



Urban Audit Glossary

(Compilation of variable definitions)

version of June 2007

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Asta MANNINEN, of City of Helsinki – Department Urban Facts
Denise PUMAIN, CNRS, University Paris I Panthéon-Sorbonne
Risto LEHTONEN, University of Jyväskylä
Klaus TRUTZEL, Bureau of Statistics and Urban Research of the City of Nuremberg
Willibald CROI, Landsis g.e.i.e.

Introductory Remarks

This document is an important complement to the list of Urban Audit variables. A similar document was distributed at the last Urban Audit data collection round in 2003, and the good practice should be kept. By supplying the data suppliers with clear and **harmonised definitions**, it tries to contribute to the production of **comparable data**. Please read this glossary carefully, and make the utmost effort to apply the foreseen definitions to your data.

The glossary has been compiled by Teodora Brandmüller of Eurostat unit D2, with the help of many experts inside and outside of the Commission. The document remains under the overall responsibility of Eurostat.

The glossary is in a way never final, it undergoes permanent improvements. In other words, the text will be further updated at regular intervals to consistently enhance its accuracy. For this process, your comments are highly welcome.

The glossary includes hyperlinks to documents stored in CIRCA in the library of the Urban Statistics Interest Group. If you can not access the document through the hyperlink¹ then sign in to CIRCA's Urban Statistics Interest Group. You will find all documents in the "glossary" folder.

<http://forum.europa.eu.int/Members/irc/dsis/urbstat/library>

Variables that are new in the 2006/2007 collection are highlighted in yellow.

Variables to be collected centrally from databases available for Eurostat are written in *italic*.

Please note: If **other definitions** of the variables are used in exceptional cases, since the compliant data are not available and estimates are not possible, this is to be specifically mentioned in the free-text column of the data template (=footnote).

1) URLs used on the CIRCA site are unfortunately not stable.

General terminology and flags

The Urban Audit flags are part of the mandatory data package which NSIs send to Eurostat. There is always a “source” and a “statistical basis”, so at least two flags are always present.

Data source

N	Data collected by (National or Regional) Statistical Office
S	Data collected by city
M	Data collected by others (private organisations)

Only one (major) source should be specified. Hence it is not permitted to indicate both S and M for the same data point. The source should always be the institution responsible for the collection or basic compilation of the data (= as close as possible to the data source).

Examples: if the NSI transmits data collected by an airport, the source is M (=other), not N (NSI). If population data of sub-city districts, collected by the city, are adjusted to the population data of the NSI, the source is still S (city data), and an additional “E” (estimation) would be appropriate.

Government bodies like ministries or central banks or even libraries should be classified as “N” (Statistical Office), as long as they act as part of the official statistical system of the country.

In federal countries, the regional statistical offices are treated equally with the national or federal statistical office.

Statistical basis

A	Census (or exhaustive survey)
G	Sample basis

W	Register (secondary statistics)
E	Modelling / estimation

This part of our Urban Audit flags is quite complex! Information should be given to the user about three different aspects of the statistical base:

- How is the representativity of the data?
- Are we confronted with primary or secondary data?
- Is the data point identical to the source information or has it been “manipulated” in order to comply with a required definition?

- 1) The first two flags A and G give information about the representativity of the data. So only one of them should be specified, in other words a data point is either from a census or exhaustive data collection (A), or it is based on a sample (G).
- 2) The register information W gives information if a data set comes from a secondary data collection (flagged as W) or from a primary (direct) data collection, in which case no flag is given.

Example: The number of enterprises in a city is taken directly from an exhaustive survey in a census year. This data is flagged with A. Alternatively, the number of enterprises is taken from the exhaustive business register. Then the flag should be AW.

- 3) Finally, an estimation of modelling procedure can be indicated in addition with an E.

Example: for unemployment figures, the registered unemployed are used as a base, adjusted to the LFS definition of unemployed. Here the statistical base is AW (comprehensive register), not G for the LFS sample, as the LFS results are just used for adjustment of the unemployment figures. An additional “E” (estimation) would be appropriate.

