

# ISIC Rev.3.1

## **Code** *Description and explanatory notes*

### **D** **Manufacturing**

Manufacturing comprises units engaged in the physical or chemical transformation of materials, substances, or components into new products. The materials, substances, or components transformed are raw materials that are products of agriculture, forestry, fishing, mining or quarrying as well as products of other manufacturing activities.

The units in the manufacturing section are often described as plants, factories or mills and characteristically use power-driven machines and materials-handling equipment. However, units that transform materials or substances into new products by hand or in the worker's home and those engaged in selling to the general public products made on the same premises from which they are sold, such as bakeries and custom tailors, are also included in this section.

Manufacturing units may process materials or may contract with other units to process their materials for them. Both types of units are included in manufacturing.

The new product of a manufacturing unit may be finished in the sense that it is ready for utilization or consumption, or it may be semi-finished in the sense that it is to become an input for further manufacturing. For example, the product of the alumina refinery is the input used in the primary production of aluminium; primary aluminium is the input to an aluminium wire drawing plant; and aluminium wire is the input for a fabricated wire product manufacturing unit.

Assembly of the component parts of manufactured products is considered manufacturing. This includes the assembly of manufactured products from either self-produced or purchased components. Assembly of self-produced prefabricated components of constructions at the construction site is classified as manufacturing when the manufacturing and assembly are integrated activities. When the assembly is performed by separate units, the activity is appropriately classified in division 45 (Construction). Therefore, assembly on the site of not self-produced prefabricated, integral parts into bridges, water tanks, storage and warehouse facilities, railroad and elevated rights of way, lift and escalator, plumbing, sprinkler, central heating, ventilating and air conditioning, lighting, electrical and telecommunications wiring systems of buildings, and all kinds of structures, is classified in Construction.

Assembly and installation of machinery and equipment in mining, manufacturing, commercial or other units, when carried out as a specialized activity, are classified in the same class of manufacturing as manufacture of the item installed.

Assembly and installation of machinery and equipment that are performed as a service incidental to the sale of the goods by a unit primarily engaged in manufacturing, wholesale trade or retail trade, are classified with its main activity.

Activities of units primarily engaged in maintenance and repair of industrial, commercial and similar machinery and equipment are, in general, classified in the same class of manufacturing as those specializing in manufacturing the goods. However, units engaged in repair of office and computing machinery are classified in class 7250. Units the main activity of which is repair of household appliances, equipment and furnishings, motor vehicles and other consumer goods are, as a general rule, classified in the appropriate class of division 50 (Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel) or 52 (Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods) in accordance with the kind of goods that are repaired.

Substantial alteration, renovation or reconstruction of goods is generally considered to be manufacturing.

Manufacture of specialized components and parts of, and accessories and attachments to, machinery and equipment is, as a general rule, classified in the same class as the manufacture of the machinery and equipment for which the parts and accessories are intended. Manufacture of unspecialized components and parts of machinery and equipment, e.g. engines, pistons, electric motors, electrical assemblies, valves, gears, roller bearings, is classified in the appropriate class of manufacturing, without regard to the machinery and equipment in which these items may be included. However, making specialized components and accessories by moulding or extruding plastics materials is included in class 2520.

The recycling of waste is also included in Manufacturing.

Remark: The boundaries of manufacturing and the other sectors of the classification system can be somewhat blurry. As a general rule, the units in the manufacturing sector are engaged in the transformation of materials into new products. Their output is a new product. However, the definition of what constitutes a new product can be somewhat subjective. As clarification, the following activities are considered manufacturing in ISIC:

- Milk pasteurizing and bottling (see 1520);
- Fresh fish processing (oyster shucking, fish filleting), not done on a fishing boat (see 1512);
- Printing and related activities (see 2221, 2222);
- Ready-mixed concrete production (see 2695);
- Leather converting (see 1911);
- Wood preserving (see 2010);
- Electroplating, plating, metal heat treating, and polishing (see 2892);
- Rebuilding or remanufacturing machinery (e.g., automobile engines, see 3410);
- Ship repair and renovation (see 3511);
- Tyre retreading (see 2511).

Conversely, there are activities that though sometimes considered manufacturing, are classified in another section of ISIC (in other words, they are not classified as manufacturing). They include:

- Logging, classified in section A (Agriculture, hunting and forestry);
- Beneficiating of ores and other minerals, classified in section C (Mining);
- Construction of structures and fabricating operations performed at the site of construction, classified in section F (Construction);

## 22 Publishing, printing and reproduction of recorded media

This division includes printing and publishing whether or not connected with printing. Publishing involves financial, technical, artistic, legal and marketing activities, among others, but not predominantly. The primary breakdown of this division is by units engaged in publishing, whether or not connected with printing (group 221) versus units engaged in printing only (group 222). The breakdown of publishing activities into classes is based on the type of printed matter or recorded media published.

This division includes units engaged in the publishing of newspapers, magazines, other periodicals, and books. In general, these units, which are known as publishers, issue copies of works for which they usually possess copyright. Works may be in one or more formats including traditional print form and electronic form. Publishers may publish works originally created by others for which they have obtained the rights and/or works that they have created in-house.

The printing activities print products, such as newspapers, books, periodicals, business forms, greeting cards, and other materials, and perform support activities, such as bookbinding, plate-making services, and data imaging. The support activities included here are an integral part of the printing industry, and a product (a printing plate, a bound book, or a computer disk or file) that is an integral part of the printing industry is almost always provided by these operations.

Processes used in printing include a variety of methods for transferring an image from a plate, screen, or computer file to some medium, such as paper, plastics, metal, textile articles, or wood. The most prominent of these methods entails the transfer of the image from a plate or screen to the medium (lithographic, gravure, screen, and flexographic printing). A rapidly growing new technology uses a computer file to directly "drive" the printing mechanism to create the image and new electrostatic and other types of equipment (digital or non-impact printing).

Though printing and publishing can be carried out by the same unit (a newspaper, for example), it is less and less the case that these distinct activities are carried out in the same physical location. When publishing and printing are done in the same unit, the unit is classified in group 221 (Publishing) even if the receipts for printing exceed those for publishing.

Units engaged in both online publishing and other publishing are included here, as represented, for example, by a newspaper publisher who also publishes an online version of the newspaper.

This division excludes units engaged exclusively in online publishing, see 7240.

This division excludes publishing of software, see 7221, and the publishing of motion pictures and videotapes, see 9211.

## 29 Manufacture of machinery and equipment n.e.c.

This division covers the manufacture of machinery and equipment that act independently on materials either mechanically or thermally or perform operations on materials (such as handling, spraying, weighing or packing), including their mechanical components that produce and apply force, and any specially manufactured primary parts. This category includes fixed and mobile or hand-held devices, regardless of whether they are designed for industrial, building and civil engineering, agricultural, military or home use. The manufacture of weapons and special equipment for passenger or freight transport within demarcated premises also belongs within this division.

The manufacture of metal products for general use (division 28), associated control devices, computer equipment, measurement and testing equipment, electricity distribution and control apparatus (divisions 30-33) and general-purpose motor vehicles (divisions 34 and 35) is excluded.

Division 29 distinguishes between the manufacture of general-purpose machinery and components and those with special applications and includes the manufacture of:

- motors and engines (except electric motors), turbines, pumps, compressors, valves and transmissions

- ovens, burners, lifting and handling equipment, cooling and ventilation equipment, other general-purpose machinery (e.g. packaging equipment, weighing machines and water purification equipment)
  - agricultural machinery, machine tools, machinery for other specific industrial purposes (e.g. for metal production, building and civil engineering, mining or the manufacture of foodstuffs, textiles, paper, printed matter, plastic and rubber products)
  - weapons and munitions
- 291 Manufacture of general-purpose machinery
- 2911 Manufacture of engines and turbines, except aircraft, vehicle and cycle engines  
This class includes:
- manufacture of internal combustion piston engines and parts thereof, except motor vehicle, aircraft and cycle propulsion engines:
    - \* marine engines
    - \* railway engines
  - manufacture of turbines and parts thereof:
    - \* steam turbines and other vapour turbines
    - \* hydraulic turbines, waterwheels and regulators thereof
    - \* wind turbines
    - \* gas turbines, except turbojets or turbopropellers for aircraft propulsion
  - manufacture of boiler-turbine sets
- This class excludes:
- manufacture of electric generator sets, see 3110
  - manufacture of electrical equipment and components of internal combustion engines, see 3190
  - manufacture of motor vehicle, aircraft or cycle propulsion engines, see 3410, 3530, 3591
  - manufacture of turbojets and turbopropellers, see 3530
- 2912 Manufacture of pumps, compressors, taps and valves  
This class includes:
- manufacture of air or vacuum pumps, air or other gas compressors
  - manufacture of pumps for liquids whether or not fitted with a measuring device
  - manufacture of pumps designed for fitting to internal combustion engines: oil, water and fuel pumps for motor vehicles etc.
- This class also includes:
- manufacture of fluid power equipment and pneumatic engines and motors
  - manufacture of industrial taps and valves, including regulating valves and intake taps
  - manufacture of sanitary taps and valves
  - manufacture of heating taps and valves
  - manufacture of hand pumps
- This class excludes:
- manufacture of valves of unhardened vulcanized rubber, glass or of ceramic materials, see 2519, 2610 or 2691
  - manufacture of hydraulic transmission equipment, see 2913
  - manufacture of household-type fans, see 2930
  - manufacture of inlet and exhaust valves of internal combustion engines, see 3430, 3530
- 2913 Manufacture of bearings, gears, gearing and driving elements  
This class includes:
- manufacture of ball and roller bearings and parts thereof
  - manufacture of mechanical power transmission equipment:
    - \* transmission shafts and cranks: camshafts, crankshafts, cranks etc.
    - \* bearing housings and plain shaft bearings
  - manufacture of gears, gearing and gear boxes and other speed changers
  - manufacture of clutches and shaft couplings
  - manufacture of flywheels and pulleys
  - manufacture of articulated link chain
  - manufacture of power transmission chain
  - manufacture of hydraulic transmission equipment
- This class excludes:
- manufacture of other chain, see 2899
  - manufacture of electromagnetic clutches, see 3190
  - manufacture of sub-assemblies of power transmission equipment identifiable as parts of vehicles or aircraft, see divisions 34 and 35
- 2914 Manufacture of ovens, furnaces and furnace burners

This class includes:

- manufacture of electrical and other industrial and laboratory furnaces and ovens, including incinerators
- manufacture of burners

This class also includes:

This class excludes:

- manufacture of agricultural dryers, see 2925
- manufacture of bakery ovens, see 2925
- manufacture of dryers for wood, paper pulp, paper or paperboard, see 2929
- manufacture of household ovens, see 2930
- manufacture of medical, surgical or laboratory sterilizers, see 3311

## 2915 Manufacture of lifting and handling equipment

This class includes:

- manufacture of hand-operated or power-driven lifting, handling, loading or unloading machinery:
  - \* pulley tackle and hoists, winches, capstans and jacks
  - \* derricks, cranes, mobile lifting frames, straddle carriers etc.
  - \* works trucks, whether or not fitted with lifting or handling equipment, whether or not self-propelled, of the type used in factories
  - \* mechanical manipulators and industrial robots specifically designed for lifting, handling, loading or unloading
- manufacture of conveyors, teleferics etc.
- manufacture of lifts, escalators and moving walkways
- manufacture of parts specialized for lifting and handling equipment

This class also includes:

- maintenance of lifts and escalators

This class excludes:

- manufacture of continuous-action elevators and conveyors for underground use, see 2924
- manufacture of mechanical shovels, excavators and shovel loaders, see 2924
- manufacture of industrial robots for multiple uses, see 2929
- manufacture of floating cranes, railway cranes, crane-lorries, see 3511, 3520
- installation of lifts and elevators, see 4530

## 2919 Manufacture of other general-purpose machinery

This class includes:

