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Nearly 70 billion NOK to R&D in Norway

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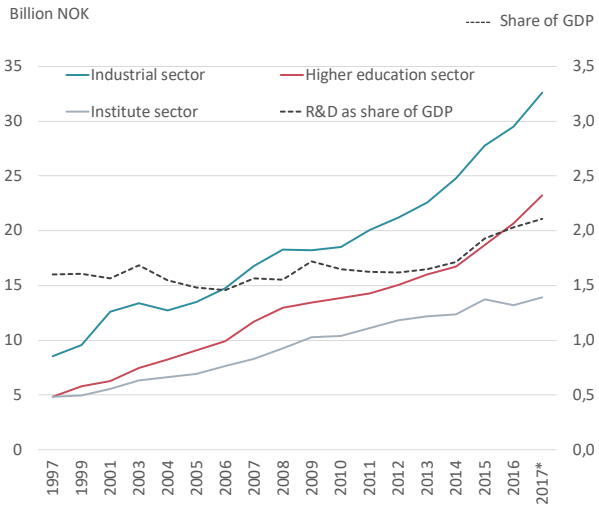
Preliminary figures show that Norway spent nearly 70 billion NOK on research and experimental development (R&D) in 2017. In current prices, R&D expenditure increased by more than 6 billion NOK, equaling 10 per cent, from 2016. The number of full-time equivalents (FTEs) dedicated to R&D grew by more than 3 000, reaching a total of 47 000. According to the preliminary figures Norway's R&D expenditures constituted 2,11 per cent of GDP.

The industrial sector is the largest sector in terms of R&D expenditures, having spent 32,6 billion NOK in 2017. This corresponds to 47 per cent of Norway's total R&D. The higher education sector followed with 23,2 billion NOK, whereas the institute sector spent nearly 14 billion NOK. The total R&D expenditures thus amounted to nearly 70 billion NOK, equaling 2,11 per cent of GDP (preliminary figures). This is an increase from 2,03 per cent in 2016 and is the highest share of GDP measured (see chart below).

In current prices, the higher education sector showed the highest relative growth from 2016, increasing R&D expenditure by 13 per cent or 2,6 billion NOK. In the industrial sector, the increase was 10 per cent, calculating to more than 3 billion NOK. The institute sector increased its R&D expenditures by 5 per cent, equaling 700 million NOK.

Measured in fixed prices (2010) Norway's R&D expenditures increased by 8,5 per cent from 2016 to 2017 (preliminary figures).



Total R&D expenditure as share of GDP and by performing sector, 1997–2017. Per cent of GDP and billion NOK (current prices).
*Preliminary figures.
Source: NIFU and Statistics Norway

More R&D FTEs in the industrial and higher education sectors

The preliminary figures indicate that the increase in R&D expenditures to a large extent is explained by growth in R&D personnel. The three sectors carried out a total of 47 000 R&D FTEs in 2017, implying an increase of 3 000 FTEs or 7 per cent from 2016. Both the industrial and the higher education sectors grew by 9 per cent, to 21 300 and 16 300 FTEs respectively, whereas the number of FTEs in the institute sector was stable at about 9 400.

R&D expenditure by performing sector and total number of FTEs dedicated to R&D in 2015, 2016 and 2017*. Million NOK and per cent change (current prices).

	2015	2016	2017*	Change 2016–2017
Industrial sector	27 783	29 489	32 573	10 %
Higher education sector	18 709	20 636	23 240	13 %
Institute sector	13 718	13 220	13 900	5 %
Total	**60 209**	**63 345**	**69 713**	10 %
Of which health trusts	3 990	4 187	4 377	5 %
Total FTE's on R&D	42 409	43 917	46 988	7 %

*Preliminary figures.
Source: NIFU and Statistics Norwayt

Rise in the industry's R&D expenditures

R&D expenditures in the industrial sector grew by more than 3 billion NOK in 2017. The service industries had the highest growth, accounting for 56 per cent of the industrial sector's total R&D outlays. Further, most of the increase from 2016 took place in enterprises with 10–99 employees. The rise in the sector's R&D expenditures mainly arose from increased labour and operating costs, whereas capital investments decreased. Read more about R&D in the industrial sector on Statistics Norway's website.

More time spent on R&D in the higher education sector

The growth in R&D expenditure in the higher education sector has several explanations. Firstly, a higher share than earlier of total expenses is now estimated as R&D. This is based on a new time-use survey indicating that employees in this sector dedicate a larger share of their time to R&D than earlier. Although this has been a gradual development, it appears as a year-on-year change in the statistics. Secondly, a part of the increase in R&D expenses may result from the basis covering more part-time positions than before. Thirdly, investments in buildings increased the higher education sector's R&D expenses by more than 500 million NOK from 2016. Much of this was related to building activity at the Norwegian University of Life Sciences (NMBU) at Ås.

Little change in the institute sector

According to the preliminary figures for the institute sector, there was little change in both R&D expenses and FTEs dedicated to R&D from 2016 to 2017. Capital investments on the other hand increased substantially, which contributed to a small rise in real total R&D expenses in 2017.

Increase in the health trusts

According to international guidelines for R&D statistics, university hospitals are included in the higher education sector, whereas the remaining health trusts are included in the institute sector in Norway. University hospitals account for about 80 per cent of the total R&D expenses in the health trusts. For the health trusts in total, the number of FTEs on R&D increased more than R&D expenses, by 8 and 5 per cent respectively. This is mainly due to a sharp increase in positions with low average wages, such as doctoral research fellows and supporting staff. At the same time, low investments in scientific equipment compared to 2016 limited the rise in R&D expenses. R&D in the health trusts is further described in this report (Norwegian only).

Final figures for the higher education and institute sectors will be presented in December 2018. Final and more detailed R&D statistics for Norway will be available in February 2019.#

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