The global map of technology uses an original classification of technology that distributes all inventions in 389 non-overlapping classes. This IFRIS classification is based on the well-established WIPO hierarchical classification that distinguishes, at its finest aggregation level, 35 technological fields, these 35 fields, being grouped in 5 technological domains. The IFRIS classification adds a finer grained level of disaggregation - i.e. below the level of technological field - of 389 technological subfields.

Technological Domains Number of priority Patents Associated with other technologies
Source: Corporate Invention Board, Priority Patents 1986-2006

<table>
<thead>
<tr>
<th>Fields</th>
<th>Associated with other technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemistry</td>
<td>15,2 %</td>
</tr>
<tr>
<td>Electrical engineering</td>
<td>40,7 %</td>
</tr>
<tr>
<td>Instruments</td>
<td>15,7 %</td>
</tr>
<tr>
<td>Mechanical engineering</td>
<td>23,2 %</td>
</tr>
<tr>
<td>Other fields</td>
<td>4,1 %</td>
</tr>
</tbody>
</table>

Chemistry

Fields

Source: Corporate Invention Board

Basic materials chemistry

- Adhesives
- Cracking Hydrocarbon Oils
- Detergent Compositions
- Disinfectants
- Dyeing Of Inorganics
- Explosives
- Fatty Acids
- Fats
- Fertilisers
- Fuels
- Glue Or Gelatine
- Lubrifiant indexed
- Lubrifiant
- Materials For Miscellaneous Applications
- Modifying Combustible Gases Containing CO
- Natural Resins
- Organic Dyes
Other subjects Chemistry
Paints and inks
Polishing Compositions
Production Of Gas From Solid C-Material
Production Of Gas Coke Tar by distillation
Repellants
Wet Production Of Acetylene
Working-Up Tar
Working-Up Of Peat
**Biotechnology** Apparatus For Enzymology Or Microbiology
Compounds Of Unknown Constitution
Fermentation Or Enzyme-Using Processes
Measur Proc with Enzymes Or Micro-Orga
Micro-Organisms-General
Micro-Orga Enzymes Culture Media
Peptides
Use Enzymes Or Micro-Organisms To treat solid materials
**Chemical engineering** Bleaching
Boiling
Centrifuges
Chem and Phys Processes
Chemical Processing Of Skins Hides Or Leather
Chem Or Phys Lab Apparatus
Cleaning
Crushing and Milling
Distillation
Drying
Evaporating and extraction and separation and degaseification
Finishing Dressing Tentering Or Stretching Textile
Generating Mechanical Vibrations
Mixing
Other Separation
Phase transformation Of Gases
Plasma Technique
Regeneration of Filters
Separating Liquids and Solids
Separation of isotopes
Semi-permeable membranes
Separation apparatus and processes
Separation of solid materials
Separating Solids and Sorting
Separation
Semi-permeable membranes for separation
Separation and Filters
Spraying
Treating Textile
Environmental technology
- Absorbing noise from roads
- Combustion Products
- Filtering Gases
- Fire-Fighting
- Furnaces
- Gas-Flow Silencers
- Gathering of Domestic Refuse
- Measuring Nuclear Or X-Radiation
- Other Separating
- Pretreatment of gases
- Protection against Fire and Chemicals
- Separating by Liquids
- Separating Gases
- Separation of gases
- Separating Combination
- Solid Waste and Contaminated Soils
- Treatment of gases
- Water Treatment

Food chemistry
- Alcoholic Beverages
- Brewing Of Beer
- Chocolate
- Coffee and Tea
- Dairy Products
- Edible Oils
- Extraction Of Sugar
- Fermented Solutions
- Fodder
- New Plants
- Other Foods
- Preserving food
- Proteins for Food
- Sugar
- Sugar Juices
- Synthesis Of Sugars
- Treatment of Alcoholic Beverages
- Treatment of Dough
- Vinegar

Macromolecular chemistry, polymers
- Of Macromol Comp
- Derivatives Of Natural Macromolecules
- Inorg Or Non-Macromol Organ Subst
- Macromol with C-to-C Unsaturated Bonds
- Macromol without C-to-C Unsaturated Bonds
- Polysaccharides
- Treatment Of Rubbers

Materials, metallurgy
- Casting and Powder Metallurgy
- Glasses
Inorganic Chem
Metallurgy
Metallurgy of Iron
Refractories
**Micro-structural and Nano-technology**
Nano-Technology
**Organic fine chemistry**  Acyclic or Carbocyclic Comp
Cosmetic Preparations
Combinatorial Chemistry
Compounds with Elts Other Than C H Halogen O N S Se or Te
Heterocyclic Compounds
Organic Chemistry
Steroids
Sugars Nucleotides
Use of Cosmetics
**Pharmaceuticals**  Medical Preparations
Therap Activ Of Chem Comp
**Surface technology, coating**
Coating Metallic Material
Crystal Growth
Electrolytic Or Electrophoretic Processes
Layered Products
Liquid Application Processes