- manufacture of refrigerating or freezing industrial equipment, including assemblies of major components
- manufacture of air-conditioning machines, including for motor vehicles
- manufacture of non-domestic fans
- manufacture of weighing machinery (other than sensitive laboratory balances):
  - \* household and shop scales, platform scales, scales for continuous weighing, weighbridges, weights etc.
- manufacture of filtering or purifying machinery and apparatus for liquids
- manufacture of equipment for projecting, dispersing or spraying liquids or powders:
  - \* spray guns, fire extinguishers, sandblasting machines, steam cleaning machines etc.
- manufacture of packing and wrapping machinery:
  - \* filling, closing, sealing, capsuling or labelling machines etc.
- manufacture of machinery for cleaning or drying bottles and for aerating beverages
- manufacture of distilling or rectifying plant for petroleum refineries, chemical industries, beverage industries etc.
- manufacture of heat exchangers
- manufacture of machinery for liquefying air or gas
- manufacture of gas generators
- manufacture of calendering or other rolling machines and cylinders thereof (except for metal and glass)
- manufacture of centrifuges (except cream separators and clothes dryers)
- manufacture of gaskets and similar joints made of a combination of materials or layers of the same

This class excludes:

- manufacture of agricultural spraying machinery, see 2921
- manufacture of metal or glass rolling machinery and cylinders thereof, see 2923, 2929
- manufacture of agricultural dryers, machinery for filtering or purifying food, see 2925
- manufacture of cream separators, see 2925
- manufacture of industrial clothes dryers, see 2929
- manufacture of domestic refrigerating or freezing equipment, see 2930
- manufacture of domestic fans, see 2930

- manufacture of sensitive balances, see 3312
- 292      **Manufacture of special-purpose machinery**
- 2921     **Manufacture of agricultural and forestry machinery**  
This class includes:
- manufacture of tractors used in agriculture and forestry
  - manufacture of walking (pedestrian-controlled) tractors
  - manufacture of mowers, including lawnmowers
  - manufacture of agricultural self-loading or self-unloading trailers or semi-trailers
  - manufacture of agricultural machinery for soil preparation, planting or fertilizing:  
\* ploughs, manure spreaders, seeders, harrows etc.
  - manufacture of harvesting or threshing machinery:  
\* harvesters, threshers, sorters etc.
  - manufacture of milking machines
  - manufacture of spraying machinery for agricultural use
  - manufacture of diverse agricultural machinery:  
\* poultry-keeping machinery, bee-keeping machinery, equipment for preparing fodder etc.
  - \* machines for cleaning, sorting or grading eggs, fruit etc.
- This class excludes:
- manufacture of non-power-driven agricultural hand tools, see 2893
  - manufacture of conveyors for farm use, see 2915
  - manufacture of power-driven hand tools, see 2922
  - manufacture of cream separators, see 2925
  - manufacture of machinery to clean, sort or grade seed, grain or dried leguminous vegetables, see 2925
  - manufacture of road tractors for semi-trailers, see 3410
- 2922     **Manufacture of machine tools**  
This class includes:
- manufacture of machine tools for working metals and other materials (wood, bone, stone, hard rubber, hard plastics, cold glass etc.), including those using a laser beam, ultrasonic waves, plasma arc, magnetic pulse etc.
  - manufacture of machine tools for turning, drilling, milling, shaping, planning, boring, grinding etc.
  - manufacture of stamping or pressing machine tools
  - manufacture of punch presses, hydraulic presses, hydraulic brakes, drop hammers, forging machines etc.
  - manufacture of draw-benches, thread rollers or machines for working wires
  - manufacture of machines for nailing, stapling, glueing or otherwise assembling wood, cork, bone, hard rubber or plastics etc.
  - manufacture of gas or electric welding, brazing or soldering machines
  - manufacture of hand tools, with self-contained electric or non-electric motor or pneumatic drive
  - manufacture of rotary or rotary percussion drills, chainsaws, filing machines, riveters, sheet metal cutters etc.
  - manufacture of presses for the manufacture of particle board and the like
- This class also includes:
- manufacture of parts and accessories for the machine tools listed above: work holders, dividing heads
- This class excludes:
- manufacture of interchangeable tools for hand tools or machine tools (drills, punches, dies, taps, milling cutters, turning tools, saw blades, cutting knives etc.), see 2893
  - manufacture of machinery used in metal mills or foundries, see 2923
  - manufacture of machinery for mining and quarrying, see 2924
- 2923     **Manufacture of machinery for metallurgy**  
This class includes:
- manufacture of machines and equipment for handling hot metals:  
\* converters, ingot moulds, ladles, casting machines
  - manufacture of metal-rolling mills and rolls for such mills
- This class excludes:
- manufacture of draw-benches, see 2922
  - manufacture of moulding boxes and moulds (except ingot moulds), see 2929
  - manufacture of machines for forming foundry moulds, see 2929
- 2924     **Manufacture of machinery for mining, quarrying and construction**  
This class includes:
- manufacture of continuous-action elevators and conveyors for underground use

- manufacture of boring, cutting, sinking and tunnelling machinery (whether or not for underground use)
  - manufacture of machinery for treating minerals by screening, sorting, separating, washing, crushing etc.
  - manufacture of concrete and mortar mixers
  - manufacture of earth-moving machinery:
    - \* bulldozers, angle-dozers, graders, scrapers, levellers, mechanical shovels, shovel loaders etc.
  - manufacture of piledrivers and pile-extractors, mortar spreaders, bitumen spreaders, concrete surfacing machinery etc.
  - manufacture of tracklaying tractors and tractors used in construction or mining
- This class excludes:
- manufacture of lifting and handling equipment, see 2915
  - manufacture of other tractors, see 2921, 3410
  - manufacture of machine tools for working stone, including machines for splitting or clearing stone, see 2922

## 2925 Manufacture of machinery for food, beverage and tobacco processing

This class includes:

- manufacture of agricultural dryers
- manufacture of machinery for the dairy industry:
  - \* cream separators
  - \* milk processing machinery (homogenizers and irradiators)
  - \* milk converting machinery (butter chums, butter workers and moulding machines)
  - \* cheese-making machines (homogenizers, moulders, presses) etc.
- manufacture of machinery for the grain milling industry:
  - \* machinery to clean, sort or grade seeds, grain or dried leguminous vegetables (winnowers, sieving belts, separators, grain brushing machines etc.)
  - \* machinery to produce flour and meal etc. (grinding mills, feeders, sifters, bran cleaners, blenders, rice hullers, pea splitters)
- manufacture of presses, crushers etc. used to make wine, cider, fruit juices etc.
- manufacture of machinery for the bakery industry or for making macaroni, spaghetti or similar products:
  - \* bakery ovens, dough mixers, dough-dividers, moulders, slicers, cake depositing machines etc.
- manufacture of machines and equipment to process diverse foods:
  - \* machinery to make confectionery, cocoa or chocolate; to manufacture sugar; for breweries; to process meat or poultry, to prepare fruit, nuts or vegetables; to prepare fish, shellfish or other seafood
  - \* machinery for filtering and purifying
  - \* other machinery for the industrial preparation or manufacture of food or drink
- manufacture of machinery for the extraction or preparation of animal or vegetable fats or oils
- manufacture of machinery for the preparation of tobacco and for the making of cigarettes or cigars, or for pipe or chewing tobacco or snuff
- manufacture of machinery for the preparation of food in hotels and restaurants

This class excludes:

- manufacture of packing, wrapping and weighing machinery, see 2919
- manufacture of cleaning, sorting or grading machinery for eggs, fruit or other crops (except seeds, grains and dried leguminous vegetables), see 2921

## 2926 Manufacture of machinery for textile, apparel and leather production

This class includes:

- manufacture of textile machinery:
  - \* machines for preparing, producing, extruding, drawing, texturing or cutting man-made textile fibres, materials or yarns
  - \* machines for preparing textile fibres: cotton gins, bale breakers, garnetters, cotton spreaders, wool scouters, wool carbonizers, combs, carders, roving frames etc.
  - \* spinning machines
  - \* machines for preparing textile yarns: reelers, warpers and related machines
  - \* weaving machines (looms), including hand looms
  - \* knitting machines
  - \* machines for making knotted net, tulle, lace, braid etc.
- manufacture of auxiliary machines or equipment for textile machinery:
  - \* dobbies, jacquards, automatic stop motions, shuttle changing mechanisms, spindles and spindle flyers etc.
- manufacture of machinery for fabric processing:
  - \* machinery for washing, bleaching, dyeing, dressing, finishing, coating or impregnating textile fabrics
- \* manufacture of machines for reeling, unreeling, folding, cutting or pinking textile fabrics
- manufacture of laundry machinery:

- \* ironing machines, including fusing presses
  - \* commercial washing and drying machines
  - \* dry-cleaning machines
  - manufacture of sewing machines, sewing machine heads and sewing machine needles (whether or not for household use)
  - manufacture of machines for producing or finishing felt or non-wovens
  - manufacture of leather machines:
  - \* machinery for preparing, tanning or working hides, skins or leather
- This class excludes:
- manufacture of paper or paperboard cards for use on jacquard machines, see 2109
  - manufacture of ironing machines of the calender type, see 2919
  - manufacture of machines used in bookbinding, see 2929
  - manufacture of textile printing machinery, see 2929
  - manufacture of domestic washing and drying machines, see 2930

## 2927 Manufacture of weapons and ammunition

This class includes:

- manufacture of tanks and other fighting vehicles
- manufacture of heavy weapons (artillery, mobile guns, rocket launchers, torpedo tubes, heavy machine guns)
- manufacture of small arms (revolvers, shotguns, light machine guns)
- manufacture of air or gas guns and pistols
- manufacture of war ammunition
- manufacture of military ballistic and guided missiles

This class also includes:

- manufacture of hunting, sporting or protective firearms and ammunition
- manufacture of explosive devices such as bombs, mines and torpedoes

This class excludes:

- manufacture of percussion caps, detonators or signalling flares, see 2429
- manufacture of cutlasses, swords, bayonets etc., see 2893
- manufacture of armoured vehicles for the transport of banknotes or valuables, see 3410

## 2929 Manufacture of other special-purpose machinery

This class includes manufacture of special-purpose machinery not elsewhere classified.

This class includes:

- manufacture of machinery for making paper pulp
- manufacture of paper and paperboard making machinery
- manufacture of dryers for wood, paper pulp, paper or paperboard
- manufacture of machinery producing articles of paper or paperboard
- manufacture of machinery for working soft rubber or plastics or for the manufacture of products of these materials:
- \* extruders, moulders, pneumatic tyre making or retreading machines and other machines for making a specific rubber or plastic product
- manufacture of printing and bookbinding machines and machines for activities supporting printing, including machines for printing on textiles and other materials
- manufacture of moulding boxes for any material; mould bases; moulding patterns; moulds (except ingot moulds)
- machinery for producing tiles, bricks, shaped ceramic pastes, pipes, graphite electrodes, blackboard chalk, foundry moulds etc.
- manufacture of semi-conductor manufacturing machinery
- manufacture of industrial robots for multiple uses
- manufacture of diverse special machinery and equipment:
- \* machines to assemble electric or electronic lamps, tubes (valves) or bulbs
- \* machines for production or hot-working of glass or glassware, glass fibre or yarn
- \* machinery or apparatus for isotopic separation
- \* manufacture of industrial clothes dryers

This class excludes:

- manufacture of machinery or equipment to work hard rubber, hard plastics or cold glass, see 2922
- manufacture of ingot moulds, see 2923
- manufacture of household appliances, see 2930
- manufacture of photocopy machines etc., see 3000

## 30 Manufacture of office, accounting and computing machinery

The manufacture of office machinery (e.g. photocopiers, cash registers etc.) and computer equipment (e.g. computers, word processors and peripherals) is considered to include installation, but not maintenance (725), software design (722) or the manufacture of electronic components (321).