Definition of different survey types

Survey: refers to any kind of collection of primary information on a situation or population regardless of the method applied. Basically, the broad concept "survey" refers to a combination of data collection modes and the coverage of the data with respect to the target population. We have drafted a simple schematic presentation of different survey types with examples covering sample surveys and census surveys with direct (e.g. interview) or indirect (register-based) data collection or a mixed mode data collection, perhaps clarifying the terminology and concepts. See the table below.

Census = an exhaustive survey covering the whole of the target population (examples being the Population Census, the Agricultural Census and the Business Census). It requires significant organisation and planning over the course of several years. Census questionnaires either tend to be posted to respondents or presented and completed by a trained surveyor visiting the respondent. Typically, a Census is conducted every 5 or 10 years rather than annually (although this is not always the case). In some countries (e.g. France, UK, USA) the Population Census can have a “long form” which is handed out to a sample of the population. This is not to be treated as a Census because it is a sample within the Census and its results have a sampling error. For the Urban Audit database, where Sample Surveys are the source of data, they are denoted by a “G” flag.

An **exhaustive survey** is not really a census, but similar to a census because it is total, so it should be classified as “A”. Population figures for a year that is not a census year are tricky: The statistical base is the census, but the data is updated by register information on births, deaths and changes of domicile. The correct flag should be “AE”.

Sample basis = a survey of a sample of the total target population. A sample survey can be repeated much more often than a Census because it costs less. Typical examples of sample surveys include the Labour Force Survey, the Price Index Survey and the Farm Structure Survey.

Registers

"Register" is a database which is updated continuously. In the Urban Audit we refer to registers used for statistical production. Registers used mainly for administrative purposes, but where statistics is a by-product, are also flagged W (register). The reason behind is that some countries use registers very much to produce local statistics. The register can be national or local (municipal). For entrepreneurial or institutional registers, they should only be classified as register if these registers are used directly for statistical production. Examples: the number of air passengers, overnight stays in hotels, number of theatre visitors come from local registers and are to be classified as W.

The concepts "estimation" and "modelling"

Modelling/estimation = estimation: refers to the calculation of statistics or estimates (means, proportions, percentages, totals, regression coefficients etc.) using a mathematical formula (estimator) applied to the available data. If the data are from a sample survey then the estimation is affected by random variation or sampling error due to sampling.

The word "estimation" refers to the calculation of statistics (means, proportions, percentages, totals, regression coefficients etc.) using a mathematic formula (estimator) applied to the available source data.²

When using sample survey data in an estimation, modelling can be used to incorporate other (auxiliary) data in the estimation procedure to improve the accuracy of estimation.³

A schematic presentation of different survey types by data collection mode and the coverage with respect to the target population

	Coverage with respect to target population
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- 2) If the data are from a sample survey then the estimation is affected by random variation or sampling error due to sampling. The sampling error is measured by the standard error of an estimate. If the data are from a census survey then there is no sampling variation and the sampling error measured by the standard error is zero by definition. But in both a sample survey and a census survey there can be other sources of errors such as measurement errors and errors due to non-response and non-coverage etc. These sources of errors are often adjusted for by using appropriate statistical techniques (re-weighting, imputation, modelling).
- 3) This is often accomplished by using specific estimators such as the generalized regression estimator, which incorporates the auxiliary data into the estimation procedure by using a regression model. So, modelling can be built in an estimation procedure. A typical example of a model is a linear regression model, but more complex models are often used for example in small-area estimation. The approach (called model-assisted estimation) is very commonly used in (advanced) national statistical agencies for example for the estimation of the total number of unemployed and unemployment rate in a labour force survey. When using this approach, certain special statistical software is often used. Modelling can also play an important role as such in Official statistics production, as for example in forecasting applications (for example time series modelling using census survey data).