**Electrical engineering**

**Fields**  **Sub-fields**

*Source: Corporate Invention Board*

**Audio-visual technology**  Arrangements For Control
Details of colour television systems
Details of TV syst
Diagnosis for television systems
Displaying Advertising
Info Storage Based Record Carrier
Loudspeakers Microphones
Pictorial Communication
Printed Circuits
Scanning details of television
Stereophonic Systems
Stereoscopic television systems
Stereoscopic colour television systems
Basic communication processes

Computer technology
Speech Anal. Or Synth.
Static Stores

Digital communication
Transmission Of Digital Information

Electrical machinery, apparatus, energy
Cables with Special Electric Properties
Capacitors
Discharge Lamps
Electricity Boards
Electric Switches
Electrical Device stopping human beings
Electric Heating
Elect-Conductive Connections
Electric Incandescent Lamps
Lighting
Magnets
Other subjects electricity
Resistors
Spark Gaps
Static Electricity

IT methods for management
Processing Systems

Semiconductors
Semiconductor Devices

Telecommunications
Aerials
Broadcast Communication
Colour television systems
Multiplex Communication
Secret Communication
Selecting (Switches/Relays)
Telephonic Comm
Television systems
Transmission Systems
Transmission
Transmission or repro of doc
Waveguides
Wireless Communication

Instruments

Fields
Sub-fields

Source: Corporate Invention Board
Analysis of biological materials
Analysis by Chem/Phys Prop

Control
Checking Devices

Ciphering Apparatus
Control Systems in General
Educational Or Demonstration Appliances
Railway Or Like Time Or Fare Tables
Regulating Electric Variables
Regulating Non Electric Variables
Signalling Systems
Traffic Control Systems

Measurement
Chem Physical Analyses
Details Of Instruments
Geophysics
Horology
Measuring Electric Variables
Meteorology
Measuring Distances Levels
Measuring Vibrations
Measuring Speed Acceleration
Measuring Volume Flow
Measuring Temperature
Measuring Force Stress Torque Work
Measuring Length Thickness
Multivariable Measuring
Optical Measurements
Other subjects nucleonics
Radio Direction-Finding
Testing Structures
Weighing

Medical technology
Blood Vessel Filters
Devices for Introducing Media in Body
Dentistry
Electrotherapy
Furniture for Patients
Methods For Sterilising
Medical Containers
Surgery-Diagnosis
Therapy Apparatus
Veterinary
X-Ray Technique

Optics
Apparatus For Processing Exposed Photographic Materials
Devices Using Stimulated Emission
Holography
Optical Elements Systems
Photographic Processes
Photomechanics of Surfaces
### Mechanical engineering

<table>
<thead>
<tr>
<th>Fields</th>
<th>Sub-fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engines, pumps, turbines</td>
<td>Comb Engines In Gen</td>
</tr>
<tr>
<td></td>
<td>Cooling Of Machines Or Engines</td>
</tr>
<tr>
<td></td>
<td>Cyclic Machines Or Engines</td>
</tr>
<tr>
<td></td>
<td>Generating Combustion Products Of High P Or High V</td>
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<tr>
<td></td>
<td>Lubricating Of Machines Or Engines</td>
</tr>
<tr>
<td></td>
<td>Machines Or Engines for - Displacement</td>
</tr>
<tr>
<td></td>
<td>Machines Or Engines for + Displacement</td>
</tr>
<tr>
<td></td>
<td>Mach For Liquids Pumps Piston</td>
</tr>
<tr>
<td></td>
<td>Nuclear Eng.</td>
</tr>
<tr>
<td></td>
<td>Other subjects Engines and Pumps</td>
</tr>
<tr>
<td></td>
<td>Piston Machines Or Engines</td>
</tr>
<tr>
<td></td>
<td>Propulsive Mach Or Eng For Liquids or Wind</td>
</tr>
<tr>
<td></td>
<td>Steam Engine Plants</td>
</tr>
<tr>
<td>Handling</td>
<td>Containers for Storage</td>
</tr>
<tr>
<td></td>
<td>Handling Thin Material</td>
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<tr>
<td></td>
<td>Labelling Machines</td>
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<tr>
<td></td>
<td>Lifting</td>
</tr>
<tr>
<td></td>
<td>Manipulators</td>
</tr>
<tr>
<td></td>
<td>Opening Bottles</td>
</tr>
<tr>
<td></td>
<td>Packaging Machines</td>
</tr>
<tr>
<td></td>
<td>Transport of Storage Devices</td>
</tr>
<tr>
<td>Machine tools</td>
<td>Cutting</td>
</tr>
<tr>
<td></td>
<td>Grinding and Polishing</td>
</tr>
<tr>
<td></td>
<td>Handles For Hand Implements</td>
</tr>
<tr>
<td></td>
<td>Machine Tools</td>
</tr>
<tr>
<td></td>
<td>Mechanical Metal-Working</td>
</tr>
<tr>
<td></td>
<td>Multi-Purpose Tools</td>
</tr>
<tr>
<td></td>
<td>Nailing Or Stapling Tools</td>
</tr>
<tr>
<td></td>
<td>Other Hand-Held Cutting Tools</td>
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<tr>
<td></td>
<td>Percussive Tools</td>
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<tr>
<td></td>
<td>Perforating</td>
</tr>
<tr>
<td></td>
<td>Presses</td>
</tr>
<tr>
<td></td>
<td>Tools Or Benches</td>
</tr>
<tr>
<td></td>
<td>Workshop Equipment</td>
</tr>
</tbody>
</table>
Classification of technology in 389 subfields
Last Updated Friday, 23 March 2012 07:47