- 31 **Manufacture of electrical machinery and apparatus n.e.c.**  
 This division includes the manufacture of products that generate, distribute and store electrical power. Also included is the manufacture of electrical lighting and signalling equipment. This division excludes the manufacture of electronics products (division 32) and electric household appliances (division 29).
- 311 **Manufacture of electric motors, generators and transformers**  
 This class includes:  
 - manufacture of alternating current (AC) motors or generators  
 - manufacture of direct current (DC) motors or generators  
 - manufacture of universal AC/DC motors  
 - manufacture of AC or DC generator sets  
 - manufacture of electric rotary or static converters  
 - manufacture of electrical transformers  
 This class excludes:  
 - manufacture of vehicle generators and cranking motors, see 3190  
 - manufacture of diodes, see 3210
- 312 **Manufacture of electricity distribution and control apparatus**  
 This class includes:  
 - manufacture of electrical apparatus for switching or protecting electrical circuits, or for making connections to or in electrical circuits:  
 \* switches, fuses, lightning arresters, voltage limiters, surge suppressors, plugs, junction boxes, relays, sockets, lamp holders  
 - manufacture of electric control or distribution boards, panels, consoles, desks, cabinets and other bases  
  
 This class also includes:  
 This class excludes:  
 - manufacture of parts of these apparatus, made of moulded plastics, glass or ceramic material, see 2520, 2610, 2691  
 - manufacture of fuse wire or strip, see 2720  
 - manufacture of carbon or graphite electrodes, see 3190  
 - manufacture of boards, panels, consoles etc. for use in line telephony or line telegraphy, see 3220
- 313 **Manufacture of insulated wire and cable**  
 This class includes:  
 - manufacture of insulated wire, cable, strip and other insulated conductors, whether or not fitted with connectors  
 - manufacture of optical fibre cables for coded data transmission: telecommunications, video, control,  
 This class excludes:  
 - manufacture of uninsulated non-ferrous metal wire, see 2720  
 - manufacture of uninsulated metal cable or insulated cable not capable of being used as a conductor of electricity, see 2899  
 - manufacture of wiring sets, see 3190  
 - manufacture of optical fibres and optical fibre cables for live transmission of images: endoscopy, lighting, live images, see 3320
- 314 **Manufacture of accumulators, primary cells and primary batteries**  
 This class includes:  
 - manufacture of primary cells and primary batteries  
 \* cells containing manganese dioxide, mercuric dioxide, silver oxide etc.  
 - manufacture of electric accumulators, including parts thereof:  
 \* separators, containers, covers  
 \* lead-acid, nickel-cadmium, nickel-iron accumulators etc.
- 315 **Manufacture of electric lamps and lighting equipment**  
 This class includes:  
 - manufacture of electric filament or discharge lamps:  
 \* ultraviolet or infrared lamps  
 \* arc lamps  
 \* flashbulbs, flash cubes etc.  
 - manufacture of electric lamps and lighting fittings:  
 \* chandeliers, table, desk, bedside or floor-standing lamps, even non-electric  
 \* portable electric lamps

- \* illuminated signs and nameplates etc., including neon signs
- \* outdoor and road lighting
- \* lighting sets of a kind used for Christmas trees

This class also includes:

- manufacture of non-electric lighting equipment:
  - \* gas lamps
  - \* miners' carbide lights
- manufacture of lighting equipment for vehicles, except motor vehicles and cycles

This class excludes:

- manufacture of lighting equipment for motor vehicles and cycles, see 3190
- manufacture of electronic discharge lamps and photo flash apparatus, see 3320

### 319 Manufacture of other electrical equipment n.e.c.

This class includes:

- manufacture of electrical ignition or starting equipment for internal combustion engines: ignition magnetos, magneto-dynamos, ignition coils, sparking plugs, glow plugs, starter motors, generators (dynamos, alternators), voltage regulators etc.
  - manufacture of wiring sets and wiring harnesses
  - manufacture of windscreen wipers and electrical defrosters and demisters for motor vehicles and motorcycles
  - manufacture of defrosters and demisters with electrical resistors for aircraft, ships, trains etc.
  - manufacture of dynamos for cycles
  - manufacture of electrical lighting and sound or visual signalling equipment for cycles and motor vehicles: lamps, horns, sirens etc.
  - manufacture of electrical signalling, safety or traffic control equipment for motorways, roads or streets, railways and tramways, inland waterways, ports and harbours and airports
  - manufacture of diverse electrical sound or visual signalling apparatus:
    - \* bells, sirens, indicator panels, burglar and fire alarms etc.
  - manufacture of electromagnets, including electromagnetic or permanent magnet chucks, clutches, brakes, couplings, clamps or lifting heads
  - manufacture of electrical insulators and insulating fittings, except of glass or ceramics
  - manufacture of insulating fittings for electrical machines or equipment, except of ceramics or plastics
  
  - manufacture of carbon or graphite electrodes
  - manufacture of electrical conduit tubing and joints for such tubing, of base metal lined with insulating material
- This class excludes:
- manufacture of glass envelopes for lamps, see 2610
  - manufacture of hand-held electrically operated spray guns, see 2919
  - manufacture of electric lawnmowers, see 2921
  - manufacture of electric household appliances, see 2930
  - manufacture of electronic valves and tubes (including cold cathode valves), see 3210
  - manufacture of electrically operated hand-held medical or dental instruments, see 3311

### 32 Manufacture of radio, television and communication equipment and apparatus

This division covers the manufacture of electronic equipment for broadcasting and transmission, data communications equipment, receivers, recorders and reproduction equipment. The division covers all intermediate products from professional equipment to that for the general public.

It should be pointed out that the installation and repair of professional equipment are also covered by this division. On the other hand, the repair of household equipment falls under 5260, and the installation of wiring, aerials or alarms falls under construction (4530).

### 321 Manufacture of electronic valves and tubes and other electronic components

This class includes:

- manufacture of thermionic, cold cathode or photocathode valves or tubes:
  - \* television picture tubes, television camera tubes, image converters and intensifiers, microwave tubes, receiver or amplifier valves or tubes etc.
- manufacture of diodes, transistors and similar semiconductor devices
- manufacture of photosensitive semiconductor devices, including photovoltaic cells and single solar cells
- manufacture of mounted piezoelectric crystals
- manufacture of electronic integrated circuits and micro-assemblies:
  - \* monolithic integrated circuits, hybrid integrated circuits and electronic micro-assemblies of moulded module, micromodule or similar types
- manufacture of printed circuit boards, bare boards
- manufacture of electrical capacitors (or condensers), including power capacitors

- manufacture of resistors, including rheostats and potentiometers
  - manufacture of electronic components for use on printed circuits, except transformers
  - manufacture of liquid crystal displays (LCDs)
- This class excludes:
- manufacture of loaded printed circuit assemblies (classified in the same class as the manufacture of the complete machine)
  - manufacture of transformers, see 3110
  - manufacture of switches, see 3120
- 322      **Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy**
- This class includes:
- manufacture of apparatus for television transmission, including manufacture of relay transmitters and television transmitters for industrial use
  - manufacture of television cameras
  - manufacture of transmission apparatus for radio-broadcasting
  - manufacture of transmission apparatus for radio-telephony:
    - \* fixed transmitters and transmitter-receivers, radio-telephony apparatus for transport equipment, radio-telephones, other transponders etc.
  - manufacture of apparatus for line telephony:
    - \* telephone sets, fax machines, automatic and non-automatic switchboards and exchanges, telex and teleprinter apparatus etc.
  - manufacture of mobile telephones
  - manufacture of data communications equipment:
    - \* routers, gateways, hubs, bridges
- This class also includes:
- installation of telecommunications equipment
- This class excludes:
- manufacture of electronic components, see 3210
  - installation of electrical or telecommunications wiring in buildings, see 4530
  - repair of mobile telephones, see 5260
- 323      **Manufacture of television and radio receivers, sound or video recording or reproducing apparatus, and associated goods**
- This class includes:
- manufacture of television receivers, including video monitors and video projectors
  - manufacture of video recording or reproducing apparatus, including camcorders
  - manufacture of digital cameras
  - manufacture of radio-broadcasting receivers
  - manufacture of magnetic tape recorders and other sound recording apparatus, including telephone answering machines, cassette-type recorders etc.
  - manufacture of turntables (record decks), record players, cassette players
  - manufacture of CD players, DVD players etc.
  - manufacture of microphones, loudspeakers, headphones, earphones, amplifiers and sound amplifier sets
  - manufacture of specialized parts for equipment in this class:
    - \* pick-ups, tone arms, sound-heads, tables for turntables, aerials, aerial reflectors and aerial rotors, cable converters, TV decoders
- This class also includes:
- manufacture of sound electro-acoustic apparatus, conference systems, portable sound systems
- This class excludes:
- publishing and reproduction of pre-recorded audio and video discs and tapes, see groups 221 and 223, 9211
- 33        **Manufacture of medical, precision and optical instruments, watches and clocks**
- This division covers not only scientific and technical instruments (e.g. electro-diagnostic apparatus, avionic equipment etc.) but also photographic and cinematographic equipment, industrial process control equipment, and personal goods (e.g. watches, spectacles etc.).
- This division also includes the installation and repair of such industrial equipment, although the repair of personal goods falls under group 526.
- 331      **Manufacture of medical appliances and instruments and appliances for measuring, checking, testing, navigating and other purposes, except optical instruments**

3312 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment

This class includes:

- manufacture of laboratory-type sensitive balances
- manufacture of drawing, marking-out or mathematical calculating instruments:
  - \* measuring rods and tapes, micrometers, callipers and gauges etc.
- manufacture of microscopes other than optical microscopes and diffraction apparatus
- manufacture of apparatus for measuring and checking electrical quantities:
  - \* oscilloscopes, spectrum analyzers, crosstalk meters, instruments for checking current, voltage, resistance etc.
- manufacture of apparatus for measuring or checking non-electrical quantities:
  - \* radiation detectors and counters, apparatus for testing and regulating vehicle motors etc.
- manufacture of navigational, meteorological, geophysical and related instruments and apparatus:
  - \* surveying instruments, oceanographic or hydrologic instruments, seismometers, range-finders, automatic pilots, sextants, ultrasonic sounding instruments etc.
  - \* air navigation instruments and systems, radar apparatus, radio navigational aid apparatus
- manufacture of electricity supply meters and supply meters for water, gas, petrol etc.
- manufacture of machines and appliances for testing the mechanical properties of materials
- manufacture of instruments and apparatus for carrying out physical or chemical analyses:
  - \* polarimeters, photometers, refractometers, colorimeters, spectrometers, pH-meters, viscometers, surface tension instruments etc.
- manufacture of instruments and apparatus for measuring or checking the flow, level, pressure or other variables of liquids or gases:
  - \* flow meters, level gauges, manometers, heat meters etc.
- manufacture of diverse measuring, checking or testing instruments, apparatus or machines:
  - \* hydrometers, thermometers, barometers, revolution counters, taximeters, pedometers, tachometers, balancing machines, test benches, comparators etc.
- manufacture of automatic regulating or controlling instruments and apparatus (except industrial process control equipment):
  - \* thermostats, pressure controller, humidity regulators
  - \* regulators of electrical quantities

This class excludes:

- manufacture of pumps incorporating measuring devices, see 2912
- manufacture of medical and surgical instruments, see 3311
- manufacture of industrial process control equipment, see 3313
- manufacture of binoculars, monoculars and similar optical devices, see 3320
- manufacture of optical microscopes, see 3320

3313 Manufacture of industrial process control equipment

This class includes:

- manufacture of instruments and apparatus used for automatic continuous measurement and control of variables such as temperature, pressure, viscosity and the like of materials or products as they are being manufactured or otherwise processed

332 Manufacture of optical instruments and photographic equipment

This class includes:

- manufacture of optical elements mounted or not:
  - \* prisms, lenses, optical mirrors, colour filters, polarizing elements etc. of glass or other material
  - \* optical fibres and optical fibre cables for live transmission of images: endoscopy, lighting, live images
  - \* spectacle lenses and contact lenses
  - \* spectacle frames and frames fitted with lenses, whether or not the lenses are optically worked: sunglasses, protective glasses, corrective glasses etc.
  - \* unworked optical elements other than of glass
- manufacture of optical instruments:
  - \* optical microscopes, equipment for microphotography and microprojection, magnifying glasses, reading glasses, thread counters etc.
  - \* binoculars, sight telescopes, telescopic sights and observation telescopes, astronomical equipment etc.
  - \* lasers, excluding laser diodes etc.
  - \* mounted, optically worked glass mirrors, door eyes etc.
- manufacture of photographic and cinematographic equipment:
  - \* cameras
  - \* image projectors, enlargers and reducers
  - \* cinematographic projectors, including those incorporating sound reproducing apparatus
  - \* photo flash apparatus
  - \* apparatus and equipment for photographic and cinematographic laboratories, apparatus for the

