

## Statistics for the SDGs - indicators for national priorities



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| <b>Name of the indicator</b>        | <b>8.1.a Share of export of high technology products in total exports</b>  |
| <b>Sustainable Development Goal</b> | Goal 8. Decent work and economic growth  |
| <b>Priority</b>                     | Search for new competitive advantages based on products' technological advancement, quality and innovativeness as well as mechanisms for internationalization of enterprises   |
| <b>Definition</b>                   | <p>Ratio of the value of exported products with high research and development (R&amp;D) intensity to the value of total export, expressed in %.</p> <p>Foreign trade of high technology products is a measure of the effect and impact of R&amp;D activities and is characterized by a country's level of competitiveness in the global market.</p>  |
| <b>Unit</b>                         | percent [%]  |
| <b>Available dimensions</b>         | total  |
| <b>Methodological explanations</b>  | <p>In <b>technology advancement</b> survey two methods are usually used: according to the sector approach and the product approach.</p> <p>Product approach method is the extension and supplement to the sector approach. It describes high technology section and is mainly used in foreign trade analysis. Classification of the products was created on the basis of the analysis of content of R&amp;D component ("content of technology"). For measurement/ intensification of the R&amp;D intensity the following indicators are used: the ratio of direct R&amp;D costs to the value added, the ratio of direct R&amp;D costs to the production value (sales), the ratio of direct R&amp;D costs extended by indirect costs incorporated in investment goods and intermediate products to the production value (sales).</p> <p>The current list of <b>high technology products</b> includes 9 groups of products whose production requires high expenditures on R&amp;D: aerospace, computers - office machinery, electronics - telecommunications, pharmacy, scientific instruments, electrical machinery, non-electrical machinery, chemistry and armament.</p> <p><b>Export</b> means shipping abroad the goods that have been produced in the given country.</p> <p>Foreign trade in high technology is one of the methods of estimating the extent to which R&amp;D and solutions produced in the given country are converted to high-tech goods that can be sold on the global market.</p> <p>The following 9 product groups are included in the high technology products according to OECD SITC Rev. 4 list (validated by Eurostat in April 2009):</p> <ol style="list-style-type: none"> <li>1. Aerospace (among others helicopters, aeroplanes and other aircraft, spacecraft and spacecraft launch vehicles, propellers and rotors and parts thereof, aeroplane motors, direction finding compasses);</li> <li>2. Computers - office machinery (among others computers, multifunction office machines);</li> <li>3. Electronics – telecommunications (among others video apparatus, sound recording or reproducing apparatus operated by coins, bank cards, etc., printed circuits, optical fibre cables, microwave tubes, semiconductor devices; optical media);</li> <li>4. Pharmacy (among others antibiotics, hormones and their derivatives);</li> <li>5. Scientific instruments (among others electrodiagnostic apparatus for medicine or</li> </ol> |

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|                          | <p>surgery and radiological apparatus, dental drill engines, measuring instruments and apparatus, photographic cameras, cinematographic cameras, contact lenses, optical fibres, orthopaedic appliances);</p> <p>6. Electrical machinery (among others electric sound or visual signaling apparatus, electrical capacitors, fixed, variable or adjustable);</p> <p>7. Non-electrical machinery (among others gas turbines, nuclear reactors and parts thereof, machinery and apparatus for isotopic separation, machine-tools working by laser or other light or photon beam, lathes, drilling machines, milling machines, machines and apparatus for resistance welding of metal);</p> <p>8. Chemistry (among others selenium, tellurium, phosphorus, arsenic and boron, silicon, radioactive materials, synthetic organic colouring matter and colour lakes, insecticides, disinfectants);</p> <p>9. Armament (arms and ammunition).</p> |
| <b>Data source</b>       | Statistics Poland  |
| <b>Data availability</b> | Annual data; since 2010  |
| <b>Notes</b>             |  |

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