

Foreword

This publication sets out the updated version of NACE Rev. 1¹

What is NACE ?

NACE is the acronym² used to designate the various statistical classifications of economic activities developed since 1970 by the European Union; it is designed to categorise data relating to "statistical units", in this case a unit of activity, for example an individual plant or group of plants constituting an economic entity such as an enterprise. It provides the basis for preparing a large range of statistics (output, inputs to the production process, capital formation and financial transactions) of such units.

What are statistical classifications ?

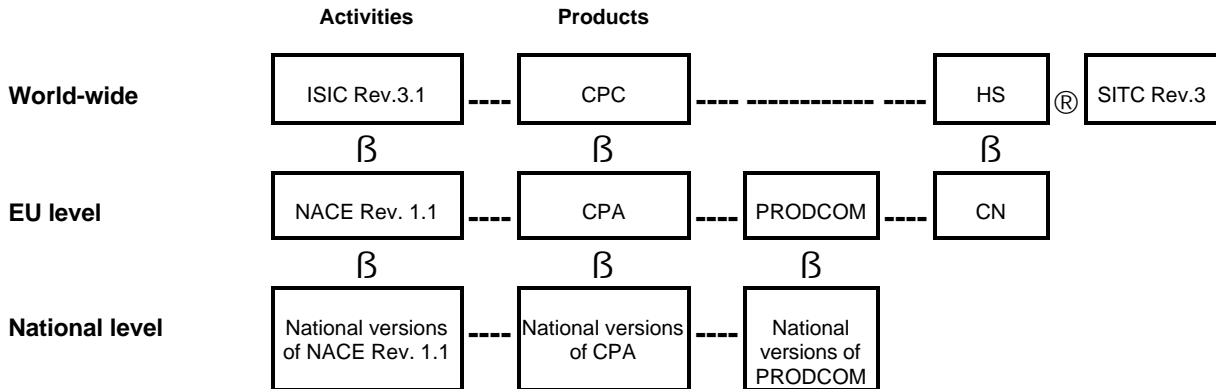
As a general rule, the main characteristics of statistical classifications are the following:

- (a) a strict and detailed hierarchical organization of the categories which makes it possible to collect and present the information at various levels of aggregation (based on data availability);
- (b) exhaustive coverage of the universe observed;
- (c) each phenomenon or object can be classified only in one category of the classification (mutually exclusive categories);
- (d) the allocation to the various categories of the classification is ruled by consistent methodological principles.

Integration of classifications at international level

During the nineties a thorough revision of the international statistical classifications has taken place, with the result that the new classifications have been developed as an integrated system of statistical classifications, whereby a) the various product classifications have been harmonized and b) the central product classifications have been related to the classifications of economic activities by the economic origin criterion. In addition to this integration at world level (mainly under the auspices of the United Nations), other regional instances, for instance, the European Union or the North American countries, have aligned to various extent their classifications with global classifications.

At the European level, this has given rise to an integrated system where the various classifications have been harmonized and linked at global, European Union and national level.



The United Nations, as convener of the Expert Group on International Economic and Social Classifications, have also developed their own typology of classifications based on the degree of integration in the revised system. A distinction is made here between *reference*, *related* and *derived* classifications.

Reference classifications are those economic and social classifications that are a product of international agreements approved by the United Nations Statistical Commission or another

¹ Commission Regulation (EC) No 29/2002 of 19 December 2001 amending Council Regulation (EEC) No 3037/90 on the statistical classification of economic activities in the European Community (OJ No L 6, 10.1.2002, p. 3)

² NACE is derived from the French "Nomenclature statistique des Activités économiques dans la Communauté Européenne" (Statistical classification of economic activities in the European Community)

competent intergovernmental board, such as ILO, IMF, UNESCO, etc. depending upon the subject matter area. Thus reference classifications have achieved broad acceptance and official agreement and are approved and recommended as guidelines for the preparation of classifications. An example of such classification is the United Nations' International Standard Industrial Classification of All Economic Activities, Revision 3 (ISIC Rev.3).

Derived classifications are based upon reference classifications. They may be prepared either by adopting the reference classification structure and categories, and then possibly providing additional detail beyond that provided by the reference classification, or they may be prepared through rearrangement or aggregation of items from one or more reference classification. Derived classifications are often tailored for use at the national or multi-national level. An example of such classification is the European Union's NACE Rev. 1.1 classification.

Related classifications are those that partially refer to reference classifications, or that are associated with the reference classification at specific levels of the structure only. Examples of such classifications are the Australian and New Zealand Standard Industrial Classification (ANZSIC) or the North American Industry Classification System (NAICS).

Why revisions ?

Changing economic structures and new technology generate new activities and products which overtake existing activities and products in importance. Such change is thus a constant challenge for the compilation of statistical classifications. The intervals between revisions must not be too long, since the relevance of the classification diminishes with time, nor must they be too short, since otherwise the comparability of the data over time is adversely affected. Any revision of a classification, particularly if it also includes structural changes, is bound to lead to breaks in the time series.

Why now ?

The advantages of the integrated system described above are recognized by all. Such a system, however, also puts constraints on the participating parties.

The goods part of ISIC/CPC (and the linked European NACE/CPA)³ is based on the Harmonized System⁴. When the HS changes, they have to change also.

A major structural change to CPA at or above the 4-digit level depends on a revision of NACE Rev. 1, since CPA is directly linked in its structure to NACE Rev. 1.

NACE Rev. 1 is directly linked to the structure of ISIC Rev.3. The commitment to maintain the international linked system makes it imperative to undertake a revision of NACE Rev. 1 together with ISIC Rev.3.

Revision time-schedule

HS has a 5-year rhythm for revisions. HS was revised in 2001 for introduction on January 1, 2002. Since revisions of the linked classifications for reasons of consistency and transparency should take place simultaneously, Eurostat and UN have agreed upon a common time-schedule for updates/revisions of ISIC/CPC and NACE/CPA:

2002 update of ISIC/CPC (and NACE/CPA)

2007 revision of ISIC/CPC (and NACE/CPA)

The updated NACE and CPA have been developed in parallel with the update of ISIC and CPC in close collaboration between UN and Eurostat.

Classification availability

RAMON, Eurostat's classifications server, aims at making available as much information as possible relating to the main international statistical classifications used in various fields: economic analysis, environment, education, occupations, national accounts, etc.

Whenever available, the information covers the following aspects: general description; structure of the classifications (i.e. codes and headings); explanatory notes; correspondence tables between classifications; methodological documents; other general information relating (closely or less closely) to classifications.

³ CPC: Central Product Classification of the United Nations; CPA is the European Union's product classification derived from the CPC. The full title of CPA is: Statistical classification of products by activity in the European Economic Community.

⁴ Harmonized Commodity Description and Coding System, maintained by the World Customs Organization (established in 1952 as the Customs Co-operation Council - CCC).

Whenever available, the information is presented in all European Union official languages.