Data collection mode	A. Partial coverage: Sample survey	B. Full coverage: Census survey
1. DIRECT DATA COLLECTION (PRIMARY) Interview survey Mode examples: <ul style="list-style-type: none"> - Computer Assisted Personal Interview (CAPI) - Computer-Assisted Telephone Interview (CATI) - Computer-Assisted Self-Interview (CASI) - Paper-and-pencil Interview (PAPI) Mail survey Internet survey, Web survey, Web panel, eSurvey	CASE 1A. Sample survey using direct data collection mode; FLAG = G This survey type is a traditional one. EXAMPLES of CASE 1A <ul style="list-style-type: none"> - Microcensus - Labour Force Survey LFS - European Community Household Panel ECHP - Statistics on Income and Living Conditions EU-SILC - Household Budget Survey HBS 	CASE 1B. Full-coverage census survey using direct data collection mode; FLAG = A This survey type is a traditional one. EXAMPLE of CASE 1B <ul style="list-style-type: none"> - Population Census covering the whole population with direct data collection using short form (census) and long form (sample) questionnaires
2. INDIRECT DATA COLLECTION (SECONDARY) Data source: Register <ul style="list-style-type: none"> - Full coverage of the relevant target population - Continuous updating Administrative register <ul style="list-style-type: none"> - By-product of an administrative procedure Statistical register <ul style="list-style-type: none"> - Compiled by a statistical agency 	CASE 2A. Administrative register with partial coverage of the relevant target population FLAG = GW This survey type is seldom met in practice.	CASE 2B. Full-coverage census survey using data compiled from administrative and/or statistical registers FLAG = AW This survey type is becoming increasingly popular in the scope of Official statistics. EXAMPLES of CASE 2B <ul style="list-style-type: none"> - Register-based Population Census - Business Register - Taxation register - Claimant count register - Register on the use of social security benefits - Register of old-age pensioners
3. MIXED-MODE DATA COLLECTION Data source: Combination of direct and indirect data collection modes	CASE 3A. Sample survey using micro-merged interview data and register data; FLAG = GW This survey type is becoming increasingly popular in the scope of Official statistics.	

Restrictions concerning the data

C	Confidential data, restriction on use
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P	Provisional data
U	Unreliable data
B	Break in the time series

Please note

The C and U flags suppress the corresponding data from dissemination on Eurostat's web site. In the interest of our clients / users, its usage should be minimised as much as possible.

Ad hoc manipulation of data at the NSI

In one example, "life expectancy" is available for men and for women separately at the city level, but the life expectancy for both sexes combined is not available. If the NSI makes a simple average of male life expectancy and female life expectancy, it might not be correct on the 3rd decimal, but it is an "estimate" that is not completely wrong. Because it is a simple ad hoc solution, the flag "U" unreliable might be used. But this is not desirable, as it will suppress the figure from dissemination. It would be better to use an "I" footnote and say it is a simple average of the life expectancy of men and women, not considering the detailed age distributions of the death risks. In any case it is an "E" estimate (See "Statistical Basis" above).

Footnote

I	Free-format text (footnote) available
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The flag I indicates that a footnote with free format text is available. The free text can not be too long, 255 characters is the absolute maximum. Certain characters must be avoided, like comma, stroke or quotes (, / " ").

It is not mandatory to use the "I" flag, on the contrary: Eurostat prefers that the flag "I" is used sparingly, i.e. only when it is absolutely necessary to explain an exception or a deviation. Eurostat has to put all the explanations into the urban database and the volume can be very big if there are "excessive" footnotes.

Sometimes NSIs put only an "I" in the flag column and the text "data not available" or "n.a." in the free-text column. This enlarges the database without further information and should be avoided. Eurostat deletes these cells.

Demography (DE)

Population (DE1)