- This class excludes:
- manufacture of photochemical products, see 2429
  - manufacture of unworked glass optical elements, see 2610
  - manufacture of photocopy machines, see 3000
  - manufacture of optical fibre cables for coded data transmission, see 3130
  - manufacture of photographic flashbulbs, see 3150
  - manufacture of television cameras, see 3220
  - manufacture of video cameras, see 3230
  - manufacture of medical and surgical instruments containing optical elements (e.g. endoscopes), see 3311
  - manufacture of microscopes other than optical, see 3312
  - manufacture of measuring or checking appliances containing optical elements, see 3312
- 333 **Manufacture of watches and clocks**  
This class includes:
- manufacture of watches and clocks of all kinds, including instrument panel clocks; watch and clock cases, including cases of precious metals
  - manufacture of time-recording equipment and equipment for measuring, recording and otherwise displaying intervals of time with a watch or clock movement or with synchronous motor, e.g. parking meters, process timers
  - manufacture of time switches and other releases with a watch or clock movement or with synchronous motor
  - manufacture of components for clocks and watches:
    - \* movements of all kinds for watches and clocks
    - \* springs, jewels, dials, hands, plates, bridges and other parts
  - manufacture of metal watch straps, watch bands and watch bracelets, including those of precious metals
- This class excludes:
- manufacture of non-metallic watch bands, see 1912
- 34 **Manufacture of motor vehicles, trailers and semi-trailers**  
This class includes the manufacture of motor vehicles for transporting people or goods. The manufacture of various parts and accessories, as well as manufacture of trailers and semi-trailers, is included here.
- 341 **Manufacture of motor vehicles**  
This class includes:
- manufacture of passenger cars
  - manufacture of commercial vehicles:
    - \* vans, lorries, over-the-road tractors for semi-trailers etc.
  - manufacture of buses, trolley-buses and coaches
  - manufacture of motor vehicle engines
  - manufacture of chassis fitted with engines
  - manufacture of other motor vehicles:
    - \* snowmobiles, golf carts, amphibious vehicles
    - \* fire engines, street sweepers, travelling libraries, armoured cars etc.
    - \* concrete-mixer lorries
- This class excludes:
- manufacture of agricultural tractors, see 2921
  - manufacture of tractors used in construction or mining, see 2924
  - manufacture of electrical parts for motor vehicles, see 3190
  - manufacture of bodies for motor vehicles, see 3420
  - manufacture of parts and accessories for motor vehicles, see 3430
  - maintenance, repair and alteration of motor vehicles, see 5020
- 342 **Manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers**  
This class includes:
- manufacture of bodies, including cabs for motor vehicles
  - outfitting of all types of motor vehicles, trailers and semi-trailers
  - manufacture of trailers and semi-trailers:
    - \* for transport of goods: tankers, removal trailers etc.
    - \* for transport of passengers: caravan trailers etc.
  - manufacture of containers for carriage by one or more modes of transport
- This class excludes:
- manufacture of trailers and semi-trailers specially designed for use in agriculture, see 2921
  - manufacture of parts and accessories of bodies for motor vehicles, see 3430
  - manufacture of vehicles drawn by animals, see 3599

- 343      **Manufacture of parts and accessories for motor vehicles and their engines**  
This class includes:  
- manufacture of diverse parts and accessories for motor vehicles:  
\* brakes, gearboxes, axles, road wheels, suspension shock absorbers, radiators, silencers, exhaust pipes, catalysers, clutches, steering wheels, steering columns and steering boxes  
- manufacture of parts and accessories of bodies for motor vehicles:  
\* safety belts, airbags, doors, bumpers
- This class also includes:  
- manufacture of inlet and exhaust valves of internal combustion engines  
This class excludes:  
- manufacture of pumps for motor vehicles and engines, see 2912  
- manufacture of batteries for vehicles, see 3140  
- manufacture of electrical equipment for motor vehicles, see 3190  
- maintenance, repair and alteration of motor vehicles, see 5020
- 35        **Manufacture of other transport equipment**
- 351      **Building and repairing of ships and boats**
- 3511     **Building and repairing of ships**  
This class includes the building and repairing of ships, except vessels for sports or recreation, and construction and repair of floating structures.  
This class includes:  
- building of commercial vessels: passenger vessels, ferry-boats, cargo ships, tankers, tugs etc.  
- building of warships  
- building of fishing boats and fish-processing factory vessels
- This class also includes:  
- construction of hovercraft (except recreation-type hovercraft)  
- construction of drilling platforms, floating or submersible  
- construction of floating structures:  
\* floating docks, pontoons, coffer-dams, floating landing stages, buoys, floating tanks, barges, lighters, floating cranes, non-recreational inflatable rafts etc.  
- manufacture of sections for ships and floating structures  
This class excludes:  
- manufacture of parts of vessels, other than major hull assemblies:  
\* manufacture of sails, see 1721  
\* manufacture of ships' propellers, see 2899  
\* manufacture of iron or steel anchors, see 2899  
\* manufacture of marine engines, see 2911  
- manufacture of navigational instruments, see 3312  
- manufacture of amphibious motor vehicles, see 3410  
- manufacture of inflatable boats or rafts for recreation, see 3512  
- ship-breaking, see 3710
- 3512     **Building and repairing of pleasure and sporting boats**  
This class includes:  
- manufacture of inflatable boats and rafts  
- building of sailboats with or without auxiliary motor  
- building of motor boats  
- building of recreation-type hovercraft  
- building of other pleasure and sporting boats:  
\* canoes, kayaks, rowing boats, skiffs  
- maintenance, repair or alteration of pleasure boats  
This class excludes:  
- manufacture of parts of pleasure and sporting boats:  
\* manufacture of sails, see 1721  
\* manufacture of iron or steel anchors, see 2899  
\* manufacture of marine engines, see 2911  
- manufacture of sailboards, see 3693
- 352      **Manufacture of railway and tramway locomotives and rolling stock**  
This class includes:  
- manufacture of electric, diesel, steam and other rail locomotives  
- manufacture of self-propelled railway or tramway coaches, vans and trucks, maintenance or service

vehicles

- manufacture of railway or tramway rolling stock, not self-propelled:

\* passenger coaches, goods vans, tank wagons, self-discharging vans and wagons, workshop vans, crane vans, tenders etc.

- manufacture of specialized parts of railway or tramway locomotives or of rolling stock:

\* bogies, axles and wheels, brakes and parts of brakes; hooks and coupling devices, buffers and buffer parts; shock absorbers; wagon and locomotive frames; bodies; corridor connections etc.

This class also includes:

- manufacture of mechanical and electromechanical signalling, safety and traffic control equipment for railways, tramways, roads, inland waterways, parking facilities or airfields

This class excludes:

- manufacture of unassembled rails, see 2710

- manufacture of engines and turbines, see 2911

- manufacture of electric motors, see 3110

- manufacture of electrical signalling, safety or traffic-control equipment, see 3190

### 353 Manufacture of aircraft and spacecraft

This class includes:

- manufacture of aeroplanes for the transport of goods or passengers, for use by the defence forces, for sport or other purposes

- manufacture of helicopters

- manufacture of gliders, hang-gliders

- manufacture of dirigibles and balloons

- manufacture of spacecraft and spacecraft launch vehicles, satellites, planetary probes, orbital stations, shuttles

- manufacture of parts and accessories of the aircraft of this class:

\* major assemblies such as fuselages, wings, doors, control surfaces, landing gear, fuel tanks, nacelles etc.

\* airscrews, helicopter rotors and propelled rotor blades

\* motors and engines of a kind typically found on aircraft

\* parts of turbojets and turbopropellers for aircraft

- manufacture of aircraft launching gear, deck arresters etc.

- manufacture of ground flying trainers

This class also includes:

- maintenance, repair and alteration of aircraft or aircraft engines

This class excludes:

- manufacture of parachutes, see 1721

- manufacture of military ballistic missiles, see 2927

- manufacture of ignition parts and other electrical parts for internal combustion engines, see 3190

- manufacture of aircraft instrumentation and aeronautical instruments, see 3312

- manufacture of air navigation systems, see 3312

### 359 Manufacture of transport equipment n.e.c.

#### 3591 Manufacture of motorcycles

This class includes:

- manufacture of motorcycles, mopeds and cycles fitted with an auxiliary engine

- manufacture of engines for motorcycles

- manufacture of sidecars

- manufacture of parts and accessories for motorcycles

This class excludes:

- manufacture of bicycles, see 3592

- manufacture of invalid carriages, see 3592

#### 3592 Manufacture of bicycles and invalid carriages

This class includes:

- manufacture of non-motorized bicycles and other cycles, including delivery tricycles, tandems, children's bicycles

- manufacture of parts and accessories of bicycles

- manufacture of invalid carriages with or without motor

- manufacture of parts and accessories of invalid carriages

This class excludes:

- manufacture of bicycles with auxiliary motor, see 3591

- manufacture of children's cycles other than bicycles, see 3694

- 3599 **Manufacture of other transport equipment n.e.c.**  
 This class includes:  
 - manufacture of wheelbarrows, luggage trucks, handcarts, sledges etc.  
 - manufacture of vehicles drawn by animals
- 37 **Recycling**  
 This division includes:  
 - processing of waste and scrap and other articles, whether used or not, into secondary raw material. A transformation process is required, either mechanical or chemical. It is typical that, in terms of commodities, input consists of waste and scrap, the input being sorted or unsorted but normally unfit for further direct use in an industrial process, whereas the output is made fit for direct use in an industrial manufacturing process. The resulting secondary raw material is to be considered an intermediate good, with a value, but is not a final new product.
- This division excludes:  
 - manufacture of new final products from (whether or not self-manufactured) secondary raw material, see divisions 14 to 36  
 - wholesale of waste and scrap, including collecting, sorting, separating, stripping of used goods such as cars in order to obtain reusable parts, (re-)packing, storage and delivery, but without a real transformation process, see divisions 50, 51 and 52  
 - wholesale or retail sale of second-hand goods, see divisions 50 and 51, 5240  
 - treatment of waste, not for further use in an industrial manufacturing process, but with the aim of disposal, see 9000
- 371 **Recycling of metal waste and scrap**  
 This class includes:  
 - processing of metal waste and scrap and of metal articles into secondary raw material. Examples of mechanical or chemical transformation processes are:  
 \* mechanical crushing of metal waste such as used cars, washing machines, bikes etc. with subsequent sorting and separation  
 \* mechanical reduction of large iron pieces such as railway wagons  
 \* shredding of metal waste, end-of-life vehicles etc.  
 \* other methods of mechanical treatment as cutting, pressing to reduce the volume  
 - ship-breaking  
 This class excludes:  
 - manufacture of new final metals or new final metal products from (whether or not self-manufactured) secondary metal raw materials, see divisions 27 and 28  
 - car dismantling sites, demolition of machinery, computers in order to obtain reusable parts etc., including trade in second-hand spare parts, see divisions 50, 51 and 52  
 - disposal of used goods such as refrigerators to eliminate harmful waste, see 9000
- 372 **Recycling of non-metal waste and scrap**  
 This class includes:  
 - processing of non-metal waste and scrap and of non-metal articles into secondary raw material. Examples of transformation processes are:  
 \* reclaiming of rubber such as used tires to produce secondary raw material  
 \* sorting and pelleting of plastics to produce secondary raw material for tubes, flower pots, pallets and the like  
 \* processing (cleaning, melting, grinding) of plastic or rubber waste to granulates  
 \* reclaiming of chemicals from chemical waste  
 \* crushing, cleaning and sorting of glass  
 \* crushing, cleaning and sorting of other waste such as demolition waste to obtain secondary raw material  
 \* mechanical crushing and grinding of waste from the construction and demolition of buildings (including wood), asphalt  
 \* processing of used cooking oils and fats into secondary raw materials for pet food or feed for farm animals  
 This class excludes:  
 - production of new final products from (whether or not self-manufactured) secondary raw materials such as spinning of yarn from garnetted stock or making pulp from waste paper or retreading tyres. Such activities should be classified in the appropriate class of manufacturing, see divisions 14 to 36  
 - treatment of food residual substances to manufacture food products, see division 15  
 - treatment of slaughter waste to produce animal feeds, see 1533  
 - reprocessing of nuclear fuels and treatment of nuclear waste, see 2330  
 - composting of organic waste, see 2412  
 - wholesale in non-metal waste and scrap, including collecting, sorting, packing, dealing etc., but without a real transformation process, see 5149

- wholesale or retail sale trade in second-hand goods, see division 50 and 51, 5240
- incineration, dumping, burying etc. of waste, see 9000
- treatment and disposal of transition radioactive waste from hospitals etc., see 9000
- treatment and disposal of toxic, contaminated waste, see 9000
- disposal of food, beverages and tobacco waste, see 9000

## **E Electricity, gas and water supply**

This section covers the activity of providing electric power, natural gas, steam supply, and water supply through a permanent infrastructure (network) of lines, mains and pipes. The dimension of the network is not decisive; also included are electricity, gas, steam and water supply and the like in industrial parks or blocks of flats.