The objective is to build a central reference place for people looking for any kind of information on international statistical classifications.

The updated ISIC/CPC and NACE/CPA are available on the RAMON server.

The RAMON server can be publicly accessed on the Web at the following address:
<http://www.europa.eu.int/comm/eurostat/ramon/>.

History of NACE

NICE

Between 1961 and 1963, the “Nomenclature des Industries établies dans les Communautés Européennes” (NICE) (Classification of Industries Established in the European Communities) was developed. The original (1961) version had broad divisions with entries down to 3 digits. The revised (1963) edition had more detailed subdivisions. NICE covered extractive, energy-producing and manufacturing industries and construction.

NCE

In 1965, the “Nomenclature du commerce dans la CEE” (NCE) (Classification of Trade and Commerce in the European Communities) was compiled to cover all commercial activities.

In 1967, a classification for services was compiled, followed by one for agriculture, both in broad divisions.

NACE 1970

Finally, in 1970, the “Nomenclature générale des activités économiques dans les Communautés européennes” (NACE - General Industrial Classification of Economic Activities within the European Communities) was compiled. As its name implies, it is a classification covering the whole range of economic activity.

NACE 1970 suffered from two major drawbacks:

- 1) As it had not been covered by Community legislation, data were often collected according to the national classifications and then transformed to a NACE format by means of conversion keys, which did not produce satisfactory compatible data;
- 2) Because NACE 1970 had not been developed from a recognized international framework, it offered poor comparability with other classifications of economic activities

NACE Rev. 1

In view of these problems, the decision was taken in the eighties to consider the possibility of aligning the EU classification of economic activities with the international standards.

Through a joint United Nations Statistical Office/Eurostat working group, Eurostat and representatives of the Member States were closely involved in the third revision of the International Standard Industrial Classification of All Economic Activities (ISIC Rev.3), which was adopted by the United Nations Statistical Commission in February 1989.

Subsequently, a working group made up of Eurostat and representatives of the Member States developed a revised version of NACE 1970, NACE Rev. 1. Starting from the structure of ISIC Rev.3, sufficient detail was added to reflect the more important activities of the Member States that were inadequately represented in ISIC. Special features of national classifications were introduced in this process.

NACE Rev. 1.1

NACE Rev. 1.1 is a minor update with no significant restructuring of the NACE Rev. 1. The aim with the update was to reflect:

- 1) New activities which did not exist when NACE Rev. 1 was developed.
- 2) Activities which had manifestly grown in importance since NACE Rev. 1 was developed, either due to technological change or in economic reality.
- 3) Correction of errors in the original NACE Rev. 1, if these errors were known at the time,

and not errors due to a change in philosophy.

NACE Rev. 1.1 contains very few additional items, and apart from a few changes to titles and changes due to the expiry of the ECSC Treaty in July 2002, the main changes are:

- A breakdown of NACE 29.40 (manufacture of machine tools) into three classes, portable hand held, metalworking and other.
- A breakdown of NACE 40.10 (production and distribution of electricity) into three new classes, one for manufacture, one for transmission and one for distribution and trade.
- A breakdown of NACE 40.20 (manufacture of gas; distribution of gaseous fuels through mains) into one class for manufacture and one for distribution and trade.
- A breakdown into two new classes each of wholesale classes NACE 51.64 (wholesale of office machinery and equipment) and NACE 51.65 (wholesale of machinery for use in industry, trade and navigation).
- A new class for call centre activities.
- A new class for publishing of software.
- A breakdown of NACE 90.00 (sewage and refuse disposal, sanitation and similar activities) into three classes for collection and treatment of sewage, collection and treatment of other waste and for sanitation, remediation and similar activities.

NACE Regulation

Legal obligation

Member States and the Commission decided that NACE Rev. 1 should be introduced uniformly and at the same time in all Member States. The European Council of Ministers approved a Regulation on 9 October 1990.

The Regulation was published in the Official Journal of the European Communities No L 293 of 24.10.1990 as Regulation (EEC) No 3037/90. The text of the Regulation can be found in Part Two of this publication. The EEA⁵ Agreement also embodies a reference to NACE Rev. 1, which the EFTA countries are also required to adopt.

First update of NACE Rev. 1

The experience gained in Member States made it clear that a certain number of minor changes were desirable and the Commission has, with the approval of the Management Committee, issued Commission Regulation (EEC) No 761/93⁶.

Management

The Commission and a committee of representatives of Member States are charged with monitoring the implementation of the Regulation, making minor amendments (for example to reflect technological change) and liaising with international organizations concerned with classifications of economic activities.

NACE in the Member States

From the outset, the European Commission had intended that the NACE Rev. 1 should be used by all Member States for both the compilation and the presentation of the statistical data. Statistics collected by the Member States of the European Union involving classification by economic activity must now be compiled according to NACE Rev. 1.1 or a national classification derived from it.

It must be stressed that this obligation applies to all types of statistics, i.e. even to those compiled for national purposes only and which do not currently form part of the European Statistical System. This provision thus makes the European classification of economic activities into a nationally binding classification.

⁵ European Economic Area: Cooperation between the European Union and Iceland, Liechtenstein and Norway.

⁶ Commission Regulation (EEC) No 761/93 of 24 March 1993 amending Council Regulation (EEC) No 3037/90 on the statistical classification of economic activities in the European Community (OJ No L 83, 3.4.1993, p. 1, and corrigendum, OJ No L 159, 11.7.1995, p. 31).

The NACE Rev. 1.1 Regulation allows Member States to use a national version derived from NACE Rev. 1.1 for national purposes. Such national versions must, however, fit into the structural and hierarchical framework laid down by NACE Rev. 1.1.

All Member States have developed national versions, almost all by adding a 5th digit for national purposes.

NACE in other countries

In addition to the Member States more than 15 countries outside the EU are using or implementing national versions of NACE Rev. 1.1.

Coding system

The coding of NACE Rev. 1.1 comprises:

- a first level consisting of headings identified by an alphabetical code (sections),
- an intermediate level consisting of headings identified by a two-character alphabetical code (subsections),
- a second level consisting of headings identified by a two-digit numerical code (divisions),
- a third level consisting of headings identified by a three-digit numerical code (groups),
- a fourth level consisting of headings identified by a four-digit numerical code (classes).

In order to permit easy identification of NACE Rev. 1.1, a full stop was inserted between the second and third places in NACE Rev. 1.1. codes.

Relationship with other activity classifications

ISIC

UN classification

ISIC Rev.3⁷ is the classification of economic activities drawn up by the United Nations and recommended for use throughout the world. The current version (Third Revision) was approved by the Statistical Commission of the United Nations in February 1989. The first version of ISIC dates back to 1948, and revised versions were published in 1958 and 1968. An updated ISIC Rev.3.1 will be published in 2002.

NACE Rev. 1.1 is the classification of economic activities corresponding to ISIC Rev.3.1 at European level. It is totally in line with ISIC Rev.3.1 and can thus be regarded as its European counterpart.

