

Taxonomy of Technological Areas

ELECTRONICS, IT AND TELECOMMS

Electronics, Microelectronics

Automation, Robotics Control Systems

Digital Systems, Digital Representation

Electronic circuits, components and equipment

Micro and Nanotechnology related to Electronics and Microelectronics

3D printing

Electronic engineering

Embedded Systems and Real Time Systems

High Frequency Technology, Microwaves

Magnetic and superconductor materials/devices

Nanotechnologies related to electronics & microelectronics

Optical Networks and Systems

Peripherals Technologies (Mass Data Storage, Displays)

Printed circuits and integrated circuits

Quantum Informatics

Semiconductors

Smart cards and access systems

Information Processing & Systems, Workflow

Advanced Systems Architecture

Archivistics/Documentation/Technical Documentation

Artificial Intelligence (AI)

Computer Games

Computer Hardware

Computer Software

Computer Technology/Graphics, Meta Computing

Data Processing / Data Interchange, Middleware

Data Protection, Storage, Cryptography, Security

Databases, Database Management, Data Mining

Electronic Commerce, Electronic Payment & Signature

Imaging, Image Processing, Pattern Recognition

Information Technology/Informatics

Internet Technologies/Communication (Wireless, Bluetooth)

Knowledge Management, Process Management

Simulation

Speech Processing/Technology
User Interfaces, Usability
Electronic Signature
Building Automation Software
Remote Control
Smart Appliances
Environmental and Biometrics Sensors, Actuators
Cloud Technologies
Internet of Things

IT and Telematics Applications

Applications for Health
Applications for Tourism
Applications for Transport and Logistics
ASP Application Service Providing
e-Government
Environment Management Systems
GIS Geographical Information Systems
ERP - Electronic Resources Planning
CRM - Customer relationship Management
Quality Management System
Maintenance Management System
Operation Planning and Scheduler System
Didactic System
Serious Games
ICM – Internet Content Management
Analysis Risk Management
Work Hygiene and Safety Management

Multimedia

Cultural Heritage
E-Learning
E-Publishing, Digital Content
Human Language Technologies
Information Filtering, Semantics, Statistics
Visualisation, Virtual Reality

Telecommunications, Networking

Audiovisual Equipment and Communication
Broadband Technologies
Mobile Communications
Narrow Band Technologies
Network Technology, Network Security
Radar

Research Networking, GRID
Satellite Technology/Positioning/Communication in GPS
Signal Processing
Hi-Fi
Description to Sound and Music Computing
Description Image/Video Computing
Communications Protocols, Interoperability
Residential Gateway
VoIP telephony, remote access

INDUSTRIAL MANUFACTURING, MATERIAL AND TRANSPORT

Design and Modelling / Prototypes

3D printing

Industrial Manufacture

Cleaning (sandblasting, brushing)

Coatings

Drying

Erosion, Removal (spark erosion, flame cutting, laser, ..)

Forming (rolling, forging, pressing, drawing)

Hardening, heat treatment

Joining techniques (riveting, screw driving, gluing)

Jointing (soldering, welding, sticking)

Machine Tools

Machining (turning, drilling, moulding, planing, cutting)

Machining, fine (grinding, lapping)

Mixing (powder, etc.), separation (sorting, filtering)

Moulding, injection moulding, sintering

Extrusion

Surface treatment (painting, galvano, polishing, CVD, ..)

Microengineering and nanoengineering

Micromachining, nanomachining

Microassembly, nanoassembly

Micropositioning, nanopositioning

Process control and logistics

Process automation

Manufacturing plants networks

Component integration

Supply chain

Information processing & Systems, Workflow

Prototypes, trials and pilot schemes

Plant Design and Maintenance

Packaging / Handling

- Foil, films
- Laminate
- Packaging for machines
- Packaging for materials
- Plastic bags

Construction Technology

- Materials, components and systems for construction
- Construction methods and equipment
- Fire Resistance/Safety
- Installations related to construction (energy, lighting, ...)
- Construction maintenance and monitoring methods & equipment
- Construction engineering (design, simulation)
- Management of construction process & life

Materials Technology

- Adhesives
- Building materials
- Ceramic Materials and Powders
- Colours and varnish
- Composite materials
- Fine Chemicals, Dyes and Inks
- Glass
- Iron and Steel, Steelworks
- Materials Handling Technology (solids, fluids, gases)
- Metals and Alloys
- Non-ferrous Metals
- Optical Materials
- Paper technology
- Plastics, Polymers
- Properties of Materials, Corrosion/Degradation
- Rubber
- Stone
- Advanced Textile Materials
- Lightweight materials
- Biobased materials
- Carbon nanotubes
- Conductive materials
- Hybrid materials
- Nanomaterials