Production, infrastructure management, and supplying end-users may be handled by the same or a different unit. Units engaged in the supply of electricity and/or gas and/or steam and hot water and/or water have to be classified according to their principal activity.

40 Electricity, gas, steam and hot water supply

401 Production, transmission and distribution of electricity

This class includes:

- operation of generation facilities that produce electric energy; including thermal, nuclear, hydroelectric, gas turbine, diesel and renewable
- operation of transmission systems that convey the electricity from the generation facility to the distribution system;
- operation of distribution systems (i.e., consisting of lines, poles, meters, and wiring) that convey electric power received from the generation facility or the transmission system to the final consumer
- sale of electricity to the user
- activities of electric power brokers or agents that arrange the sale of electricity via power distribution systems operated by others.

402 Manufacture of gas; distribution of gaseous fuels through mains

This class includes:

- production of gas for the purpose of gas supply by carbonation of coal, from by-products of agriculture or from waste
- manufacture of gaseous fuels with a specified calorific value, by purification, blending and other processes from gases of various types including natural gas
- transportation, distribution and supply of gaseous fuels of all kinds through a system of mains
- sale of gas to the user through mains
- activities of gas brokers or agents that arrange the sale of gas over gas distribution systems operated by others

This class excludes:

- operation of coke ovens, see 2310
- manufacture of refined petroleum products, see 2320
- manufacture of industrial gases, see 2411
- bulk sale of gaseous fuels, or its sale in canisters (see 5110, 5141, 5239 and group 525)
- transportation of gases by pipelines (other than mains), see 6030

403 Steam and hot water supply

This class includes:

- production, collection and distribution of steam and hot water for heating, power and other purposes

41 Collection, purification and distribution of water

This class also includes:

- purification of water for water supply purposes
- desalting of sea water to produce water as the principal product of interest

This class excludes:

- irrigation system operation for agricultural purposes, see 0140
- (long-distance) transport of water via pipelines, see 6030
- treatment of waste water in order to prevent pollution, see 9000

## **F Construction**

45 Construction

This division includes general construction and special trade construction for buildings and civil engineering, building installation and building completion. It includes new work, repair, additions and alterations, the erection of prefabricated buildings or structures on the site and also construction of a temporary nature.

General construction is the construction of entire dwellings, office buildings, stores and other public

and utility buildings, farm buildings etc., or the construction of heavy constructions such as motorways, streets, bridges, tunnels, railways, airfields, harbours and other water projects, irrigation systems, sewerage systems, industrial facilities, pipelines and electric lines, sports facilities etc. This work can be carried out on own account or on a fee or contract basis. Portions of the work and sometimes even the whole practical work can be subcontracted out to trade contractors.

Special trade construction includes the construction of parts of buildings and civil engineering works or preparation therefor. It is usually specialized in one aspect common to different structures, requiring specialized skills or equipment. Activities such as pile-driving, foundation work, water well drilling, carcass work, concrete work, bricklaying, stone setting, scaffolding, roof covering etc., are covered. The erection of steel structures is included provided that the parts are not produced by the same unit. Special trade construction is carried out mostly under subcontract, but in repair construction especially it is done directly for the owner of the property.

Building installation activities include the installation of all kind of utilities that make the construction function as such. These activities are usually performed at the site of the construction, although parts of the job may be carried out in a special shop. Included are activities such as plumbing, installation of heating and air-conditioning systems, antennas, alarm systems and other electrical work, sprinkler systems, elevators and escalators etc. Also included are insulation work (water, heat, sound), sheet metal work, commercial refrigerating work, the installation of illumination and signalling systems for roads, railways, airports, harbours etc. Also included is repair of the same type as the above-mentioned installation activities.

Building completion encompasses activities that contribute to the completion or finishing of a construction such as glazing, plastering, painting and decorating, floor and wall tiling or covering with other materials like parquet, carpets, wallpaper etc., floor sanding, finish carpentry, acoustical work, cleaning of the exterior etc. Also included is repair of the same type as the above-mentioned activities.

This division excludes:

- manufacture of building materials, see sections C and D
- erecting or installing industrial equipment, see section D (e.g. installation of industrial furnaces, turbines etc.)
- erection of complete prefabricated buildings or structures from self-manufactured parts, which is classified in the relevant category in manufacturing, depending on the material chiefly used, except if the chief material is concrete, in which case it remains classified here
- erection of metal structures from self-manufactured parts, see 2811
- installation of self-manufactured carpentry or joinery, which is classified in the relevant category in manufacturing, depending on the material used (e.g. wood, see 2022)
- architectural and engineering activities, 7421
- project management for constructions, see 7421
- landscape planning and design, lawn and garden installation and maintenance and tree surgeons' activities, see 0140

451

#### Site preparation

This class includes:

- demolition or wrecking of buildings and other structures
- clearing of building sites
- earth moving: excavation, landfill, levelling and grading of construction sites, trench digging, rock removal, blasting etc.
- stripping work of contaminated topsoil as part of construction activities
- site preparation for mining:
  - \* overburden removal and other development and preparation of mineral properties and sites, except oil and gas sites
- test drilling, test boring and core sampling for construction, geophysical, geologic or similar purposes

This class also includes:

- building site drainage
- drainage of agricultural or forestry land
- clearing of mines and the like (including detonation) from construction sites

This class excludes:

- drilling of production oil or gas wells, see 1110 (when on own account) or 1120 (when on a fee or contract basis)
- water well drilling, see 4520
- shaft sinking, see 4520
- oil and gas field exploring, geophysical, geologic and seismic surveying, see 7421
- decontamination of soil, see 9000

452

#### Building of complete constructions or parts thereof; civil engineering

This class includes:

- construction of all types of buildings
- construction of civil engineering constructions:
  - \* bridges, including those for elevated highways, viaducts, tunnels and subways
  - \* long-distance pipelines, communication and power lines
  - \* urban pipelines, urban communication and power lines; ancillary urban works
- construction of:
  - \* waterways, harbour and river works, pleasure ports (marinas), locks etc.
  - \* dams and dykes
  - \* sewer systems, including repair
- construction of motorways, streets, roads, other vehicular and pedestrian ways
- construction of railways
- construction of airfield runways
- construction work, other than on buildings, for stadiums, swimming pools, gymnasiums, tennis courts, golf courses and other sports installations
- assembly and erection of prefabricated constructions on the site
- erection of roofs
- roof covering
- surface work on elevated motorways, bridges and tunnels
- installation of crash barriers, traffic signs and the like
- dredging
- subsurface work
- construction activities specializing in one aspect common to different kind of structures, requiring specialized skill or equipment:
  - \* construction of foundations, including pile driving
  - \* water well drilling and construction, shaft sinking
  - \* erection of non-self-manufactured steel elements
  - \* steel bending
  - \* bricklaying and stone setting
  - \* scaffolds and work platform erecting and dismantling, including renting of scaffolds and work platforms
  - \* erection of chimneys and industrial ovens
  - \* work with specialist access requirements necessitating climbing skills and the use of related equipment, e.g. working at height on tall structures

This class also includes:

- development on own account involving construction

This class excludes:

- service activities incidental to oil and gas extraction, see 1120
- erection of complete prefabricated constructions from self-manufactured parts not of concrete, see divisions 20, 26 and 28
- preliminary earth moving, see 4510
- building installation, see 4530
- building completion, see 4540
- architectural and engineering activities, see 7421
- project management for construction, see 7421
- renting of scaffolds without erection and dismantling, see 7122

#### 453 Building installation

This class includes:

- installation in buildings or other construction projects of:
  - \* electrical wiring and fittings
  - \* telecommunications wiring
  - \* electrical heating systems, including electric solar energy collector residential antennas and aerials
  - \* fire alarms
  - \* burglar alarm systems
  - \* lifts and escalators
  - \* lightning conductors etc.
- installation in buildings or other construction projects of:
  - \* thermal, sound or vibration insulation
  - \* plumbing and sanitary equipment
  - \* gas fittings
  - \* heating, ventilation, refrigeration or air-conditioning equipment and ducts
  - \* non-electric solar energy collectors
  - \* sprinkler systems
- installation of illumination and signalling systems for roads, railways, airports and harbours
- installation in buildings or other construction projects of fittings and fixtures n.e.c.
- general technical repair and maintenance of building installations

This class excludes:  
- installation of telecommunication systems, see 3220

#### 454 Building completion

This class includes:

- application in buildings or other construction projects of interior and exterior plaster or stucco, including related lathing materials
- installation of not self-manufactured doors, windows, door and window frames, fitted kitchens, staircases, shop fittings and the like, of wood or other materials
- interior completion such as ceilings, wooden wall coverings, movable partitions etc.
- laying, tiling, hanging or fitting in buildings or other construction projects of:
  - \* ceramic, concrete or cut stone wall or floor tiles, ceramic stove fitting
  - \* parquet and other wood floor coverings
  - \* carpets and linoleum floor coverings, including of rubber or plastic
  - \* terrazzo, marble, granite or slate floor or wall coverings
  - \* wallpaper
- interior and exterior painting of buildings
- painting of civil engineering structures
- installation of glass, mirrors etc.
- installation of private swimming pools
- steam cleaning, sandblasting and similar activities for building exteriors
- cleaning of new buildings after construction
- other building completion and finishing work n.e.c.

This class excludes:

- installation of self-manufactured carpentry or joinery, which is classified in the relevant category in manufacturing, depending on the material used (e.g. if made of wood, see 2022)
- interior cleaning of buildings and other structures, see 7493
- activities of interior decoration designers, see 7499

#### 455 Renting of construction or demolition equipment with operator

This class includes:

- renting of cranes, with operator
- renting of bulldozers, mortar spreaders, concrete surfacing machinery etc. with operator

This class excludes:

- renting of construction or demolition machinery and equipment without operators, see 7122

### I **Transport, storage and communications**

This section includes:

- activities related to providing passenger or freight transport, whether scheduled or not, by rail, pipeline, road, water or air
- supporting activities such as terminal and parking facilities, cargo handling, storage etc.
- postal activities and telecommunication
- renting of transport equipment with driver or operator

This section excludes:

- major repair or alteration of transport equipment, except motor vehicles, see division 35
- construction, maintenance and repair of roads, railroads, harbours, airfields, see 4520
- maintenance and repair of motor vehicles, see 5020
- renting of transport equipment without driver or operator, see group 711

#### 60 Land transport; transport via pipelines

This division includes the transport of passengers and freight via road and rail, as well as freight transport via pipelines.

