



## Terms used in official statistics



### Biotechnology

#### Definition:

A interdisciplinary field of science and technology dealing with the application of science and technology to living organisms, as well as parts, products and models thereof, to alter living or non-living materials for the production of knowledge, goods and services.

The list-based definition of biotechnology, based on the list of biotechnology techniques, is as follows:

- DNA/RNA: Genomics, pharmacogenomics, gene probes, genetic engineering, DNA/RNA sequencing/synthesis/amplification, gene expression profiling, and use of antisense technology,
- Proteins and other molecules: Sequencing/synthesis/engineering of proteins and peptides (including large molecule hormones); improved delivery methods for large molecule drugs; proteomics, protein isolation and purification, signaling, identification of cell receptors,
- Cell and tissue culture and engineering: Cell/tissue culture, tissue engineering (including tissue scaffolds and biomedical engineering), cellular fusion, vaccine/immune stimulants, embryo manipulation,
- Process biotechnology techniques: Fermentation using bioreactors, bioprocessing, bioleaching, biopulping, biobleaching, biodesulphurisation, bioremediation, biofiltration and phytoremediation,
- Gene and RNA vectors: Gene therapy, viral vectors,
- Bioinformatics: Construction of databases on genomes, protein sequences; modelling complex biological processes, including systems biology,
- Nanobiotechnology: Applies the tools and processes of nano/microfabrication to build devices for studying biosystems and applications in drug delivery, diagnostics, etc,
- other.

#### Low-level terms:

- [The areas of activity in the field of biotechnology](#)
- [Enterprise by type of biotechnology activity](#)

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