Transport Infrastructure

Air Transport
Intermodal Transport
Logistics
Railway Transport
Road Transport
Traffic Engineering / Control Systems
Transshipment Systems
Water Transport

Transport and Shipping Technologies

Design of Vehicles
Hybrid and Electric Vehicles
Railway Vehicles
Road Vehicles
Shipbuilding
Traction/Propulsion Systems
Artificial intelligence applications for cars and transport
Navigation and embedded systems
Sensors for cars and transport
Lightweight construction
Air pollution control for cars and transport
Automotive engineering
Body and main parts
Automotive electrical and electronics
Audio / video
Charging system
Electrical supply system
Measurement devices
Ignition system
Lighting and signalling system
Switches and wiring
Security systems
Interior equipment
Powertrain and chassis
Braking system
Energy supply system
Transmission systems

Traffic, mobility

Planning and security
Engineering
System and transportation

Aerospace Technology

Aeronautical technology / Avionics
Aircraft
Helicopter
Satellite Navigation Systems
Space Exploration and Technology
Propulsion
Guidance and control
Thermal insulation for space applications

OTHER INDUSTRIAL TECHNOLOGIES

Other Industrial Technologies

Cleaning Technology

Process Plant Engineering

Apparatus Engineering

Chemical Technology and Engineering

Agro chemicals
Inorganic Substances
Colours, dyes related to Chemical Technology
Electrical Engineering/ Electrical Equipment
Man-made fibres
Organic Substances
Pharmaceutics
Plastics and Rubber related to Chemical Technology
Soaps, detergents
Special chemicals, intermediates
Care, Hygiene, Beauty

Textiles Technology

Component adhesives for strengthening of seam
Dry filling related to Textiles Technology
Dyeing related to Textiles Technology
Finisher related to Textiles Technology
Non weaving related to Textiles Technology
Solvent based glues for strengthening of edges and seam
Textile fibres
Weaving related to Textiles Technology
Woven technical textiles for industrial applications

Footwear / Leather Technology

Dry filling related to Footwear / Leather Technology
Dyes related to Footwear / Leather Technology
Tanned leather process/ Leather Technology

Sound Engineering/Technology

Mining Technologies

Printing

- Flexography
- Printed Reel Material
- Household Goods & Appliances

ENERGY

Energy storage and transport

- Heat storage
- Heat transport and supply, district heating
- Storage of electricity, batteries
- Transmission of electricity
- Transport and storage of gas and liquid fuels
- Transport and storage of hydrogen
- Power to gas technology

Energy production, transmission and conversion

- Fuel cells
- Hydrogen production
- Compression and liquefaction of gases
- Furnace and boiler technologies
- Generators, electric engines and power converters
- Heat exchangers
- Heat pump
- Cooling technologies
- Turbines
- Combined heat and power (CHP) engines
- Micro-generation and grid connection
- Other energy related machinery
- Smart grids

Fossil Energy Sources

- Gaseous fossil fuel
- Solid fossil fuel
- Liquid fossil fuel
- Mining and extraction

Nuclear Fission / Nuclear Fusion

Renewable Sources of Energy

- Geothermal energy
- Hydropower
- Liquid biofuels

- Photovoltaics
- Solar/Thermal energy
- Solid biomass
- Waste incineration
- Wind energy
- Energy from wastewater
- Integrated waste-energy processes
- Bio-refineries for energy
- Waste to energy - other

Biogas and anaerobic digestion (AD)

Energy efficiency

- Energy management
- Lighting, illumination
- Process optimisation, waste heat utilisation
- Thermal insulation
- Heat pipes
- Low, zero and plus energy rating

Other Energy Topics

- Combustion, Flames
- Fuels and engine technologies
- Micro- and Nanotechnology related to energy

Carbon capture and energy

PHYSICAL AND EXACT SCIENCES

Chemistry

- Analytical Chemistry
- Computational Chemistry and Modelling
- Inorganic Chemistry
- Organic Chemistry
- Petrochemistry, Petroleum Engineering

