

**High-tech** is an abbreviation of **high-technology** .

' **Statistics on high-tech industry and knowledge-intensive services**' (sometimes referred to as simply **high-tech statistics** ) comprise economic, employment and science, technology and innovation (STI) data describing manufacturing and services activities, products traded and patents applied selected on the basis of their technological intensity. Three approaches are used in the domain to identify technology-intensity: sectoral, product and patent approach.

The **sectoral approach** is a particular aggregation of the manufacturing industries according to the level of their technological intensity ( **R&D** expenditure/value added), using the Statistical Classification of Economic Activities in the European Community ( **NACE** Rev.2) at the 2- or 3-digit level for compiling groups. Manufacturing activities are grouped to 'high-technology', 'medium high-technology', 'medium low-technology' and 'low-technology'. Services activities, on the other hand, are mainly grouped together into 'knowledge-intensive services (KIS)' and 'less knowledge-intensive services (LKIS)' and these groups are defined according to a similar logic at the NACE Rev.2 2-digit level.<sup>1</sup>

The **product approach** looks at the level of technological intensity of products of manufacturing industries and similarly identifies the trade in high-tech products. The high-tech product list is based on the calculations of R&D intensity by product groups (R&D expenditure/total sales). The groups classified as high-tech products are grouped together on the basis of the **Standard International Trade Classification (SITC)** .<sup>2</sup>

The **patent approach** looks at whether or not a **patent** is high-tech and also defines **biotechnology** patents. The groups are put together on the basis of the **International Patent Classification (IPC)** , 8th edition, as are biotechnology patents. Subsequent technical fields are defined as high-technology IPC groups:

- aviation
- communication technology
- computer and automated business equipment
- lasers
- micro-organism and genetic engineering
- semiconductors

## Further information

For more detailed information of the various high-tech definitions see:

- [High-tech aggregation by NACE Rev. 1.1](#)

<sup>1</sup>Due to the revision of NACE from Rev. 1.1 to Rev. 2, the definition of high-technology industries and knowledge-intensive services has changed. For the compiling of high-tech statistics, this means that two different definitions (one according to NACE Rev. 1.1 and the other according to NACE Rev. 2) are used in parallel during a certain period.

<sup>2</sup>The revision of SITC from Rev. 3 to 4 has also affected the definition of high-tech products.

- [High-tech aggregation by NACE Rev. 2](#)
- [High-tech aggregation by SITC Rev. 3](#)
- [High-tech aggregation by SITC Rev. 4](#)
- [High-tech aggregations by patents](#)

## **Related concepts**

- [International patent classification](#)
- [Research and development](#)

## **Statistical data**

- [High-tech statistics - economic data](#)
- [High-tech statistics - employment](#)

## **Notes**