NACE link to ISIC

NACE Rev. 1.1 is a simple subdivision of ISIC Rev.3.1

The first level of ISIC Rev.3.1 (sections) is taken over unchanged in NACE Rev. 1.1, but disaggregated into subsections in some areas.

The second level of ISIC Rev.3.1 (divisions) is taken over unchanged in NACE Rev. 1.1.

The third and fourth levels (groups and classes) of ISIC Rev.3.1 are subdivided in NACE Rev. 1.1 according to European requirements. However, the groups and classes of NACE Rev. 1.1 can always be aggregated into the groups and classes of ISIC Rev.3.1 from which they were derived.

The aim of the further disaggregations in NACE Rev. 1.1, as compared with ISIC Rev.3.1, is to obtain a classification more suited to the structures of the European economies. Since the groups and classes of ISIC Rev.3.1 were broken down further for NACE Rev. 1.1 - albeit without introducing further hierarchical levels - some of the corresponding elements in NACE Rev. 1.1 had to be recoded differently from the corresponding ISIC Rev.3.1 numbers. A single activity at the level of groups and classes may therefore have a numerical code in NACE Rev. 1.1, which differs from that in ISIC Rev.3.1.

⁷ International Standard Classification of All Economic Activities, Third Revision, United Nations, Statistical Papers, Series M, No 4, Rev. 3, New York 1990.

NAICS

North America

NAICS is the North American activity classification. NAICS was developed to provide common industry definitions for Canada, Mexico, and the United States that facilitate economic analyses of the economies of the three North American countries. NAICS is constructed on a production-oriented or supply-based conceptual framework. This means that producing units that use identical or similar production processes are grouped together in NAICS.

Can we compare data?

The system strives for compatibility with the two-digit level of the International Standard Industrial Classification of All Economic Activities (ISIC Rev.3) of the United Nations. However, there are major differences between the NAICS and ISIC classification schemes. Most important, perhaps, is the single (production process) conceptual framework of NAICS, which is unique among industry classifications. In the development of NAICS industries, the statistical agencies of the three countries strove to create industries that did not cross ISIC two-digit boundaries. An easy conversion of data according to NAICS into ISIC/NACE is not possible. However, a detailed concordance between NAICS and ISIC, Revision 3 is published on the NAICS Internet web site (USA: <http://www.census.gov/naics>, Canada: <http://www.statcan.ca/>).

ANZSIC

Australia and New Zealand

The Australian and New Zealand Standard Industrial Classification (ANZSIC) has been developed for use in both countries for the production and analysis of industry statistics. It replaces the Australian Standard Industrial Classification (ASIC) and the New Zealand Standard Industrial Classification (NZSIC) which had been in use for many years.

Can we compare data?

In the development of the ANZSIC greater emphasis has been placed on alignment with the international standards than has been the case in the past. The International Standard Industrial Classification of All Economic Activities (ISIC), Revision 3, has been used as the international standard for reference purposes. Alignment with ISIC was considered to be highly desirable, but this was departed from where following the ISIC was inappropriate for local conditions and requirements. Broad concordances between the ANZSIC, the NZSIC, the ASIC and the ISIC can be found at the ABS web site: <http://www.statistics.gov.au/>.

ANZSIC is much closer to ISIC/NACE than NAICS, and conversion of data according to ANZSIC into ISIC/NACE is possible at a fairly detailed level.

Rest of the world

Currently over 140 countries are using classifications of economic activities bases either on NACE Rev. 1 or ISIC Rev.3 which makes data highly comparable.

The future

For the long-term development of the classifications Eurostat is working towards convergence with the major areas still outside the international classification system i.e. North America and Japan. The work is carried out both through the United Nations Expert Group on International Economic and Social Classifications as well as through bilateral contacts.

Ad-hoc classifications

We need something NOW!

In view of the lengthy periods of time necessary for revisions Eurostat has set up a system to minimize the inconveniences. In order to satisfy the growing demand, especially for data on fast changing services, which cannot be satisfied by the use of present economic classifications, Eurostat has created *ad hoc* classifications for fast changing areas of the economy.

Eurostat is collecting these in a database indicating best practice, circulating the information to all involved parties in the EU and ensuring that they are circulated worldwide in the UN system in order to make them best practice interim standards.

Eurostat is pro-actively encouraging working groups to pursue large scale testing of best practice proposals through gentleman's agreements.

Eurostat is using the lessons learned in forthcoming revisions of the official classifications.

Relationship with product classifications

Any level of a classification of economic activities can generally be described in terms of the output of its characteristic goods or services. As a tool in the practical everyday statistical work, product classifications can be helpful in delineating the characteristic products of the individual activities.

CPC

UN Central Product Classification

The Central Product Classification (CPC) was devised by the United Nations. Before the CPC was developed, the international system did not have any classification which encompassed both goods and services. CPC was drawn up in 1989⁸ (and revised in 1997)⁹. An updated CPC Version 1.1 will be published in 2002.

The CPC was created with the aim of providing a framework for the comparison of many different kinds of statistics concerning goods and services. Its purpose is therefore not to replace other product classifications, but rather to enable the latter to be harmonised in such a way that data can be transposed into the relevant categories of the CPC. The CPC can thus be regarded as a means of harmonisation at both international and national level.

As regards goods, the CPC uses the headings and subheadings of the HS (Harmonised Commodity Description and Coding System) as building blocks, i.e. every heading at the lowest level of the CPC corresponds exactly to a heading or subheading of the HS or to an aggregation of two or more HS headings or subheadings. With respect to goods, therefore, the definition of categories in the HS is used as the basis for classification in the CPC.

The CPC has its own coding system which is independent of ISIC Rev.3.1. The aim of this is to ensure that the CPC is not regarded simply as an extension of the ISIC Rev.3.1 in the form of a list of goods and services.

Structure of CPC

The criterion according to which the CPC arranges products is their "material composition and nature (properties)". This includes, for example, the type of raw material used, the production process involved, the purpose for which the goods are intended, etc. Although this criterion is often the same as that used for classifications of economic activities, the CPC should not be regarded as a mere product classification forming part of a classification of economic activities. It is, therefore, also structured differently from ISIC Rev.3.1.

Despite this specific approach, however, the CPC has also taken into consideration the criterion of economic origin. Thus efforts were made to define headings at the lowest level of the CPC in such a way that as many products as possible at this level can be allocated to a single category of ISIC Rev.3.1.

CPA

The CPA¹⁰ is the European version of the CPC, and the purposes it serves are in line with those of the CPC. Whilst the CPC is merely a recommended classification, however, the CPA is legally binding in the European Community. In addition, specific survey classifications are linked to the CPA unless the CPA is itself used as a survey classification.

