2020 EU Industrial Research and Development Scoreboard: EU companies remain robust and increase investment amidst stiff global competition

Companies in the European Union (EU27) have increased their investment in research and development (R&D) for the tenth consecutive year as included in the 2020 EU Industrial R&D Investment Scoreboard published today. In 2019, they invested 5.6% more in R&D, up from 4.7% in 2018. This growth is driven by the automobile, ICT and health sectors. One successful example is the German company BioNTech, leading the groundbreaking development of one of the first COVID-19 vaccines in use. Since its early days, it has benefited from EU R&D support now worth over €108 million. BioNTech ranks at number 655 in the world ranking, and has been in this Scoreboard since 2013. It has multiplied its R&D investment by 6 and its net sales ten times in this 7-year period.

EU companies in the Scoreboard are highly internationalised, showing a diversified and strong technological and industrial base. In the ranking of the top 2,500 R&D investing companies worldwide, however, they lose ground against fast growing ICT and health sector companies based in the US and China.

Commissioner for Innovation, Research, Education, Culture and Youth, Mariya Gabriel, said: "We can be proud of our leading companies, for example now with COVID-19 vaccines development or in green technologies. However, more investment is needed in the ICT sector in particular in the global race for technological leadership and in the green and digital transitions. If we want Europe to drive the transition to a climate-neutral economy, we need to redouble our efforts."

In the face of an ever-increasing global technological race, the top 2,500 industrial players worldwide increased their R&D investment by 8.9% last year, similar to 2018. EU companies account for 14 of the top 50 of corporate R&D investors. Although the R&D growth rate of EU companies (5.6%) has increased, it is well below that of their Chinese (21%) and US counterparts (10.8%).

In the ranking of 2,500 worldwide largest R&D investors, the US comes first with 775 companies (€348 billion), followed by 421 EU-based companies (€189 billion) and China 536 companies (€119 billion). The 421 EU-based companies employ more than 16.8 million people, an increase of 0.2% over the previous year. The continued increase of the number of Chinese companies in the Scoreboard and the exit of UK companies from the EU figures weakens the EU representation among the top corporate R&D Investors, pointing to strategic specialisations and gaps in industrial R&D capacities.

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While the EU has an excellent base of key R&D players in medium technology sectors, the Scoreboard shows the need for a higher number and growth of companies in pharma & bio and ICT.

Global R&D growth was driven by the US ICT sector (14.5%) followed by the health sector (13.7%). EU R&D growth was driven by automobiles (4.2%), ICT (8.6%) and health (5%). EU companies are competing with the US in aerospace and defence and in the chemicals sector where Japan takes the lead.

The EU is the global leader in high-value green patents with Japan and the US following closely. From 2000 to 2016, the EU has produced around 60 thousand high-value green inventions, about 6 times more than China. The EU and the US have the highest share of high-value inventions, which, between 2010 and 2016, amounted on average to about 60% of all their green inventions. South Korea (17%) and Japan (32%) have lower shares, and only 3% of Chinese inventions are classified as high value. The report also includes an analysis of companies’ disclosure and reputation scores related to the UN’s Sustainability Development Goals and evidence of the role played by industrial R&D. The EU and Japan achieve scores of 54 out of 100, China and the US score lower at 42.2 and 38.3 respectively.

**Background**

The EU Industrial R&D Investment Scoreboard has been published annually since 2004 by the European Commission (Directorate-General for Research and Innovation and the Joint Research Centre). The 2020 edition of the Scoreboard comprises the 2500 companies investing the largest sums in R&D in the world in 2019/20. The Scoreboard data, taken from companies’ latest published accounts, comprise key indicators on the 2500 parent companies and more than 800 thousand subsidiaries that enable assessing companies’ economic and innovation performance. The 2500 companies, based in 43 countries, each invested at least €34.7m in R&D for a total of €904.2 billion. The 2020 Scoreboard total R&D is equivalent to approximately 90% of the world’s business-funded R&D. The sample includes 421 companies based in the EU27, accounting for 21% of the total R&D in the sample, 775 US companies (38%), 309 Japanese companies (13%), 536 Chinese (13%) and 459 from the rest of the world (15%).

**For More Information**

EU Industrial R&D Investment Scoreboard