Working Wood
**Mechanical elements** Engineering Elts or Units
- Fluid Pressure Actuator
- Mechanical Control Systems
- Storing Distributing Non Solids
**Other special machines** Ammunitions Blasting
- Baking
- Cutting of Sugar
- Dough
- Evaporation Apparatus
- Harvested Produce
- Harvesting
- Horticulture
- Husbandry
- Manufacturind or Shaping
- Other Micro and Nao Technology
- Pitching Machines
- Planting
- Preparing Grain and Fruit
- Processes Of Compounding
- Process of Harvests
- Prod of Dairy Products
- Shoeing Of Animals
- Soil Working
- Sugar Production
- Treatment of Meat
- Traps for animals
- Weapons
- Working of Plastics
- Working Of Foodstuffs
- Working Cement or Stone
**Textile and paper machines**
- Crimping of Threads or Fibers
- Decorating Textiles
- Dyeing Or Printing Textiles
- Knitting
- Marking Inspecting Seaming Or Severing Textile
- Making Nets
- Methods for Clothes
- Mechanical Processing Of Skins Hides Or Leather
- Mechanical Or Pressure Cleaning of Textile
- Other Subjects textiles and papers
- Other Treatments
- Paper Making
- Pleating Kilting Or Goffering Textile
- Production of Brushes
Printing
Repairing Footwear
Sewing
Shedding Mechanisms
Textile Fabrics
Threads or Fibers
Working Paper

**Thermal processes and apparatus**
Burners
Combustion Apparatus Using Solid Fuel
Combustion Apparatus Using Fluent Fuel
Controlling Combustion
Combustion Chambers
Dom Stoves For Solid Fuels
Extinguishing Devices
Feeding Fuel To Combustion Apparatus
Furnaces ovens
Grates
Heat Exchange
Ice
Refrigeration Systems
Steam generation

**Transport**
Aircraft
Auxiliaries on Vessel
Land Vehicles
Launching of Vessels
Marine Propulsion
Railways
Ships
Vehicles
Weapons on Vessels

**Other fields**

<table>
<thead>
<tr>
<th>Fields</th>
<th>Sub-fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Civil engineering</td>
<td>Bridges</td>
</tr>
<tr>
<td>Building</td>
<td></td>
</tr>
<tr>
<td>Draining of roads</td>
<td></td>
</tr>
<tr>
<td>Earth Or Rock Drilling</td>
<td></td>
</tr>
<tr>
<td>Hydraulic Eng Found Soil-Shifting</td>
<td></td>
</tr>
</tbody>
</table>

Source: Corporate Invention Board
Landing for helicopters
Locking Safing
Openings in Building Ladder
Other Subjects Building
Permanent ways
Platforms or refuge islands
Protection again snow or sand drifts
Road signs or traffic signals
Sensitive and restricting and safety in roads
Street Land Cleaning
Surfaces for roads and sport grounds
Water supply sewerage
Furniture, games  Furniture and Dom Equipt
Sports and Games
Other consumer goods  Aids For Music
Automatic Musical Instruments
Bookbinding
Brushes
Corsets
Cooling Or Freezing Apparatus
Decorative Arts
Electrophonic Musical Instruments
Fasteners and Braselets
Footwear
Hand or Travelling Articles
Headwear
Laces
Laundering
Methods For Life-Saving
Musical Instruments
Organs Harmoniums
Outerwear
Other Life saving and Amusement
Pianos
Rope non electric cable
Saddlery and Upholstery
Shirts
Sound-Producing Devices
Suspenders
Tobacco
Trimmings
Wall Floor Covering
Wigs
Writing Implements