Although the CPA is the European counterpart of the CPC, it differs from the latter not only in that it is more detailed but also as regards its structuring. The view at European level is that a central product classification should be structured according to the criterion of economic origin, with the framework (and thus the definition of the economic activities) being based, naturally enough, on NACE Rev. 1.1. This recourse to NACE Rev. 1.1 with respect to the definitions of economic activity means that the CPA's structure corresponds at all levels to that

⁸ Provisional Central Product Classification, United Nations, Statistical Papers, Series M, No. 77, New York 1991.

⁹ Central Product Classification (CPC) Version 1.0, Statistical Papers, Series M, No. 77, Ver. 1.0, New York 1999

¹⁰ Council Regulation (EEC) No 3696/93 of 29 October 1993 on the statistical classification of products by activity (CPA) in the European Economic Community, OJ L 342 of 31 December 1993.

of NACE Rev. 1.1. The CPC subclasses are re-arranged according to their economic origin.

Finally, further subdivisions are included in line with the specific requirements of the Community and the individual Member States. As a result of this breakdown, the CPA has more subcategories than the CPC has subclasses.

The link between the CPA and NACE Rev. 1.1 can be seen in the coding. At all levels of the CPA, the coding of the first 4 digits is identical with that used in NACE Rev. 1.1.

National versions of the CPA exist in the same way as national versions of NACE Rev. 1.1.

CPA was elaborated in 1993, updated in 1996, and a new version, in line with the updated NACE Rev. 1, is introduced in 2003.

HS

The Harmonised System has a key role in the development of the revised international system of economic classifications, providing the building blocks for the central product classifications.

HS is the international customs product classification drawn up by the World Customs Organisation for foreign trade.

As many other countries, EU Member States have since 1988 been using the HS for both customs tariff and foreign trade statistics purposes. The HS is a hierarchically structured goods classification. It is divided into 96 chapters, which are each identified by means of a two-digit numerical code. The chapters are subdivided into headings, which are in turn subdivided into approximately 5000 subheadings. The headings are identified by means of a four-digit and the subheadings by a six-digit numerical code.

Although the HS basically covers goods, i.e. products which have a physical dimension, it also encompasses electricity. Its structure is such that any goods item can be assigned unambiguously to a specific heading within the system. The HS therefore does not cover services, but clearly does cover the physical "manifestations" of services (e.g. architects' plans, diskettes with software, etc.).

HS is revised for implementation 1.1.2002.

CN

The Combined Nomenclature is the classification used within the EU for the purposes of foreign trade and provides a degree of detail going beyond that in the HS. The CN was introduced in 1988 together with the HS. Headings in the CN are identified by means of an eight-digit numerical code.

Additional subdivisions within the CN are introduced with the EU's specific customs and foreign trade statistics requirements in mind. The CN is revised every year and, as a Council Regulation, is binding on the Member States¹¹.

PRODCOM

"PRODCOM" is the abbreviation for the EU system of production statistics for mining and manufacturing (i.e. excluding services). The product classification (PRODCOM list) upon which production statistics is based is drawn up each year by the PRODCOM committee.

The headings of the PRODCOM list are derived from the HS or the CN, which thus enables comparisons to be made between production statistics and foreign trade statistics. PRODCOM headings are coded using an eight-digit numerical code, the first six digits of which are identical to those of the CPA code. The PRODCOM list is therefore linked to, and consistent

¹¹ Most recently: Commission Regulation (EC) No 2031/01 on the tariff and statistical nomenclature and on the Common Customs Tariff (OJ No L 279 of 23 October 2001, p. 1)

with, CPA.

Principles used in constructing NACE

Criteria for divisions and groups

The main criteria employed in delineating divisions and groups (the two- and three-digit categories, respectively) of NACE concern the characteristics of the activities of producing units which are strategic in determining the degree of similarity in the structure of the units and certain relationships in an economy. The major aspects of the activities are:

- (i) the character of the goods and services produced,
- (ii) the uses to which the goods and services are put, and
- (iii) the inputs, the process, the technology of production.

The weights assigned to these criteria vary from one category to another. In a number of instances, e.g. food manufacturing, the textile, clothing and leather industries, the production of machinery and equipment and the service industries, the criteria are so close that the problem of assigning weights is not significant.

In the case of intermediate products, physical composition and stage of fabrication of the items are often given the greatest weight.

In the case of goods with complicated production process, the end-use, technology and organization of production of the items are frequently given priority over the physical composition of the goods.

Criteria for classes

The criteria concerning the manner in which activities are combined in, and allocated among, enterprises are central in the definition of classes (four-digit categories). They are intended to ensure that it will be practical most of the time to use the classes of NACE for the industrial classification of kind-of-activity units or enterprises, and that the units falling into each class will be as similar in the kinds of activity in which they engage, as is feasible.

The classes of NACE are defined so that as far as possible the following two conditions are satisfied:

- (i) the production of the category of goods and services which characterizes a given class accounts for the bulk of the output of the units classified to that class, and
- (ii) the class contains the units which produce most of the category of goods and services which characterize it.

Kind of ownership

NACE does not draw distinctions according to kind of ownership, type of legal organization or mode of operation because such criteria do not relate to the characteristics of the activity itself. Units engaged in the same kind of economic activity are classified in the same way, irrespective of whether they are incorporated enterprises, individual proprietors or government, and whether or not the parent enterprise consists of more than one unit.

Classifications according to kind of legal ownership, kind of organization or mode of operation may be constructed independently of the activity classification. Cross-classification with NACE will provide useful extra information.

Similarly, manufacturing units are classified according to the principal kind of economic activity in which they engage, whether the work is performed by power-driven machinery or by hand, or whether it is done in a factory or in a household; modern versus traditional is not a criterion.

Market vs. non-market

In the structure of NACE Rev. 1.1 the distinction between market and non-market activities is not a consideration, even though this had been the case in NACE 1970. Although there are some classes in NACE Rev. 1.1 that are normally non-market (for example, certain classes of division 75), there are several other ones, which define activities that are usually carried out both market and non-market.

Definitions

Definition of activities

Activity

An activity is said to take place when resources such as equipment, labour, manufacturing techniques, information networks or products are combined, leading to the creation of specific goods or services. An activity is characterized by an input of products (goods or services), a production process and an output of products.

In practice the majority of production units perform activities of a mixed character. The identification of a principal activity is necessary to allocate a unit to a particular NACE Rev. 1.1 heading.

Principal activity

The principal activity is identified by the top-down method as the activity, which contributes most to the total value added of the entity under consideration. The principal activity so identified does not necessarily account for 50% or more of the entity's total value added.

Secondary activity

A secondary activity is any other activity of the entity that produces goods or services.

Ancillary activities

Principal and secondary activities are generally carried out with the support of a number of ancillary activities, such as accounting, transportation, storage, purchasing, sales promotion, repair and maintenance, etc. Thus, ancillary activities are those that exist solely to support the main productive activities of an entity by providing non-durable goods or services for the use of that entity.

