# Innovation Behaviour in the Business Sector

C 3

The Europe-wide Community Innovation Surveys (CIS) conducted every two years form the data basis for the international comparison of the innovation behaviour of companies (C 3-1).[329] CIS are conducted by all EU Member States as well as by some other European countries on a harmonized methodological basis and under the coordination of Eurostat. They are based on a largely standardized questionnaire and are aimed at companies with ten or more employees in manufacturing industry and selected service sectors. In 2018, the innovation intensity, i.e., innovation expenditure in relation to total turnover, of research-intensive industry in Germany was 7.4 percent and thus above the rates of the comparative countries. In knowledge-intensive services, Sweden and Finland recorded the highest innovation intensities of the comparative countries, at 5.6 and 4.3 percent, respectively. In Germany, the rate was 3.2 percent.

The data on the innovation behaviour of the German economy in the period 2009 to 2019 presented in figures C 3-2 and C 3-3 are based on the innovation survey conducted annually since 1993 by the ZEW – Leibniz Centre for European Economic Research, the Mannheim Innovation Panel (MIP).[330] Data from the MIP represent the German contribution to the CIS. However, in addition to the data to be reported to Eurostat, the MIP also includes data for enterprises with five to nine employees.

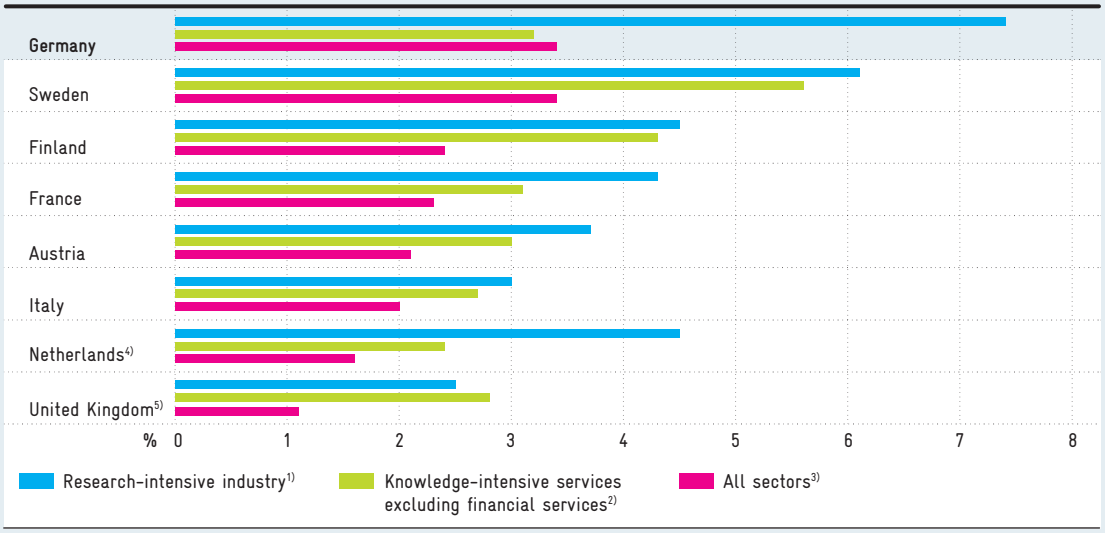
Innovation intensity (C 3-2) has shown only minor fluctuations in recent years in all the industry and business-oriented services sectors under consideration. In 2019, it was 8.9 percent in the R&D-intensive industry. Innovation intensity was significantly lower in other industry (1.4 percent), financial services (0.9 percent) and other services (0.6 percent). The knowledge-intensive service providers were able to continue the upward trend that has been observed since 2017 and achieved an innovation intensity of 6.1 percent in 2019. The share of turnover with new products (C 3-3) increased slightly for knowledge-intensive service providers compared to the previous year from 12.9 to 13.6 percent. R&D-intensive industry, on the other hand, recorded a decline from 33.0 to 31.2 percent, continuing the slight downward trend from the previous year. Slight declines were also seen in other industry (from 7.6 to 7.0 percent) and in other services (from 8.5 to 6.4 percent).