#### 601 Transport via railways

This class includes:

- passenger transport by inter-urban railways
- freight transport by inter-urban, suburban and urban railways

This class also includes:

- related activities such as switching and shunting
- operation of sleeping cars or dining cars as an integrated operation of railway companies

This class excludes:

- operation of sleeping cars or dining cars when operated by separate units, see 5510, 5520
- passenger transport by urban and suburban transit systems, see 6021
- passenger and freight terminal activities, cargo handling, storage and other auxiliary activities, see

- division 63  
- maintenance and minor repair of rolling stock, see 6303
- 602 Other land transport
- 6021 Other scheduled passenger land transport  
This class includes:  
- activities providing urban, suburban or inter-urban transport of passengers on scheduled routes normally following a fixed time schedule, entailing the picking up and setting down of passengers at normally fixed stops. They may be carried out with motor bus, tramway, streetcar, trolley bus, underground and elevated railways etc.
- This class also includes:  
- operation of school buses, town-to-airport or town-to-station lines, funicular railways, aerial cableways  
This class excludes:  
- passenger transport by inter-urban railways, see 6010
- 6022 Other non-scheduled passenger land transport  
This class includes:  
- other non-scheduled passenger road transport:  
\* charters, excursions and other occasional coach services  
\* taxi operation
- This class also includes:  
- other rental of private cars with operator  
- passenger transport by man- or animal-drawn vehicles  
This class excludes:  
- ambulance transport, see 8519
- 6023 Freight transport by road  
This class includes:  
- all freight transport operations by road:  
\* logging haulage  
\* stock haulage  
\* refrigerated haulage  
\* heavy haulage  
\* bulk haulage, including haulage in tanker trucks including milk collection at farms  
\* haulage of automobiles  
\* transport of waste and waste materials, without collection or disposal
- This class also includes:  
- furniture removal  
- renting of trucks with driver  
- freight transport by man or animal-drawn vehicles  
This class excludes:  
- log hauling within the forest, as part of logging operations, see 0200  
- operation of terminal facilities for handling freight, see 6303  
- crating and packing services for transport, see 6309  
- post and courier activities, see 641  
- waste transport as integrated part of waste collection activities carried out by specialized enterprises, see 9000
- 603 Transport via pipelines  
This class includes:  
- transport of gases, liquids, water, slurry and other commodities via pipelines
- This class also includes:  
- maintenance of pipelines  
- operation of pump stations  
This class excludes:  
- distribution of natural or manufactured gas, water or steam, see 4020, 4030, 4100
- 61 Water transport  
This division includes the transport of passengers or freight over water, whether scheduled or not. Also included are the operation of towing or pushing boats, excursion, cruise or sightseeing boats, ferries, water taxis etc.

This division excludes restaurant and bar activities on board ships (see class 5520), except when delivered as an integral part of transportation.

**611 Sea and coastal water transport**

This class includes:

- transport of passengers or freight over seas and coastal waters, whether scheduled or not:
- \* operation of excursion, cruise or sightseeing boats
- \* operation of ferries, water taxis etc.
- \* transport by towing or pushing of barges, oil rigs etc.
- rental of ships and boats with crew for sea and coastal water transport

This class also includes:

- transport of passengers or freight via great lakes, requiring similar types of vessels
- rental of pleasure boats with crew for sea and coastal water transport

This class excludes:

- restaurant and bar activities on board ships, except when integral part of transportation, see 5520
- cargo handling, storage of freight, harbour operation and other auxiliary activities such as docking, pilotage, lighterage, vessel salvage, see division 63
- operation of gambling cruises, see 9249

**612 Inland water transport**

This class includes:

- transport of passenger or freight via rivers, canals, lakes and other inland waterways, including inside harbours and ports

This class also includes:

- rental of pleasure boats with crew for inland water transport

**62 Air transport**

This division includes:

- transport of passengers or freight by air or via space

This division excludes:

- crop spraying, see 0140
- overhaul of aircraft or aircraft engines, see 3530
- aerial advertising, see 7430
- aerial photography, see 7494

**621 Scheduled air transport**

This class includes:

- transport of passengers or freight by air over regular routes and on regular schedules

This class excludes:

- regular charter flights, see 6220

**622 Non-scheduled air transport**

This class includes:

- non-scheduled transport of passengers or freight by air
- scenic and sightseeing flights
- launching of satellites and space vehicles
- space transport of physical goods and passengers

This class also includes:

- regular charter flights
- renting of air-transport equipment with operator

**63 Supporting and auxiliary transport activities; activities of travel agencies**

This division includes activities related to handling freight immediately before or after transport or between transport segments. The operation and maintenance of all transport facilities are included. This division also includes activities assisting passengers, such as those of travel agencies.

**630 Supporting and auxiliary transport activities; activities of travel agencies**

**6301 Cargo handling**

This class includes:

- loading and unloading of goods or passengers' luggage irrespective of the mode of transport used for transportation

- stevedoring
  - This class excludes:
    - operation of terminal facilities, see 6303
- 6302 Storage and warehousing
- This class includes:
- operation of storage and warehouse facilities for all kind of goods:
  - \* operation of grain silos, general merchandise warehouses, refrigerated warehouses, storage tanks etc.
- This class also includes:
- This class excludes:
- parking facilities for motor vehicles, see 6303
- 6303 Other supporting transport activities
- This class includes:
- activities related to land transport of passengers, animals or freight:
    - \* operation of terminal facilities such as railway stations, bus stations, stations for the handling of goods
    - \* operation of railroad infrastructure
    - \* operation of roads, bridges, tunnels, car parks or garages, bicycle parkings
  - activities related to water transport of passengers, animals or freight:
    - \* operation of terminal facilities such as harbours and piers
    - \* operation of waterway locks etc.
    - \* navigation, pilotage and berthing activities
    - \* lighterage, salvage activities
    - \* lighthouse activities
  - activities related to air transport of passengers, animals or freight:
    - \* operation of terminal facilities such as airway terminals etc.
    - \* airport and air-traffic-control activities
    - \* ground service activities on airfields etc.
- This class also includes:
- firefighting and fire-prevention services at airports
  - maintenance and minor repair of rolling stock
- This class excludes:
- cargo handling, see 6301
  - operation of flying schools, see 8090
  - operation of docking facilities related to pleasure boats (marinas), see 9249
- 6304 Activities of travel agencies and tour operators; tourist assistance activities n.e.c.
- This class includes:
- travel agency activities:
    - \* furnishing of travel information, advice and planning
    - \* arranging of made-to-measure tours, accommodation and transportation for travellers and tourists
    - \* sale of packaged tours etc.
    - \* furnishing of tickets
  - activities of local tourist information offices and accommodation offices
  - activities of tourist guides
- 6309 Activities of other transport agencies
- This class includes:
- forwarding of freight
  - arranging or organizing of transport operations by road, sea or air
  - organization of group and individual consignments (including pickup and delivery of goods and grouping of consignments)
  - issue and procurement of transport documents and waybills
  - bill auditing and freight rate information
  - activities of customs agents
  - activities of sea-freight forwarders and air-cargo agents
  - brokerage for ship and aircraft space
  - goods-handling operations, e.g. temporary crating for the sole purpose of protecting the goods during transit, uncrating, sampling, weighing of goods
- This class excludes:
- courier activities, see 6412
  - activities related to the arrangement of freight insurance, see 6720

- 64 Post and telecommunications
- 641 Post and courier activities
- 6411 National post activities  
 This class includes:  
 - pickup, transport and delivery (domestic or international) of mail and parcels  
 - collection of mail and parcels from public letter-boxes or from post offices  
 - distribution and delivery of mail and parcels  
 - mailbox rental, poste restante etc.  
 - mail sorting  
 - sale of postage stamps  
 This class excludes:  
 - postal giro and postal savings activities and other financial activities carried out in combination with postal activities, see 6519
- 6412 Courier activities other than national post activities  
 This class includes:  
 - pickup, transport and delivery of letters and mail-type parcels and packages by firms other than national post. One or more modes of transport may be involved and the activity may be carried out with either self-owned (private) transport or via public transport.  
  
 This class also includes:  
 - home delivery services  
 This class excludes:  
 - similar activities carried out by the national postal authority, see 6411
- 642 Telecommunications  
 This class includes:  
 - transmission of sound, images, data or other information via cables, broadcasting, relay or satellite:  
 \* telephone, telegraph and telex communication  
 \* transmission (transport) of radio and television programmes  
 - maintenance of the network  
 - Internet access provision  
 - public pay-telephone services  
 This class excludes:  
 - dissemination of information through web sites (Internet publishing), see 7240  
 - production of radio and television programmes, whether or not combined with broadcasting, see 9213
- J Financial intermediation**  
 This sector comprises units primarily engaged in financial transactions, i.e. transactions involving the creation, liquidation or change of ownership of financial assets. Also included are insurance and pension funding (division 66) and activities facilitating financial transactions (division 67). Units charged with monetary control, the monetary authorities, are included here.  
  
 This sector does not include compulsory social security (see 7530).
- 65 Financial intermediation, except insurance and pension funding  
 This division includes:  
 - the activity of obtaining and redistributing funds other than for the purpose of insurance or pension funding or compulsory social security  
 Note: National institutional arrangements are likely to play a significant role in determining the classification of units within this division.  
 Credit-card activities are classified according to type of operator.
- 66 Insurance and pension funding, except compulsory social security  
 This division includes units engaged in setting up and managing insurance funds for all kinds of insurance types (life and non-life) and units engaged in the provision of retirement incomes. In either case, activities involving the collection and investment of funds are included. The activities include long- and short-term risk spreading with or without a savings element.  
 This division differentiates between pension funding and life and non-life insurance as the primary breakdown.  
  
 This division excludes:  
 - compulsory social security, see 7530

- 67      **Activities auxiliary to financial intermediation**  
 This division includes the provision of services involved in or closely related to financial intermediation, but not themselves involving financial intermediation. The primary breakdown of this division is according to the type of financial transaction or funding served.
- K      Real estate, renting and business activities**  
 This section includes activities that focus mainly on the business sector with the obvious exception of real estate activities. However, more or less all activities covered in this section can also be provided to private households, for example, renting of personal and household goods, database activities, legal activities, investigation and security services, interior decoration and photographic activities.
- 70      **Real estate activities**
- 701     **Real estate activities with own or leased property**  
 This class includes:  
 - buying, selling, renting and operating of self-owned or leased real estate:  
 \* apartment buildings and dwellings  
 \* non-residential buildings, including exhibition halls  
 \* land
- This class also includes:  
 - subdividing real estate into lots  
 - development and sale of land  
 - operation of residential mobile home sites
- This class excludes:  
 - development on own account involving construction, see 4520  
 - operation of hotels, rooming houses, camps, trailer camps and other non-residential or short-stay lodging places, see 5510
- 702     **Real estate activities on a fee or contract basis**  
 This class includes:  
 - activities of real estate agents and brokers  
 - intermediation in buying, selling and renting of real estate on a fee or contract basis  
 - managing of real estate on a fee or contract basis  
 - appraisal services for real estate  
 - real estate escrow agents
- 71      **Renting of machinery and equipment without operator and of personal and household goods**  
 This division includes renting and operational leasing. The length of the rental may be short- or long-term. The machinery and equipment may be provided with or without maintenance.
- This division excludes:  
 - financial leasing, which is normally a special form of credit granting, see 6591
- 711     **Renting of transport equipment**
- 7111    **Renting of land transport equipment**  
 This class includes:  
 - renting and operational leasing of land-transport equipment without drivers:  
 \* automobiles  
 \* trucks, haulage tractors, trailers and semi-trailers  
 \* motorcycles, caravans and campers etc.  
 \* railroad vehicles
- This class also includes:  
 - renting of containers  
 - renting of pallets
- This class excludes:  
 - renting or leasing of vehicles or trucks with driver, see 6022, 6023  
 - financial leasing, see 6591  
 - renting of accommodation or office containers, see 7129  
 - renting of bicycles, see 7130
- 7112    **Renting of water transport equipment**  
 This class includes:

- renting and operational leasing of water-transport equipment without operator:
  - \* commercial boats and ships
 This class excludes:
  - renting of water-transport equipment with operator, see 6110, 6120
  - financial leasing, see 6591
  - renting of pleasure boats, see 7130
  
- 7113 Renting of air transport equipment
 

This class includes:

  - renting and operational leasing of air transport equipment without operator:
    - \* airplanes
    - \* hot-air balloons

This class excludes:

  - renting of air-transport equipment with operator, see 6220
  - financial leasing, see 6591
  
- 712 Renting of other machinery and equipment
  
- 7121 Renting of agricultural machinery and equipment
 

This class includes:

  - renting and operational leasing of agricultural and forestry machinery and equipment without operator:

This class excludes:

  - renting of this machinery or equipment with operator, see 0140
  - financial leasing, see 6591
  
- 7122 Renting of construction and civil engineering machinery and equipment
 

This class includes:

  - renting and operational leasing of construction and civil-engineering machinery and equipment without operator:
    - \* crane lorries
    - \* scaffolds and work platforms, without erection and dismantling

This class excludes:

  - renting of this machinery or equipment with operator, see 4550
  - financial leasing, see 6591
  
- 7123 Renting of office machinery and equipment (including computers)
 

This class includes:

  - renting and operational leasing of office machinery and equipment without operator:
    - \* computers and computer peripheral equipment
    - \* duplicating machines, typewriters and word-processing machines
    - \* accounting machinery and equipment: cash registers, electronic calculators etc.