However, if the activities of the statistical unit and the corresponding ancillary activities (e.g. a computing centre) are carried out in different geographical areas, it may be desirable to collect separate information on these units for the categories of data which have to be classified in terms of geographical area.

What an ancillary activity is

An **ancillary activity** must satisfy the following conditions:

- (a) it serves only the unit or units referred to and its goods or services must not be sold on the market;
- (b) a comparable activity on a similar scale is performed in similar production units;
- (c) it produces services or, in exceptional cases, non-durable goods which do not form part of the unit's end product;
- (d) it contributes to the current costs of the unit itself, i.e. it does not generate gross fixed capital formation.

What an ancillary activity is not

It should be noted that under the above definition the following are **not** to be regarded as ancillary activities:

- (a) producing goods and services that are part of capital formation; for example, construction work for own account, which would be separately classified to construction if data are available;
- (b) production, a significant part of which is sold commercially, even if much of it is consumed in connection with principal activities;
- (c) the production of goods which subsequently become an integral part of the output of the principal or secondary activity (e.g. production of boxes by a department of an enterprise for packing its products);
- (d) the production of energy (an integrated power station or coking plant), even though the whole output is consumed by the parent unit;
- (e) the purchase of goods for resale in an unaltered state;
- (f) research and development, as this activity does not provide a service that is consumed in the course of current production.

In all these cases, where separate data are available for these activities, separate units should be distinguished and they should be recognised as kind-of-activity units and classified according to their activity.

Statistical units

Data availability

A wide range of information is required to construct a complete statistical picture of industrial activity, but the organizational level at which it is feasible to assemble the information varies according to the type of data. For example, profits data for a company may be available from

only one geographically central location in respect of several different locations, whereas product sales data may be available in respect of each of the separate locations. To observe and analyse the data satisfactorily, it is therefore necessary to define a family of statistical units. These form the building blocks for the allocation of the appropriate classification and in respect of which data can be collected.

Different types

Different types of statistical units meet different needs, but each unit is a specific entity, which is defined in such a way that it can be recognized and identified and not confused with any other unit. It may be an identifiable legal or physical entity or, as, for example, in the case of the unit of homogeneous production, a statistical construct.

International comparability

In order to ensure international comparability the definitions adopted for use within the European Union are linked directly to those given in the introduction to the United Nations International Standard Industrial Classification of All Economic Activities (ISIC Rev.3.1) and the United Nations System of National Accounts.

The units

The following are the units that are described in the Council Regulation on statistical units¹²:

The enterprise group;
 the enterprise;
 the kind-of-activity unit (KAU);
 the local unit;
 the local kind-of-activity unit (local KAU);
 the institutional unit;
 the unit of homogeneous production (UHP);
 the local unit of homogeneous production (local UHP).

The relationship between the different types of statistical units is illustrated in the following table:

	One or more locations	A single location
One or more activities	Enterprise Institutional unit	Local unit
One single activity	KAU UHP	Local KAU Local UHP

Classification rules for units

The units included in statistical registers¹³ are classified by NACE Rev. 1.1. The interpretation of NACE Rev. 1.1 is helped by the addition of explanatory notes, decisions of the NACE Rev. 1.1 management committee, correspondence tables and by reference to other classification systems such as the CPC, CPA, HS, CN¹⁴, etc.

Each unit is classified on the basis of the activities carried out within it. In certain cases a unit cannot be classified separately as links with other units may have to be taken into consideration.

Units should be classified to the category that best describes their activity, taking into account not only the output structure but also the input structure, including the production process.

Basic classification rules

Value-added

Value added is the basic concept for the determination of the classification of a unit according to economic activities. Being the difference between output and intermediate consumption, value added is an additive measure of the contribution of each economic unit to Gross Domestic Product (GDP). The relevant valuation concept is gross value added at basic prices. Gross value added at basic prices is defined as the difference between output at basic prices and intermediate consumption at purchaser's prices. Thus, value added at basic prices consists of other taxes on production, net, compensation of employees, consumption of fixed capital

¹² Council Regulation (EEC) No 696/93 of 15 March 1993 on the statistical units for the observation and analysis of the production system in the Community (OJ No L 76, 30.3.1993, p 1).

¹³ Council Regulation (EEC) No 2186/93 of 22 July 1993 on Community coordination in drawing up business registers for statistical purposes (OJ No L 196, 5.8.1993, p. 1).

¹⁴ Combined Nomenclature – a further disaggregation of the Harmonized System.

and a balancing item operating surplus.

Economic activities are defined in NACE Rev. 1.1. A unit may perform one or more economic activities falling under one or more positions in NACE Rev. 1.1. Units are classified according to their principal activity. The principal activity is the activity, which contributes most to the value added of the unit at basic prices.

Within one NACE class?

In the simple case where, at class level, a unit performs only one activity, the activity classification of that unit is determined by the position of NACE Rev. 1.1, which covers the activity of that unit. Where a unit, at class level, performs more than one activity but all of them fall under the same position of NACE Rev. 1.1, then the activity classification of that unit is determined by the position of NACE Rev. 1.1 in which all these activities are covered.

In different classes?

In the case where, at class level, a unit performs activities falling under different positions of NACE Rev. 1.1, rules are necessary for the determination of the principal activity. In the simple case that, at class level, one activity accounts for more than 50 % of value added, this determines the classification of the unit.

Where a unit performs activities falling in only two different positions of NACE Rev. 1.1, there will always be one position which accounts for more than 50% of value added, except in the highly unlikely case that both activities of the different positions of NACE Rev. 1.1 have equal shares of 50%.

In the more complex case where a unit performs more than two activities falling into more than two different positions of NACE Rev. 1.1, with none of them accounting for more than 50 % of value added, the activity classification of that unit has to be determined by using the top-down method.

Top-down method

The top-down method follows a hierarchical principle: the classification of a unit at the lowest level of the classification must be consistent with the classification of the unit at the higher levels. To satisfy this condition the process starts with the identification of the relevant position at the highest level and progresses down through the levels of the classification in the following way:

Identify the section which has the relatively highest share of the value added.

Within this section identify the division which has the relatively highest share of the value added within this section.

Within this division identify the group which has the relatively highest share of the value added within this division.