An important aspect in the commercialization of innovative technologies is standardization. At the international level, norms and standards are developed in the committees of the International Organization for Standardization (ISO). Through its involvement in these committees, a country can have a significant influence on global technical infrastructures (C 3-4).[331] In 2020, German companies were involved in the ISO's work significantly more often than representatives of other countries.[332] China was able to significantly increase the number of secretariats managed at the ISO in the period from 2010 to 2020, but still ranks sixth among the countries under consideration here.

Fig. C 3-1

Download data

## Innovation intensity in European comparison in 2018 in percent




Innovation intensity: innovation expenditure by companies as a percentage of their total turnover.
1) Research-intensive industry: divisions 19-22, 25-30 of WZ classification. Since data are not available for all sectors in all countries, the definition of research-intensive industries used in the European comparison differs from the definition normally used by the EFI.
2) Knowledge-intensive services excluding financial services: divisions 58-63, 71-73 of WZ classification. Since data are not available for all sectors in all countries, the definition of knowledge-intensive services used in the European comparison differs from the definition normally used by the EFI.
3) All sectors: divisions 5-39, 46, 49-53, 58-66, 71-73 of the WZ.
4) Reference year 2016. Research-intensive industry only divisions 25-30 of the WZ
5) Reference year 2016.
Source: Eurostat, Community Innovation Surveys 2018 and 2016. Calculations by ZEW.


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Fig. C 3-2

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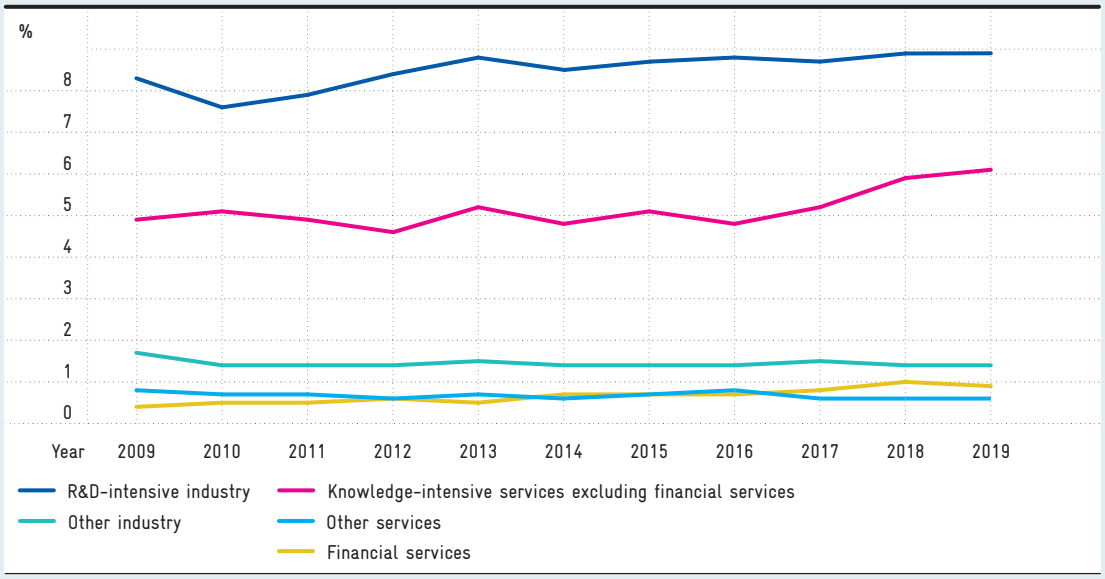
## Innovation intensity in industry and business-oriented services in Germany 2009–2019 in percent