Code	Variable	spatial unit	New	LCA
DE1001V	Total Resident Population	C, L, S, N		✓
DE1002V	Male Resident Population	C, L, S, N		
DE1003V	Female Resident Population	C, L, S, N		
DE1067V	Total Resident Population 0-2	C, L, N	x	
DE1068V	Male Resident Population 0-2	C, L, N	x	
DE1069V	Female Resident Population 0-2	C, L, N	x	
DE1070V	Total Resident Population 3-4	C, L, N	x	
DE1071V	Male Resident Population 3-4	C, L, N	x	
DE1072V	Female Resident Population 3-4	C, L, N	x	
DE1040V	Total Resident Population 0-4	C, L, S, N		✓
DE1041V	Male Resident Population 0-4	C, L, N		
DE1042V	Female Resident Population 0-4	C, L, N		
DE1043V	Total Resident Population 5-14	C, L, S, N		✓
DE1044V	Male Resident Population 5-14	C, L, N		
DE1045V	Female Resident Population 5-14	C, L, N		
DE1046V	Total Resident Population 15-19	C, L, S, N		✓
DE1047V	Male Resident Population 15-19	C, L, N		
DE1048V	Female Resident Population 15-19	C, L, N		
DE1049V	Total Resident Population 20-24	C, L, S, N		✓
DE1050V	Male Resident Population 20-24	C, L, N		
DE1051V	Female Resident Population 20-24	C, L, S, N		
DE1052V	Total Resident Population 25-54	C, L, S, N		✓
DE1053V	Male Resident Population 25-54	C, L, N		
DE1054V	Female Resident Population 25-54	C, L, N		
DE1058V	Total Resident Population 25-34	C, L, N	x	✓
DE1059V	Male Resident Population 25-34	C, L, N	x	
DE1060V	Female Resident Population 25-34	C, L, N	x	
DE1061V	Total Resident Population 35-44	C, L, N	x	✓
DE1062V	Male Resident Population 35-44	C, L, N	x	
DE1063V	Female Resident Population 35-44	C, L, N	x	
DE1064V	Total Resident Population 45-54	C, L, N	x	✓
DE1065V	Male Resident Population 45-54	C, L, N	x	
DE1066V	Female Resident Population 45-54	C, L, N	x	
DE1025V	Total Resident Population 55-64	C, L, S, N		✓
DE1026V	Male Resident Population 55-64	C, L, N		
DE1027V	Female Resident Population 55-64	C, L, N		
DE1028V	Total Resident Population 65-74	C, L, S, N		✓
DE1029V	Male Resident Population 65-74	C, L, N		
DE1030V	Female Resident Population 65-74	C, L, N		
DE1055V	Total Resident Population 75 and over	C, L, S, N		✓
DE1056V	Male Resident Population 75 and over	C, L, N		
DE1057V	Female Resident Population 75 and over	C, L, N		

Population: total usually resident population is defined as the count of all persons recorded as resident in households in an area even if they were present elsewhere on Census night, plus residents in communal establishments who were present in the establishment on Census night. This will include all persons, national or foreign, who are permanently settled (i.e. resident one year or more) in the (urban) area. [UN-ECE and Eurostat 1998: Recommendations for the 2000 Censuses of Population and Housing in the ECE Region](#).

It is stressed that this population number is the **reference** for measuring the **general size of the urban entity** within the specified boundaries of the administrative city, the Larger Urban Zone and the Sub-City District. It is the denominator for most derived indicators.

In some countries (e.g. Ireland) the Census counts the “de facto” population, meaning the population present on Census night that is not necessarily registered (=“de jure”) as required in the above definition. This might disturb comparability in towns with certain institutions, i.e. big hospitals, military barracks, prisons, where people are gathered in unusual concentrations. A database flag in municipalities with such unusual concentrations should help users avoid any wrong conclusions. For the years between the Populations Censuses, a first solution for deriving data is to base it on data from the population register or to make estimates based on the registration of births, deaths, and migration. A second solution is to use interpolation between the Census years. If the births and deaths are given, then interpolation will be restricted to (unknown) migration.

Residents: persons living within the specified spatial unit

Age: for many variables, there are age thresholds (population groupings; single parent households; households with children; pensioner households). Current practice or the legal frameworks in many Member States differ. If these national differences were applied, then the resulting statistics would not be comparable. It is for this reason that the Census age bands are requested here, even if it might contradict national practices.

Reference date for population data: to enable better comparability 1st January estimates for all years are provided. Most countries use this date as a reference date.