Within this group identify the class which has the relatively highest share of value added within this group

Example

A reporting unit may carry out the following activities:

Section	Division	Class	Description of the class	Share	
D	28	28.71	Manufacture of steel drums and similar containers	7%	
		29.31	Manufacture of agricultural tractors	8%	
		29.41	Manufacture of portable hand held power tools	3%	
		29.53	Manufacture of machinery for food, beverage and tobacco processing	21%	
	29.55	Manufacture of machinery for paper and paperboard production	8%		
G	51	34	34.30	Manufacture of parts and accessories for motor vehicles and their engines	5%
		51.14	Agents involved in the sale of machinery, industrial equipment, ships and aircraft	7%	
K	74	51.88	Wholesale of agricultural machinery and accessories and implements, including tractors	28%	
		74.20	Architectural and engineering activities and related technical consultancy	13%	

Identify the section

Section D	Manufacturing	52%
Section G	Wholesale and retail trade; repair of motor vehicles, motorcycles	35%

	Section K	and personal and household goods Real estate, renting and business activities	13%
Identify the division	Division 28	Manufacture of fabricated metal products, except machinery and equipment	7%
	Division 29	Manufacture of machinery and equipment n.e.c.	40%
	Division 34	Manufacture of motor vehicles, trailers and semi-trailers	5%
Identify the group	Group 29.3	Manufacture of agricultural and forest machinery	8%
	Group 29.4	Manufacture of machine-tools	3%
	Group 29.5	Manufacture of other special purpose machinery	29%
Identify the class	Class 29.53	Manufacture of machinery for food, beverage and tobacco processing	21%
	Class 29.55	Manufacture of machinery for paper and paperboard production	8%

And the winner is...

The principal activity is therefore: 29.53 Manufacture of machinery for food, beverage and tobacco processing», although the class with the biggest share of value added is class: 51.88 Wholesale of agricultural machinery and accessories and implements, including tractors.

If the allocation had been made directly to the class with the largest share of value added this would have achieved the strange result of putting this enterprise outside manufacturing.

All levels consistent

The top-down method satisfies the principle that at the lower levels the activity classification is in conformity with the principal activity of the unit from the point of the upper levels of the activity classification¹⁵. At lower levels of the classification the share of value added of the position of NACE Rev. 1.1 that results from using the top-down method will not necessarily account for more than 50% of total valued added of that unit. The more one proceeds from the upper levels to the lower ones of the hierarchical structure of NACE Rev. 1.1, the more often this will be the case. Theoretically, one could imagine also at the highest hierarchical level of NACE Rev. 1.1 no position accounting for more than 50% of value added of a unit.

To what level do you descend?

In principle the top-down method permits determination of the principal activity of a unit down to the lowest level of the hierarchical activity classification, in practice it is only necessary to apply the method to the lowest level which is really used in a specific application. This can for example be the division or group level according to the respective rules of the specific application. The NACE Rev. 1.1 Regulation itself does not stipulate the use of a certain hierarchical level.

But I do not know value-added?

In order to determine the principal activity of a unit the shares of value added for the activities falling under different positions of NACE Rev. 1.1 of that unit have to be known. However, in practice, it is often not possible to obtain the information on value added of the different activities performed and the determination of the activity classification has to be done by using substitute criteria. Such criteria could be:

Substitutes based on output

- gross output of the unit that is attributable to the goods or services associated with each activity.

Substitutes based on input:

- value of sales of those groups of products falling within each activity.
- wages and salaries attributable to the different activities.
- employment in the activities according to the proportion of people engaged in the different activities of the unit.

But they are only approximations

Such substitute criteria have to be used as proxies for the unknown value added data, thus to obtain the best approximation possible compared to the result which would have been obtained on the basis of the value added data. The use of substitute criteria does not change the methods to determine the principal activity, or the rules of the top-down method. They are only operational approximations of value added data.

However, the simple use of the above listed substitute criteria may sometimes be misleading. This will always be the case when the structure of the substitute criteria is not proportional to the (unknown) value added.

Problems with output substitutes

Using the sales (turnover) criteria it immediately becomes evident that in certain cases the proportionality of turnover and value added is not valid. For example, trade turnover usually

¹⁵ Also in the simple cases of a unit performing only one activity or only two activities one could apply the top-down method. However, in such cases the determination of the activity classification of such units is straightforward without explicitly applying the top-down method.

has a much lower share of value added than a manufacturing activity. Other examples are turnover of forwarding agents or of general contractors. Even within manufacturing the relation between sales and the resulting value added may vary between and within activities. In some cases a turnover figure makes no sense or does not exist, e.g. financial intermediation activities, insurance activities. The same considerations should be borne in mind when using gross output data as substitute criteria.

Many units perform trade and other activities. In such cases trade turnover figures are the most unsuitable indicators for the unknown value added share of the trade activity. A much better indicator is the gross margin (difference between the trade turnover and purchases of goods for resale adjusted by changes in stocks). However, the trade margins may vary within a single wholesale and retail trade and also between trade activity. In addition, one has to consider the specific classification rules for retail trade as set out below must be considered.

Problems with input substitutes

Similar precautions have to be considered when input based substitute criteria are applied. The proportionality between wages and salaries or employment and value added is not reliable if the capital intensity of the various activities is different. Higher capital intensity normally implies higher depreciation and a lower share of wages and salaries in value added. Capital intensity varies substantially between different economic activities and also between activities of the same NACE Rev. 1.1 class. For example, the activity of waste collection will probably have a lower capital intensity than the activity of waste incineration. However, both activities fall in the same NACE Rev. 1.1 class 90.02.

Activity specific rules

The basic rules for determining the principal activity of a statistical unit are set out above.

There are, however, certain economic processes and phenomena which need to be defined clearly if statistical units are to be treated in a uniform way. These definitions feature in this section.

Vertical integration

Vertical integration of activities occurs where the different stages of production are carried out in succession by the same unit and where the output of one process serves as input to the next, for example, tree felling combined with saw milling, a clay pit combined with a brickworks, production of synthetic fibres associated with a textile mill.

A unit with a vertically integrated chain of activities should generally be classified to the activity that contributes most to the value added of the goods or services produced. However, for practical reasons of data availability, it is often the final output that is decisive.

Horizontal integration

The approach above applies also in the special case of horizontally integrated units, i.e. units where several types of activities are carried out simultaneously using the same factors of production but cannot be segregated into separate statistical units (for example, manufacture of bakery products combined with manufacture of chocolate confectionery).

Activities undertaken on a fee or contract basis Work based on plans

Units carrying out an activity on a fee or contract basis are classified with units producing the same goods or services on their own account. There are two basic types:

Work based on plans, where the contractor provides the subcontractor with all the technical specifications required for the production of the product he has ordered. This situation is found, in particular, in the metals sector (forging, cutting, stamping and foundry work);

Work done to order

Work done to order, where the subcontractor carries out a special process on an object provided by the contractor. The object can be anything from raw material to a machined mechanical part. The operation may involve processing metals (chrome plating), preparation of fruit for canning, etc.

Converters

Converters are units which sell goods and services under their own name, but arrange for their production by others. These units are classified to Sector G (wholesale and retail) **except** when they own the legal right and the concept, in which case they are classified as if they produce the goods themselves.

On-site installation and assembly

Units principally engaged in the installation or assembly of any items or equipment necessary for a building to function as such are classified to construction (division 45). This covers such items as heating and ventilation equipment, lifts and escalators, electricity, gas and water

supply, windows, doors, etc.

Installation and assembly normally also includes start-up services, including all work necessary to ensure trouble-free operation on site, any basic instruction of the operatives and maintenance of the equipment.