Meteorology / Climatology

- Biosensor

Physics

- Vibration and Acoustic engineering
- Optics
- Vacuum

Separation Technologies

- Filtration and Membrane Processes
- Extraction
- Adsorption

Distillation
Sublimation
Other Processes

Micro- and Nanotechnology

BIOLOGICAL SCIENCES

Medicine, Human Health

Biostatistics, Epidemiology
Clinical Research, Trials
Cytology, Cancerology, Oncology
Dentistry / Odontology, Stomatology
Diagnostics, Diagnosis
Human vaccines
Emergency medicine
Environmental Medicine, Social Medicine, Sports Medicine
Gene - DNA Therapy
Gerontology and Geriatrics
Heart and blood circulation illnesses
Medical Research
Medical Technology / Biomedical Engineering
Neurology, Brain Research
Pharmaceutical Products / Drugs
Physiology
Surgery
Virus, Virology/Antibiotics/Bacteriology
Stem cell Technologies
Physiotherapy, Orthopaedic Technology
Single Use Products and Consumer Goods
Medical Textiles
Medical Furniture
Medical Biomaterials

Biology / Biotechnology

Biochemistry / Biophysics
Cellular and Molecular Biology
Enzyme Technology
Protein Engineering
Genetic Engineering
Synthetic Biology
In vitro Testing, Trials
Microbiology

Molecular design

Toxicology

Bionics

Genome Research

Bioinformatics

Gene Expression, Proteome Research

Population genetics

Micro- and Nanotechnology related to Biological sciences

E-Health

Safety & systems

Sensors & Wireless products

Health information management

Remote diagnostics

Industrial Biotechnology

Biobased Materials

Bioplastics

Biobased chemical building blocks

Biopolymers

Biobased high-performance materials

Biological Nanomaterials

Biolubricants

Biotensides

Ionic Liquids

Bio- Composites

Fermentation

Bioprocesses

Downstream Processing

AGRICULTURE AND MARINE RESOURCES

Agriculture

Agriculture Machinery / Technology

Animal Production / Husbandry

Biocontrol

Crop Production

Horticulture

Pesticides

Precision agriculture

Seed coating

Veterinary Medicine

Micro- and Nanotechnology related to agriculture

Silviculture, Forestry, Forest technology

- Forest technology
- Paper Technology
- Pulp Technology
- Silviculture, Forestry
- Wood Products

Resources of the Sea, Fisheries

- Aquaculture
- Fish / Fisheries / Fishing Technology
- Marine Science
- Micro- and Nanotechnology related to marine resources

AGROFOOD INDUSTRY

Technologies for the food industry

- Drink Technology
- Food Additives/Ingredients/Functional Food
- Food Packaging / Handling
- Food Processing
- Food Technology

Food quality and safety

- Detection and Analysis methods
- Food Microbiology / Toxicology / Quality Control
- Safe production methods
- Traceability of food

Micro- and Nanotechnology related to agrofood

MEASUREMENTS AND STANDARDS

Measurement Tools

- Acoustic Technology related to measurements
- Analyses / Test Facilities and Methods
- Chemical material testing
- Electrical Technology related to measurements
- Mechanical Technology related to measurements
- Optical material testing
- Optical Technology related to measurements
- Other Non Destructive Testing
- Sensor Technology related to measurements
- Thermal material testing

Amplifier, A/D Transducer

Electronic measurement systems

Recording Devices

Reference Materials

Standards

Quality Standards

Technical Standards

PROTECTING MAN AND ENVIRONMENT

Safety

Acoustic safety

Assessment of Environmental Risk and Impact

Fire Safety Technology

Hazardous Materials

Radiation Protection

Protection against intoxication

Environment

Indoor Air Pollution/Treatment

Outdoor Air Pollution/Treatment

Capture and Storage of CO₂

Climate Change mitigation

Biodiversity / Natural Heritage

Ecology

Environmental Engineering / Technology

Measurement and Detection of Pollution

Natural Disasters

Remote sensing technology

Soil and Groundwater Pollution

Remediation of Contaminated Sites

Clean Production / Green Technologies

Noise Pollution

Life Cycle Assessment

Waste Management

Biotreatment / Compost / Bioconversion

Incineration and Pyrolysis

Land and Sea Disposal

Recycling, Recovery

Radioactive Waste

Waste disinfection / detoxification

Waste to Energy /Resource

Landfill mining

Rare Earths Metals Treatment

Water Management

- Industrial Water Treatment
- Municipal Water Treatment
- Wastewater Recycling
- Drinking Water
- Rain Water
- Sludge Treatment / Disposal
- Desalination
- Water Resources Management
- Marine Environment
- Hydrology
- Flood Management
- Water in Buildings
- Underground infrastructure

OTHER