This class excludes:

  - financial leasing, see 6591
  
- 7129 Renting of other machinery and equipment n.e.c.
 

This class includes:

  - renting and operational leasing, without operator, of other machinery and equipment that are generally used as capital goods by industries:
    - \* engines and turbines
    - \* machine tools
    - \* mining and oilfield equipment
    - \* professional radio, television and communication equipment
    - \* motion picture production equipment
    - \* measuring and controlling equipment
    - \* other scientific, commercial and industrial machinery

This class also includes:

  - renting of accommodation or office containers

This class excludes:

  - financial leasing, see 6591
  - renting of agricultural machinery and equipment, see 7121
  - renting of construction and civil-engineering machinery and equipment, see 7122
  - renting of office machinery and equipment, including computers, see 7123
  
- 713 Renting of personal and household goods n.e.c.

This class includes:

- the renting of all kinds of household or personal goods, to households or industries:
- \* textiles, wearing apparel and footwear
- \* furniture, pottery and glass, kitchen and tableware, electrical appliances and house wares
- \* pleasure boats
- \* bicycles
- \* sports equipment
- \* jewellery, musical instruments, scenery and costumes
- \* books, journals and magazines
- \* videotapes, records, CDs, DVDs etc.
- \* do-it-yourself machinery and equipment, hand tools
- \* flowers and plants

This class excludes:

- renting of passenger cars, small vans, motorcycles, caravans and trailers without operator, see 7111
- renting of leisure and pleasure equipment as an integral part of recreational facilities, see 9249
- provision of linen, work uniforms and related items by laundries, see 9301

## 72 Computer and related activities

This division includes activities related to the design, set-up, operation and maintenance of computer systems and networks, as well as custom software development and software publishing. Included are data-processing activities of various kinds and the storage and online distribution of electronic content. Also included are the maintenance and repair of other office, accounting and computing machinery.

### 721 Hardware consultancy

This class includes:

- consultancy on type and configuration of hardware with or without associated software applications by analysing the users' needs and problems and presenting the best solution

This class excludes:

- hardware consultancy carried out by computer producing or selling units, see 3000, 5151, 5239

### 722 Software publishing, consultancy and supply

#### 7221 Software publishing

This class includes:

- production, supply and documentation of ready-made (non-customized) software:
- \* operating systems
- \* business and other applications
- \* computer games for all platforms

This class excludes:

- reproduction of software, see 2230
- retail sale of non-customized software, see 5239
- production of customized software, see 7229

#### 7229 Other software consultancy and supply

This class includes:

- analysis, design and programming of custom software, including:
- \* analysis of the user's needs and problems, consultancy on the best solution
- \* production of custom software to realize this solution
- development, production, supply and documentation of made-to-order software based on orders from specific users
- writing of software of any kind following directives of the user
- software maintenance
- web page design

This class excludes:

- reproduction of software, see 2230
- software consultancy in conjunction with hardware consultancy, see 7210
- publishing of software, see 7221

### 723 Data processing

This class includes:

- processing of data employing either the customer's or a proprietary program:
- \* complete processing of data supplied by the customer
- \* data entry services
- \* scanning of documents
- management and operation on a continuing basis of data-processing facilities belonging to others
- timeshare computer services

- web-hosting
  - This class excludes:
    - renting and leasing of computers and computer peripheral equipment, see 7123
- 724 Database activities and online distribution of electronic content
- The online distribution in this class refers to units exclusively engaged in the online distribution of content, but not to units where online publishing is done in addition to traditional forms of publishing. In this respect, this is an exception to the general rule on classifying units according to the share of value added.
- This class includes:
- assembly of compilations of data from one or more sources
  - provision of online access to proprietary databases
  - online database publishing
  - online directory and mailing list publishing
  - other online publishing, including e-books
  - web search portals
  - Internet search sites, Internet game sites, Internet entertainment sites
- This class excludes:
- online publishing combined with traditional publishing, see 221
  - retail sale activities conducted over the Internet, see 5251
  - publishing of database software, see 7221
  - creation of database software or systems, see 7229
  - operation of Internet gambling web sites, see 9249
- 725 Maintenance and repair of office, accounting and computing machinery
- This class includes:
- maintenance and repair of:
    - \* computer and computer peripheral equipment
    - \* typewriters, manual or electric
    - \* photocopy and thermocopy machines
    - \* electronic calculating machines, hand-held or desktop
    - \* cash registers
- 729 Other computer-related activities
- This class includes:
- computer disaster recovery
  - software installation services
  - other computer-related services n.e.c.
- 73 Research and development
- This division includes three types of research and development (R&D):
- basic research:
    - \* experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without particular application or use in view
  - applied research:
    - \* original investigation undertaken in order to acquire new knowledge, directed primarily towards a specific practical aim or objective
  - experimental development:
    - \* systematic work, drawing on existing knowledge gained from research and/or practical experience, directed to producing new materials, products and devices, to installing new processes, systems and services, and to improving substantially those already produced or installed
- This division excludes:
- governmental administration of R&D and of associated funds in the various natural or social sciences, see division 75
  - administration and support of defence-related applied research and experimental development, see 7522
  - education combined with R&D, see division 80
  - raising and management of R&D funds for medical or other socially related R&D by charities, see
- 731 Research and experimental development on natural sciences and engineering (NSE)
- This class includes:
- systematic studies and creative work in the three types of research and development defined above, in natural sciences (mathematics, physics, astronomy, chemistry, life sciences, medical sciences, earth sciences, agriculture, engineering and technology etc.). They are intended to increase the stock of knowledge and to devise new applications.

- This class also includes:  
 - multidisciplinary research and development
- 732 Research and experimental development on social sciences and humanities (SSH)  
 This class includes:  
 - systematic studies and creative efforts in the three types of research and development defined above, in social sciences and humanities (economics, psychology, sociology, archaeology, legal sciences, linguistics and languages, arts etc.). They are intended to increase the stock of knowledge and to devise new applications.  
 This class excludes:  
 - market research, see 7413
- 74 Other business activities  
 This division includes all business activities, except computer- and research-related activities, which are covered in divisions 72 and 73 of this sector. Some of the activities covered here are often carried out by ancillary units of larger businesses, while others are more likely to be carried out by independent units. Outsourcing is a major factor in changing the way these activities are accounted for. The majority of these activities are carried out for commercial clients, except for legal activities (7411), parts of labour recruitment and provision of personnel (7491) and photographic activities
- 741 Legal, accounting, bookkeeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy
- 7411 Legal activities  
 This class includes:  
 - legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar:  
 \* advice and representation in civil cases  
 \* advice and representation in criminal actions  
 \* advice and representation in connection with labour disputes  
 - general counselling and advising, preparation of legal documents:  
 \* articles of incorporation, partnership agreements or similar documents in connection with company formation  
 \* patents and copyrights  
 \* preparation of deeds, wills, trusts etc.  
 - other activities of notaries public, civil law notaries, bailiffs, arbitrators, examiners and referees  
 This class excludes:  
 - law court activities, see 7523
- 7412 Accounting, bookkeeping and auditing activities; tax consultancy  
 This class includes:  
 - recording of commercial transactions from businesses or others  
 - preparation of financial accounts, examination of such accounts and certification of their accuracy  
 - preparation of personal and business income tax returns  
 - advisory activities and representation (other than legal representation) on behalf of clients before tax authorities  
 This class excludes:  
 - data-processing and tabulation activities, see 7230  
 - management consultancy such as design of accounting systems, cost accounting programmes, budgetary control procedures, see 7414  
 - bill collection, see 7499
- 7413 Market research and public opinion polling  
 This class includes:  
 - investigation into market potential, acceptance and familiarity of products and buying habits of consumers for the purpose of sales promotion and development of new products, including statistical analyses of the results  
 - investigation into collective opinions of the public about political, economic and social issues and
- 7414 Business and management consultancy activities  
 This class includes:  
 - provision of advice, guidance or operational assistance to businesses and the public service:  
 \* public relations and communication  
 \* design of accounting methods or procedures, cost accounting programmes, budgetary control procedures  
 \* advice and help to businesses and public services in planning, organization, efficiency and control,

management information etc.

\* management consultancy such as by agronomists and agricultural economists to farms etc.

This class also includes:

This class excludes:

- design of computer software for accounting systems, see 7229
- legal advice and representation, see 7411
- accounting, bookkeeping and auditing activities, tax consulting, see 7412
- market research and public opinion polling, see 7413
- architectural, engineering and other technical advisory activities, see 7421
- advertising activities, see 7430

742 Architectural, engineering and other technical activities

7421 Architectural and engineering activities and related technical consultancy

This class includes:

- architectural consulting activities:
  - \* building design and drafting
  - \* supervision of construction
  - \* town and city planning and landscape architecture
- machinery and industrial plant design
- engineering, project management and technical activities:
  - \* projects involving civil engineering, hydraulic engineering, traffic engineering
  - \* projects elaboration and realization relative to electrical and electronic engineering, mining engineering, chemical engineering, mechanical, industrial and systems engineering, safety engineering
- elaboration of projects using air conditioning, refrigerating, sanitary and pollution control engineering, acoustical engineering etc.
- geologic and prospecting activities:
  - \* oil and gas field exploration, geophysical, geologic and seismic surveying
  - \* exploration of mineral deposits and of groundwater
- weather forecasting activities
- geodetic surveying activities:
  - \* land and boundary surveying activities
  - \* hydrologic surveying activities
  - \* subsurface surveying activities
  - \* cartographic and spatial information activities, including aerial photography thereof

This class also includes:

- activities of technical consultants other than engineers

This class excludes:

- test drilling in connection with petroleum or gas extraction, see 1120
- test drilling and test hole boring, except for petroleum and gas extraction, see 4510
- activities of computer consultants, see 7210, 7229
- research and development activities, see 7310, 7320
- technical testing, see 7422
- aerial photography, see 7494
- interior decorating, see 7499

7422 Technical testing and analysis

This class includes:

- testing and inspection of all types of materials and products:
  - \* testing of composition and purity of minerals etc.
  - \* testing activities in the field of food hygiene, including veterinary testing and control in relation to food production
  - \* testing of physical characteristics and performance of materials, such as strength, thickness, durability, radioactivity etc.
  - \* qualification and reliability testing
  - \* performance testing of complete machinery: motors, automobiles, electronic equipment etc.
  - \* radiographic testing of welds and joints
  - \* failure analysis
  - \* testing and measuring of environmental indicators: air and water pollution etc.
- certification of products, including consumer goods, motor vehicles, aircraft, pressurized containers, nuclear plants etc.
- periodic road-safety testing of motor vehicles
- testing with use of models or mock-ups (e.g. of aircraft, ships, dams etc.)