Installation that is performed as a service incidental to the sale of equipment, for example, the installation of domestic electrical equipment by the retailer, is an associated activity and is classified in the same way as the main activity.

Repair and maintenance

Units that repair, maintain or overhaul equipment are classified to the same class as the units that produce it except that:

- units that repair or maintain motor vehicles and motorcycles are classified to groups 50.2 and 50.4 respectively,
- units that repair personal and household goods are classified to group 52.7,
- units that repair or maintain domestic central heating boilers and burners are classified to class 45.33,
- units that repair or maintain computers and office equipment are classified to group 72.5.

Sector specific rules and definitions

Section G: Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods

Definition of trade

In NACE Rev. 1.1, wholesale and retail trade comprises all units whose principal economic activity involves purchasing transportable goods and reselling them and/or acting as an agent between sellers and buyers of goods. Such goods are subject only to handling and packaging; they are not transformed in any substantial way.

Wholesale and retail trade comprises not only direct trading between two parties, but also that arranged on behalf of one or more third parties. It is, however, essential that the main activity should be that of trading products that have not been altered more than as is customary by the seller.

“Customary handling”

Handling that is customary in trade does not affect the basic character of the merchandise and may include, for example, sorting, separating, mixing and packaging.

In wholesale trade, there are a number of branches of economic activity where the handling customary in trade is of considerable importance. A typical example is the repackaging of products before delivery to the retailer.

Also included are services in support of the sale of products such as the delivery and installation of electrical appliances.

Commission trade and wholesale trade are combined in one division in NACE Rev. 1.1. The commission trade classes form one group (51.1), while the wholesale trade classes are allocated to six groups (51.2-51.7). A separate division comprises retail trade, within which there are six groups for different aspects of retail trade and an additional one for the repair of personal and household goods. The motor vehicles trade, together with the maintenance and repair of motor vehicles and the retail sale of automotive fuel, forms division 50.

Commission trade

Definition

Group 51.1, wholesale commission trade, comprises all units whose principal activity is trading goods on behalf of third parties. They may be commercial agents or brokers or trading associations conducting transactions on third party account, but retail commission trade is not shown separately; it is classified to the relevant class of division 52.

Wholesale trade

Definition

The wholesale trade groups comprise all units whose economic activity consists primarily in reselling merchandise in their own name to retailers, industrial, commercial, institutional or professional users or to other wholesalers.

Wholesale trade is classified only by the range of products. Other criteria are not taken into account, for example, whether it is domestic wholesale trade, or import and/or export trade.

Retail trade

Definition

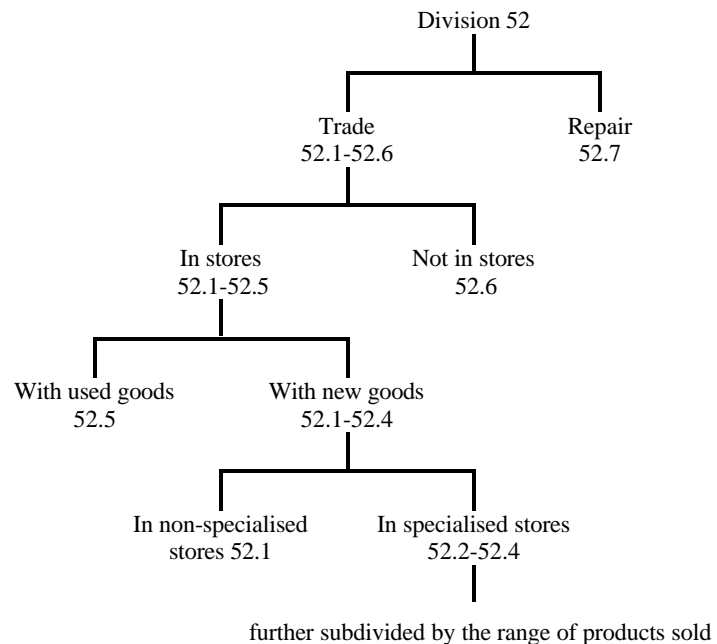
The retail trade groups 52.1 to 52.6 of NACE Rev. 1.1 comprise all units whose economic activity consists primarily in selling goods on own or third party account predominantly to households.

Retail trade is mostly carried out in premises accessible to anyone. There are, however, other forms of retail activity such as mail, telephone or internet order selling, trading from mobile vehicles and from temporary locations and repository services.

How to classify within trade

Retail trade is classified first by type of sale outlet (retail trade in stores: groups 52.1 to 52.5; retail trade not in stores: group 52.6). Retail trade in stores is further subdivided into retail sale of new goods (groups 52.1 to 52.4) and retail sale of used goods (group 52.5). For retail sale of new goods in stores there exists a further distinction between specialised retail sale (groups 52.2 to 52.4) and non-specialised retail sale (group 52.1). Specialised retail sale of new goods in stores is further subdivided by the range of products sold. The above-mentioned aggregations of groups have to be considered as additional levels and have to be applied when using the top down method.

The decision tree



Kind of service

No attempt is made to reflect other possible aspects of retail activity such as the kind of service (e.g. traditional service or self-service), outlets run by voluntary services or purchasing associations or to distinguish between cooperative and other retail trade.

Units whose main activity in terms of value added is obviously retail trade from shop premises have to be allocated to one of the classes 52.11 to 52.50. Having determined the range of products sold by the individual units, allocation should be made according to the following rules:

Only one class

If the products sold comprise exclusively those of one NACE Rev. 1.1 class, allocation is obviously to that class. Example: A unit sells only beverages on its shop premises. The unit is wholly allocated to class 52.25.

Several classes, one has 50%

If the products sold comprise commodities of several NACE Rev. 1.1 classes, determine whether any one of these classes accounts for a share of 50% or more in terms of value added. In this case the unit should be allocated to that class.

Examples:(a)	52.41 - 20%	b)	52.21 - 10%
	52.42 - 30%		52.24 - 10%
	52.43 - 50%		52.25 - 10%
			52.33 - 15%
			52.41 - 55%
	Allocation to 52.43		Allocation to 52.41;

Several classes, none has 50%

If the products sold comprise several NACE Rev. 1.1 classes, none of which accounts for a share of 50% or more in terms of value added, further analysis is necessary to establish the relevant allocation. For this the top down method has to be used by considering the additional levels mentioned above.

52.42	-	25%	52.42	-	15%	52.42	-	5%
52.43	-	10%	52.43	-	20%	52.43	-	10%
52.50	-	40%	52.50	-	25%	52.50	-	40%
52.62	-	25%	52.62	-	40%	52.62	-	45%
			Allocation to 52.50		Allocation to 52.43			Allocation to 52.50

Specialised/non-specialised

When choosing between specialised retail trade 52.2 – 52.4 and non-specialised retail trade 52.1 the outcome will depend on the number of NACE Rev. 1.1 classes involved, irrespective of the group level importance.