Nationality (DE2)

Code	Variable	spatial unit	New	LCA
DE2001V	Residents who are Nationals	C, L, S, N		✓
DE2002V	Residents who are Nationals of other EU Member State	C, L, S, N		✓
DE2003V	Residents who are not EU Nationals	C, L, S, N		✓
DE2005V	Residents who are not EU Nationals and citizens of a country with high HDI	C, L, S, N	✗	
DE2006V	Residents who are not EU Nationals and citizens of a country with a medium or low HDI	C, L, S, N	✗	
DE2004V	Nationals born abroad	C, L, S, N		

Nationals: citizen of the country in which the city is located; this does not necessarily mean that they are born there (based on citizenship in a country, *UN 1980*).

Non EU Member States should not include their own citizens in the figures for DE2003V, DE2005V and DE2006V.

EU nationals: citizens of other EU countries (1st of January 2005 definition, i.e. 25 Member States) The concept of EU25 should be used for the 2001 data as well in case of DE2005V and DE2006V.

Nationals born abroad: citizens of the country in which the city is located, but born abroad in another EU/non EU country.

For countries without this information (for example the UK), available ethnicity data is used as a proxy, with a comment regarding the definition. In other countries (e.g. Portugal), data on the place of birth is used for estimation.

Human Development Index (HDI): The UN Human Development Index (HDI) is a comparative measure of poverty, literacy, education, life expectancy, childbirth, and other factors for countries worldwide. It is a standard means of measuring well-being, especially child welfare. The index was developed in 1990, and has been used since 1993 by the United Nations Development Programme in its annual report. The HDI measures the average achievements in a country in three basic dimensions of human development:

- A long and healthy life, as measured by life expectancy at birth.
- Knowledge, as measured by the adult literacy rate (with two-thirds weight) and the combined primary, secondary, and tertiary gross enrolment ratio (with one-third weight).
- A decent standard of living, as measured by gross domestic product (GDP) per capita at purchasing power parity (PPP) in USD.

See <http://en.wikipedia.org/wiki/HDI> or the appropriate Wikipedia page in your language for further information.

Non-EU countries with a high HDI

Antigua and Barbuda	Croatia	Qatar
Argentina	Cuba	Saint Kitts and Nevis
Australia	Hong Kong, China (SAR)	Seychelles
Bahamas	Iceland	Singapore
Bahrain	Israel	Switzerland
Barbados	Japan	Trinidad and Tobago
Brunei Darussalam	Korea, Rep. of	United Arab Emirates
Bulgaria	Kuwait	United States
Canada	Mexico	Uruguay
Chile	New Zealand	
Costa Rica	Norway	

Source: http://hdr.undp.org/docs/statistics/indices/index_tables.pdf

Non-EU countries with a medium or low HDI

All other non-EU countries.

Household Structure (DE3)

Code	Variable	spatial unit	New	LCA
DE3001V	Total Number of Private Households	C, L, S, N		✓
DE3017V	Total Resident Population living in households (excluding institutional households)	C, L, S, N	✗	
DE3002V	One person households	C, L, S, N		
DE3005V	Lone parent households (with children aged 0 to under 18)	C, L, S, N		
DE3008V	Lone pensioner (above retirement age) households Total	C, L, S, N		
DE3009V	Lone pensioner (above retirement age) households Male	C, L, N		
DE3010V	Lone pensioner (above retirement age) households Female	C, L, N		
DE3011V	Households with children aged under 18	C, L, N		✓
DE3012V	Nationals that have moved into the city during the last two years	C		
DE3013V	EU Nationals that have moved into the city during the last two years (stock)	C		
DE3014V	Non-EU Nationals that have moved into the city during the last two years (stock)	C		
DE3015V	Number of "moves" into the city during the last two years (flow)	C	✗	
DE3016V	Number of "moves" out of the city during the last two years (flow)	C	✗	

Private household

Countries use different concepts of the private household. In the Urban Audit, in order to enable the extensive use of registers, we choose to use the household-dwelling concept.

The recommendation for the 2010 census states that the 'housekeeping unit' concept should be used. However this concept requires non-register based census data which will not be available now. Therefore the house-dwelling concept was selected. Whether a country uses the 'housekeeping unit' or the 'household-dwelling' concept of a household has generally little implication for the total number of private households. However, differences can be large for certain household types, for example for one-person households. In view of international comparability it is therefore recommended that countries that use the 'housekeeping unit' concept, if possible, make an estimate of the number of private households according to the 'household-dwelling' concept, and break this number down by household size.