This class excludes:

- testing and analysis of medical and dental specimens, see 8519
  - testing of animal specimens, see 8520
- 743      **Advertising**  
This class includes:
- creation and realization of advertising campaigns:
  - \* creating and placing advertising in newspapers, periodicals, radio, television, the Internet and other media
  - \* creating and placing of outdoor advertising, e.g. billboards, panels, bulletins and frames, window dressing, showroom design, car and bus carding etc.
  - \* media representation, i.e. sale of time and space for various media soliciting advertising
  - \* aerial advertising
  - \* distribution or delivery of advertising material or samples
- This class excludes:
- printing of advertising material, see 2221
  - market research, see 7413
  - public-relations activities, see 7414
  - advertising photography, see 7494
  - direct mailing activities (addressing, pre-sorting etc.), see 7499
  - production of commercial messages for radio, television and film, see 9211, 9213
- 749      **Business activities n.e.c.**
- 7491      **Labour recruitment and provision of personnel**  
This class includes:
- personnel search, selection referral and placement in connection with employment supplied to the potential employer or to the prospective employee:
  - \* formulation of job descriptions
  - \* screening and testing of applicants
  - \* investigation of references etc.
  - executive search and placement activities (headhunters)
  - labour-contracting activities:
  - \* supply to others, chiefly on a temporary basis, of personnel hired by, and whose emoluments are paid by, the agency
- This class excludes:
- activities of farm labour contractors, see 0140
  - activities of personal theatrical or artistic agents or agencies, see 7499
  - motion picture, television and other theatrical casting activities, see 9249
- 7492      **Investigation and security activities**  
This class includes:
- surveillance, guard and other protective activities:
  - \* transport of valuables
  - \* bodyguard activities
  - \* street patrol, guard and watchman activities for apartment buildings, offices, factories, construction sites, hotels, theatres, dance halls, sport stadiums, shopping centres etc.
  - \* security activities in the field of public transportation such as luggage and passenger inspection at airports as well as patrol activities in trains and subways
  - \* store detective activities
  - \* remote-controlled supervision/inspection of technical equipment, buildings etc.
  - \* pre-qualification of alarms (deciding whether it is a false alarm or not) and calling police, fire brigade and ambulances if necessary
  - consultancy in the field of industrial, household and public service security including security screening
  - activities of private investigators
- This class also includes:
- training of dogs for security reasons
- This class excludes:
- installation of alarm systems, see 4530
  - investigation in connection with insurance, see 6720
- 7493      **Building-cleaning and industrial-cleaning activities**  
This class includes:
- interior cleaning of buildings of all types, including offices, factories, shops, institutions and other business and professional premises and multi-unit residential buildings
  - window cleaning

- chimney cleaning and cleaning of fireplaces, stoves, furnaces, incinerators, boilers, ventilation ducts and exhaust units
- cleaning of industrial machinery
- sterilization of objects and premises
- bottle cleaning

This class also includes:

- disinfecting and exterminating activities for buildings, ships, trains etc.
- cleaning of trains, buses, planes etc.
- cleaning of inside of road and sea tankers

This class excludes:

- agricultural pest control, see 0140
- steam-cleaning, sandblasting and similar activities for building exteriors, see 4540
- cleaning of new buildings after construction, see 4540
- carpet and rug shampooing, drapery and curtain cleaning, see 9301

#### 7494 Photographic activities

This class includes:

- commercial and consumer photograph production:
  - \* portrait photography for passports, schools, weddings etc.
  - \* photography for commercials, publishers, fashion, real estate or tourism purposes
  - \* aerial photography
  - \* videotaping of events: weddings, meetings etc.
- film processing:
  - \* developing, printing and enlarging from client-taken negatives or cine-films
  - \* mounting of slides
  - \* copying and restoring or transparency retouching in connection with photographs

This class also includes:

- microfilming of documents

This class excludes:

- cartographic and spatial information activities, see 7421
- processing motion picture film related to the motion picture and television industries, see 9211

#### 7495 Packaging activities

This class includes:

- packaging activities on a fee or contract basis, whether or not these involve an automated process:
  - \* filling of aerosols
  - \* bottling of liquids, including beverages and food
  - \* packaging of solids (blister packaging, foil-covered etc.)
  - \* security packaging of pharmaceutical preparations
  - \* labelling, stamping and imprinting
  - \* parcel-packing and gift-wrapping

This class excludes:

- packing activities incidental to transport, see 6309

#### 7499 Other business activities n.e.c.

This class includes a great variety of service activities generally delivered to commercial clients.

This class includes:

- stenographic and mailing activities:
  - \* typing
  - \* other secretarial activities such as transcribing from tapes or discs
  - \* copying, blueprinting, multigraphing and similar activities
  - \* envelope addressing, stuffing, sealing and mailing, mailing list compilation etc., including for advertising material
- translation and interpretation
- bill collecting, credit rating in connection with an individual's or firm's creditworthiness or business practices
- business brokerage activities, i.e. arranging for the purchase and sale of small and medium-sized businesses, including professional practices
- patent brokerage activities (arranging for the purchase and sale of patents)
- appraisal activities other than for real estate and insurance
- fashion design related to textiles, wearing apparel, shoes, jewellery, furniture and other interior decoration and other fashion goods as well as other personal or household goods
- services of graphic designers
- activities of interior decorators
- activities of fair, exhibition and congress organizers

- activities of stand designers
- activities of self-employed auctioneers
- activities of consultants other than technical and engineering
- operation of enterprises on account of others
- trading stamp activities

This class also includes:

- proof-reading
- telephone answering activities
- call centre activities
- activities carried on by agents and agencies on behalf of individuals usually involving the obtaining of engagements in motion picture, theatrical production or other entertainment or sports attractions and the placement of books, plays, artworks, photographs etc., with publishers, producers etc.
- reading of gas, water and electricity meters

This class excludes:

- wholesale of used motor vehicles by auctioning, see 5010
- activities of auctioning houses (retail), see 5240
- online auction activities (retail), see 5259
- credit card activities, see division 65
- database activities, see 7240
- bookkeeping activities, see 7412
- machinery and industrial design, see 7421
- display of advertisement and other advertising design, see 7430

## **L Public administration and defence; compulsory social security**

See description of division 75.

### **75 Public administration and defence; compulsory social security**

This division includes activities normally carried out by the public administration. However, the legal or institutional status is not, in itself, the determining factor. This division includes units that are part of local or central public bodies that enable the administration of the community to function properly.

This division includes:

- general administration (e.g. executive, legislative, financial administration etc. at all levels of government) and supervision in the field of social and economic life (group 751)
- defence, justice, police, foreign affairs etc. (group 752)
- management of compulsory social security schemes (group 753)

Activities classified elsewhere in ISIC do not fall under division 75 even if carried out by public administrations. For example, administration of the school system (i.e. regulations, checks, curricula) falls under division 75, but teaching itself does not (see division 80), and a prison or military hospital is classified to health (see division 85). Similarly, some activities described in division 75 may be carried out by non-government units.

### **751 Administration of the State and the economic and social policy of the community**

#### **7511 General (overall) public service activities**

This class includes:

- executive and legislative administration of central, regional and local bodies
- administration and supervision of fiscal affairs:
  - \* operation of taxation schemes
  - \* duty/tax collection on goods and tax violation investigation
  - \* customs administration
- budget implementation and management of public funds and public debt:
  - \* raising and receiving of moneys and control of their disbursement
- administration of overall (civil) R&D policy and associated funds
- administration and operation of overall economic and social planning and statistical services at the various levels of government

This class excludes:

- administration of R&D policies intended to increase personal well-being and of associated funds, see 7512
- administration of R&D policies intended to improve economic performance and competitiveness, see

#### **7512 Regulation of the activities of agencies that provide health care, education, cultural services and other social services, excluding social security**

This class includes:

- public administration of programmes aimed to increase personal well-being:

- \* health
- \* education
- \* culture
- \* sport
- \* recreation
- \* environment
- \* housing
- \* social services
- public administration of R&D policies and associated funds for these areas

This class also includes:

- sponsoring of recreational and cultural activities
- distribution of grants to artists
- administration of potable water supply programmes
- administration of waste collection and disposal operations
- administration of environmental protection programmes
- administration of housing programmes

This class excludes:

- compulsory social security activities, see 7530
- education activities, see division 80
- human health-related activities, see group 851
- sewage and refuse disposal and sanitation, see 9000
- activities of libraries, public archives, museums and other cultural institutions, see 923
- sporting or other recreational activities, see 924

#### 7513 Regulation of and contribution to more efficient operation of business

This class includes:

- public administration and regulation, including subsidy allocation, for different economic sectors:
  - \* agriculture
  - \* land use
  - \* energy and mining resources
  - \* infrastructure
  - \* transport
  - \* communication
  - \* hotels and tourism
  - \* wholesale and retail trade
- administration of R&D policies and associated funds to improve economic performance
- administration of general labour affairs
- implementation of regional development policy measures, e.g. to reduce unemployment

This class excludes:

- research and experimental development activities, see division 73

#### 7514 Supporting service activities for the government as a whole

This class includes:

- general personnel and other general service activities:
  - \* administration and operation of general personnel services, whether or not connected with a specific function
  - \* development and implementation of general personnel policies and procedures covering selection and promotion, rating methods, job description, evaluation and classification, administration of civil service regulations etc.
- administration, operation and support of overall general services:
  - \* centralized supply and purchasing services
  - \* maintenance and storage of government records and archives
  - \* operation of government-owned or -occupied buildings
  - \* operation of central offices and other general services not connected with a specific function

#### 752 Provision of services to the community as a whole

#### 7521 Foreign affairs

This class includes:

- administration and operation of the ministry of foreign affairs and diplomatic and consular missions stationed abroad or at offices of international organizations
- administration, operation and support for information and cultural services intended for distribution beyond national boundaries
- aid to foreign countries, whether or not routed through international organizations
- provision of military aid to foreign countries
- management of foreign trade, international financial and foreign technical affairs

- international assistance, e.g. refugee or hunger relief programmes

## 7522 Defence activities

This class includes:

- administration, supervision and operation of military defence affairs and land, sea, air and space defence forces such as:
  - \* combat forces of army, navy and airforce
  - \* engineering, transport, communications, intelligence, material, personnel and other non-combat forces and commands
  - \* reserve and auxiliary forces of the defence establishment
  - \* provision of equipment, structures, supplies etc.
  - \* health activities for military personnel in the field
- administration, operation and support of civil defence forces
- support for the working out of contingency plans and the carrying out of exercises in which civilian institutions and populations are involved
- administration of defence-related R&D policies and related funds

This class excludes:

- research and experimental development activities, see division 73
- provision of military aid to foreign countries, see 7521
- activities of military tribunals, see 7523
- provision of supplies for domestic emergency use in case of peacetime disasters, see 7523
- educational activities of military schools, colleges and academies, see division 80
- activities of military hospitals, see 8511

## 7523 Public order and safety activities

This class includes:

- administration and operation of regular and auxiliary police forces supported by public authorities and of port, border, coastguards and other special police forces, including traffic regulation, alien registration, operation of police laboratories and maintenance of arrest records
- firefighting and fire prevention:
  - \* administration and operation of regular and auxiliary fire brigades supported by public authorities in fire prevention, firefighting, rescue of persons and animals, assistance in civic disasters, floods, road accidents etc.
- administration and operation of administrative civil and criminal law courts, military tribunals and the judicial system, including legal representation and advice on behalf of the government or when provided by the government in cash or services
- rendering of judgements and interpretations of the law
- arbitration of civil actions
- prison administration and provision of correctional services, including rehabilitation services
- provision of supplies for domestic emergency use in case of peacetime disasters

This class excludes:

- forestry fire-protection services, see 0200
- private firefighting and fire-prevention services in factories, see section D
- firefighting and fire-prevention services at airports, see 6303
- advice and representation in civil, criminal and other cases, see 7411
- administration and operation of military armed forces, see 7522
- activities of prison schools, see division 80
- activities of prison hospitals, see 8511

## 753 Compulsory social security activities

This class includes:

- funding and administration of government-provided social security programmes:
  - \* sickness, work-accident and unemployment insurance
  - \* retirement pensions
  - \* programmes covering losses of income due to maternity, temporary disablement, widowhood etc.

This class excludes:

- non-compulsory social security, see 6602
- provision of welfare services and social work, see 8531, 8532