Up to four classes

If the products sold comprise up to four classes of NACE Rev. 1.1 groups 52.2 and/or 52.3 and/or 52.4, none of which accounts for a share of 50% or more in terms of value added, but each represents 5% or more of value added, a specialised trade is still involved. It is then necessary only to determine the focus of the activities on the basis of value added. The main activity, selecting first the main group and then the class within that group, will then determine the allocation.

52.21	-	30%	52.21	-	30%	52.21	-	20%
52.22	-	5%	52.22	-	15%	52.22	-	5%
52.31	-	45%	52.31	-	40%	52.31	-	35%
52.43	-	20%	52.43	-	15%	52.43	-	40%
			Allocation to 52.31		Allocation to 52.21			Allocation to 52.43

Five or more

If the products sold comprise five or more classes of groups 52.2, 52.3 and 52.4, each representing 5% or more of value added, but none of which accounts for a share of 50% or more, this should be classified as a non-specialised store and allocated to group 52.1. If food, beverages and tobacco represent at least 35% of value added, allocation will be made to NACE Rev. 1.1 class 52.11. In all other cases allocation should be to class 52.12.

52.21	-	5%	52.21	-	20%	52.21	-	5%
52.22	-	10%	52.22	-	15%	52.22	-	5%
52.31	-	15%	52.31	-	10%	52.31	-	40%
52.33	-	25%	52.33	-	10%	52.33	-	40%
52.44	-	45%	52.44	-	45%	52.44	-	10%
			Allocation to 52.12		Allocation to 52.11			Allocation to 52.12

Note: The allocation rules are always based on the retail activity of the unit. If, in addition to its retail trade, a unit has a secondary activity which also provides services or produces goods, the allocation of the unit to the appropriate class of division 52 is determined only by the composition of its retail activity.

Section L: Public administration

The classification criteria used in the private sector are – by analogy – applied to government

bodies. Consequently not all government bodies are classified to Section L. Units carrying out activities at the national, regional or local levels that are specifically attributable to other areas of NACE Rev. 1.1 are classified in the appropriate section (for example, education in Section M, health and social work in Section N) rather than in Section L «Public administration and defence; compulsory social security».

For example, a higher education establishment administered by central or local government is allocated to class 80.30 and a hospital similarly administered is allocated to class 85.11.

Division 95

Class 95.00 includes only the activities of private households employing domestic personnel. The result of this activity is considered production by the national accounts system, and for this purpose and for certain surveys this class has been included in NACE Rev. 1.1. The domestic personnel themselves are not to be classified in class 95.00.

Divisions 96 and 97

Based on ISIC Rev.3.1, two new divisions were included in NACE Rev. 1.1 (division 96 Undifferentiated goods-producing activities of private households for own use and division 97 Undifferentiated service-producing activities of private households for own use) in order to cover all production activities, even if only done by private households for their own use.

Hence, these divisions would normally not be relevant in business statistics, but in data collections covering household and subsistence activities.

Changes in the classification of units

Units can change their principal activity either at once or gradually over a period of time. The principal activity may change within the year from one statistical period to the next, either because of seasonal factors or because of a management decision to vary the pattern of output. In each case there will have been a fairly sudden change in the balance of activities. Also, a change in the pattern of output or sales may take place gradually over several years. While all these cases call for the classification of the unit to be changed, too frequent changes distort the statistics to the extent of making interpretation extremely difficult.

Stability rule

To avoid frequent changes it is necessary to have a stability rule. Without such a rule there would be apparent changes in the economic demography of the business population which would be no more than statistical artefacts. The working rule is that the secondary activity should exceed the activity to which the unit is classified for two years before the classification is changed.

Changes in the classification of units for the purpose of statistical inquiries are made not more than once a year, either at fixed dates or as the information becomes available. More frequent changes would result in inconsistency between short term (monthly and quarterly) and longer term statistics.

Glossary

This glossary gives a further description of some of the terms used throughout the NACE Rev. 1.1 Introduction and Explanatory Notes. Every attempt has been made to ensure that the descriptions are consistent with the definitions of the terms when used elsewhere, but these descriptions are not intended to give all-purpose definitive meanings of the words. The purpose of this glossary is merely to help the user of NACE Rev. 1.1 to interpret it correctly.

Certain terms do not translate into all Community languages and in such cases they are omitted from the version in that language.

By-products

An exclusive by-product is a product technologically linked to the production of other products in the same group, but which is not produced in any other group (for example, molasses linked to the production of sugar). Exclusive by-products are used as inputs for the manufacture of other products.

An ordinary by-product (i.e. a by-product which is not exclusive to a single group) is a product technologically linked to the production of other products, but which is produced in several groups (for example, the hydrogen produced during petroleum refining is technologically linked to that produced in petrochemical manufacture and coal carbonization and identical to that produced in the group comprising other basic chemical products).

Capital goods

Capital goods are goods, other than material inputs and fuel, used for the production of other goods and/or services. They include factory buildings, machinery, locomotives, lorries and tractors. Land is not usually regarded as a capital good.

Commodity

A commodity is a transportable good that may be exchanged. It may be one of a run from a production line, a unique item (Mona Lisa) or the material medium for a service (software diskette). This is the concept used for customs classifications.

Industrial process

A transformation process (whether physical, chemical, manual or whatever) used in the manufacture of new products (whether consumer, intermediate or investment goods), in the processing of used products or in the provision of services to industry as defined in Sections C (extractive industries), D (manufacturing industry), E (production and distribution of electricity, gas and water) and F (construction industry).

**Machinery:
domestic or
household**

Machinery and equipment of a type designed principally for use by private households, for example, household washing machines.

**Machinery:
industrial**

Machinery and equipment of a type designed principally for use in non-domestic premises, for example, machine tools, laundry-type washing machines.

**Manufacturing
industry**

All activities included within Section D. Both cottage industry and large-scale activities are included. It should be noted that the use of heavy plant or machinery is not exclusive to Section D.

Product

A product is the outcome of economic activity. It is the generic term applied to goods and services.

Finished product

Products for which processing have been completed.

**Semi-finished
product**

Products that have undergone some processing but require further processing before they are ready for use. They may be sold to other manufacturers for further processing. Typical examples would include rough metal castings sold for finishing elsewhere.

Production

Production is an activity resulting in a product. It is used with reference to the whole range of economic activities. The term is not reserved for the agricultural, mining or manufacturing sectors. It is also used in relation to the service sector. More specific terms may be used to denote production: provision of services, processing, manufacturing, etc., depending on the branch of activity. Production may be measured in various ways either in physical terms or according to value.

Transformation

Transformation is a process that modifies the nature, composition or form of raw materials, semi-finished or finished products for the purpose of obtaining new products.

Treatment

A process that is carried out, inter alia, for the purpose of protecting certain products, for giving them certain properties or for preventing any harmful effects that might otherwise result from their use. Examples are the treatment of crops, wood, metals and waste.

Value added

The gross value added is the value of gross output less the cost of material and other intermediate inputs.