 774 people buy something on Alibaba's marketplaces Taobao&Tmall, while 1.1 million US \$ is spent on Alibaba (exceeding the amount shown on the 'Internet Minute' above, which focuses on US based services).

More info: <https://www.allaccess.com/merge/archive/28030/2018-update-what-happens-in-an-internet-minute>

<https://www.techinasia.com/minute-online-china-infographic>

2017 *This Is What Happens In An Internet Minute*

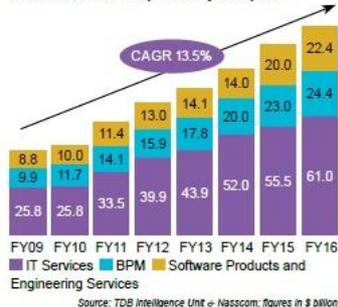


7. Miscellaneous results from national data sources

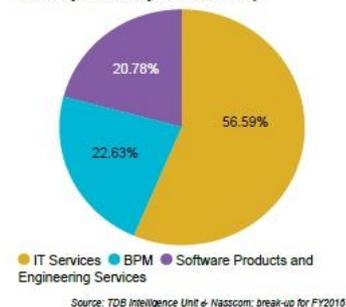
India: software/IT services exports exceeding 100 billion US \$

On 25 January 2018, the Indian Electronics and Computer Software Export Promotion Council (ESC) released data on software/services exports of India. According to the ESC, India's computer software/services and IT enabled services (ITeS) exports have grown by 3.8% to 111 billion US\$ during 2016-17. According to the data, the US remains the top destination of India's exports of software/services, accounting for 57% of India's total exports in 2016-17 (down from nearly 80% in earlier years). The UK ranks second with a share of 18% and 20 billion US\$, followed by Singapore (4.4 billion US\$). Tata Consulting Services (TCS), Wipro and HCL are the three biggest exporters. According to UN statistics (2014 data) India is the world's largest computer/info services exporter (73 bn US\$), followed by Ireland (65 bn), the Netherlands, Germany and the US.

India's IT-BPM services export
Industry growth is likely to be between 8-10% in constant currency in this fiscal year



Sector-wise breakup of exports
IT services exports account for a major chunk of revenues for the industry



More info: <https://www.thehindubusinessline.com/info-tech/indias-software-ites-exports-clocks-at-111-b/article10051430.ece>

China: First quarter 2018 data show economy zooming ahead

On 17 April, the National Bureau of Statistics of China (NBS) published first quarter 2018 economic results. According to the NBS, Chinese GDP increased on a year to year basis by 6.8% in real terms and amounted to 19.9 billion Yuan in the first quarter of 2018 (2.6 billion €). The EU's GDP in comparison amounts to 3.8 billion € per quarter. (Chinese GDP when converted into PPS has a higher value). Value added in the primary sector (agriculture, forestry, fishing and mining, representing 3.3% of GDP) increased by 3.2%, value added in the secondary sector (industry, representing 35.6% of GDP) increased by 6.3% and value added in the tertiary sector (services, representing 61.1% of GDP) increased by 7.5%. Value added in the high-tech sector increased by

11.9%. The production of integrated circuits, grew by 15.2%, of new energy vehicles by 139.4% and of industrial robots by 29.6%. In the service sector the activities with the highest growth rates were: information transmission, software and information technology services, rental and business services. The unemployment rate in urban areas of China reached 5.0%. There were 174 million migrant workers (from inside China). Inflation amounted to 2.1%.

In the first quarter exports grew by 7.4% to reach 3539 billion Yuan/460 billion € and imports increased by 11.7% to reach 418 billion €. The trade surplus hence declined to 42 billion €. Foreign trade with the EU increased by 8.2% in the same period, faster than trade with the US.

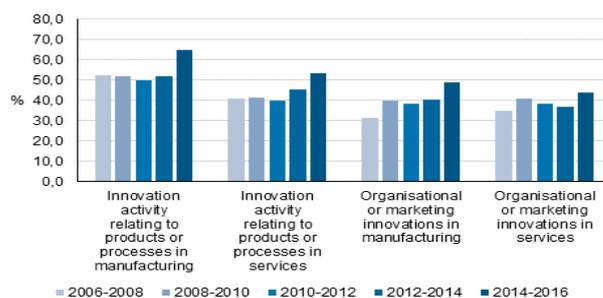
More info: http://www.stats.gov.cn/english/PressRelease/201804/t20180417_1594338.html

Finland: share of enterprises with innovation activities increasing

On 12 April 2018, Statistics Finland published the results of its Innovation Survey (which is part of the Community Innovation Survey, the results of which will be published by Eurostat at the end of 2018). The data show that the prevalence of innovation activities in enterprises has increased since the last survey (reference period 2012-2014). Notably the share of enterprises with innovation activities relating to products or processes in manufacturing increased, but there was also an increase in the service sector and in enterprises with organisational or marketing innovations. According to Statistics Finland, 43% of the surveyed enterprises introduced new or significantly improved products to the market and 58% of enterprises reported innovation activities related to products and processes, an increase by some 10 percentage points from the previous survey. Statistics Finland further reports that expenditure on innovation activities remained in 2016 at the level of previous surveys, at around six billion €. Although R&D expenditure in Finland decreased, there was a growth in investment in innovation and in introducing new products to the market, hence the share of non-R&D expenditure

increased. 4.3 billion € of innovation expenditure was spent by manufacturing enterprises and 1.7 billion € by service sector enterprises. In the survey, the lack of skilled personnel emerged as the factor most commonly hampering innovation activities. Absence of own funding and high costs of innovation activities, as well as market factors, such as strong competition and uncertain demand for innovations, were also reported by enterprises as challenges to innovation.

Prevalence of innovation activity in manufacturing and services in 2006 to 2016, share of enterprises



More info: http://www.stat.fi/til/inn/2016/inn_2016_2018-04-12_tie_001_en.html

Calendar of data releases and indicator based publications			
<i>Update of: 30/4/2018 (grey= already published)</i>			
2018	Eurostat data updates	Commission indicator based reports	Data and indicator based reports of other organisations
January			Bloomberg Innovation Index
February	Tertiary attainment (2017, prov.) 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 OICA world motor vehicle production data OECD R&D Statistics
April	Education headline indicators (LFS)		Reuters Most Innov. Institutions Internet Minute (Excelacom/Allaccess)
May	High-tech trade (2017) Education enrolment, graduates Knowledge-int. activities (2017)	Spring Forecast (ECFIN)	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)	Europe 2020 publication (ESTAT)	WEF Global Competitiveness Index
October	GBARD (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

Contact for more information: Richard Deiss (unit A4, Tel 64881), Dermot Lally (55614)