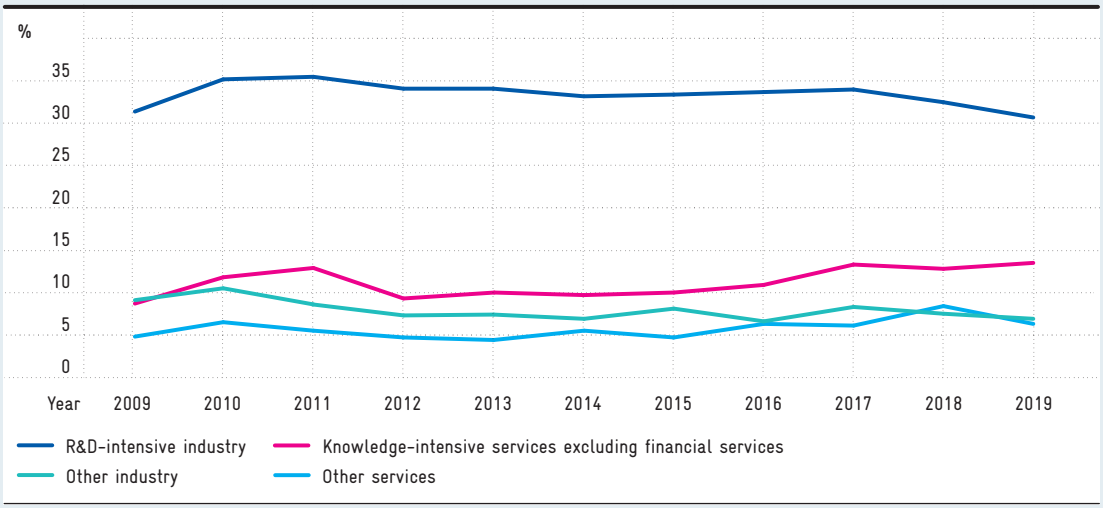



Innovation intensity: innovation expenditure by companies as a percentage of their total turnover.
Data for 2018 partly revised.
Source: Mannheim Innovation Panel. Calculations by ZEW.

## Percentage of turnover generated by new products in industry and business-oriented services in Germany 2009–2019

Fig. C 3-3

Download data




Source: Mannheim Innovation Panel. Calculations by ZEW.
Data for 2018 partly revised.


## Number of secretariats listed by the technical committees and subcommittees of the International Organization for Standardization (ISO) in 2010 and 2020

Fig. C 3-4

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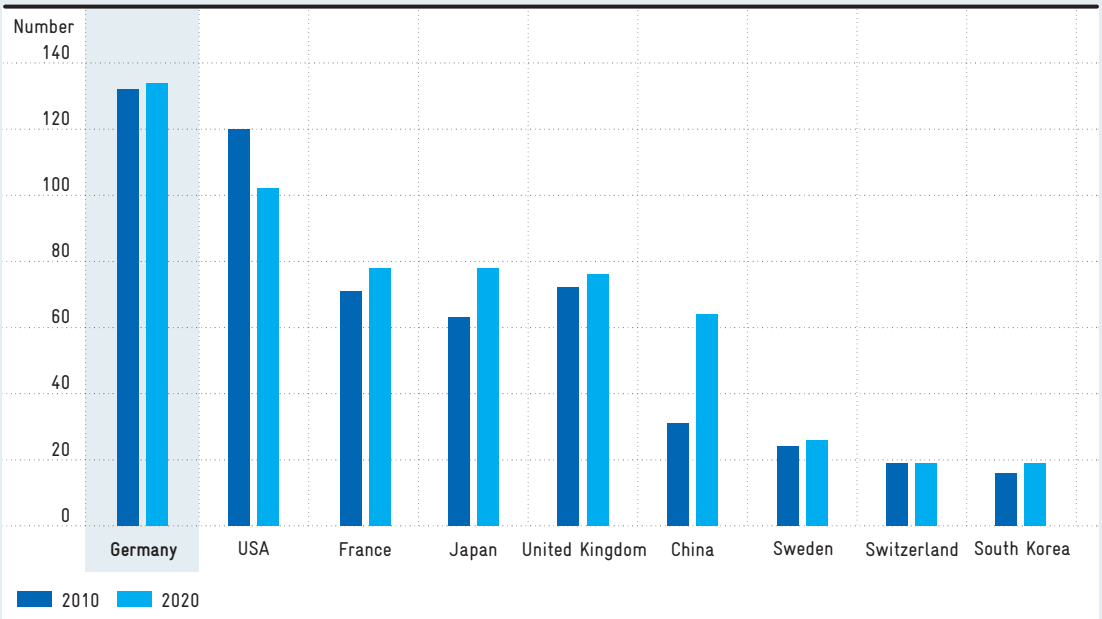


Source: Own representation based on ISO (2011) and https://www.iso.org/members.html (accessed on 17 December 2020).