The household-dwelling concept considers all persons living in a housing unit to be members of the same household, such that there is one household per occupied housing unit. In the household-dwelling concept, then, the number of occupied housing units and the number of households occupying them are equal, and the locations of the housing units and households are identical.

(UN ECE Conference of European Statisticians Recommendations for the 2010 Censuses of Population and Housing)

Households should only be generated if the respective housing unit is the usual (or legal main) residence of at least one occupant. Only persons with main residence in a housing unit should be included in the generation of the household defined by this housing unit.

Private households are broken down into the following groups:

- Non-family households
- One family households
- Two or more families' households.

Lone (single) parent household: a one family household with only one adult and at least one child under 18 years old. It should be noted that the adult is not necessarily a biological parent but an adult of the family nucleus. ([*Guidelines and Table programme for the Community Programme of Population and Housing Censuses in 2001 Volume II: Table Programme \(3/1999/E/no 10\)*](#))

Lone pensioner household: single person household where that person has retired from work and – in the normal case – reached the national retirement age. As the national retirement age varies in different countries, the emphasis is put on the fact that these persons will not work anymore. Persons to be counted have worked earlier, so persons that never worked, for example due to a handicap and persons receiving unemployment benefits are not included. Persons that supplement their pension with earnings from other sources (short-term tasks or others) should also be included.

Households with children aged under 18: a private household (one family households or two or more families households) with one or more adults (over 18 years old) and at least one child (under 18 years old).

Nationals, EU nationals and non-EU nationals that have moved into the city: all persons are included, whether coming from abroad or from within the country. All persons that moved into the city during the last two years are considered, even if they have left again afterwards, since counting only those who stayed might be very difficult.

Non EU Member States should not include their own citizens in the figures for DE3014V.

Number of "moves" into/out of the city: This variable supplements the information gained from DE3012-4V. The difference lies in the flow approach. If someone moved in and out of the city two times during the past two years it should be considered as two moves into the city (flow) but one person (stock) who moved into the city.

Social Aspects (SA)

Housing (SA1)

Code	Variable	spatial unit	New	LCA
SA1001V	Number of conventional dwellings	C, L, S, N		✓
SA1004V	Number of houses	C, L, N		
SA1005V	Number of apartments	C, L, N		
SA1007V	Number of households living in houses	C, L, N		
SA1008V	Number of households living in apartments	C, L, N		
SA1011V	Households owning their own dwelling	C, L, N		✓
SA1012V	Households in social housing	C, L, S, N		
SA1013V	Households in private rented housing	C, L, N		
SA1027V	Number of roofless persons	C, N	×	
SA1029V	Number of people in accommodation for the homeless	C, N	×	
SA1031V	Number of people in Women's Shelter	C, N	×	
SA1030V	Number of people in accommodation for immigrants	C, N	×	
SA1016V	Average price for an apartment per m2	C, L, N		
SA1023V	Average price for a house per m2	C, L, N		
SA1049V	Average annual rent for housing per m2	C, L, N	×	
SA1018V	Dwellings lacking basic amenities	C, L, S, N		
SA1019V	Average occupancy per occupied dwelling	C, L, N		
SA1025V	Empty conventional dwellings	C, L, N		
SA1026V	Non-conventional dwellings	C, L, N		
SA1046V	Number of overcrowded households (>1 persons in 1 room)	C, L, N	×	
SA1048V	Number of dwellings that is authorised	C, L, N	×	
SA1022V	Average area of living accommodation (m2 per person)	C, L, N		

The **household** concept used in this chapter is consistent with the private household definition given in chapter Household Structure (DE3)

Houses and apartments: correspond to the concepts of **ground-oriented residential buildings** (houses) and **other residential buildings** (apartments) as defined in [UN-ECE and Eurostat \(1999\): Recommendations for the 2000 Census of Population and Housing in the ECE Region 64](#).- Statistical Standards and Studies N° 49. The definition in paragraph 270 applies to houses and apartments (SA1004V etc.):

“A **building** is defined in this context as any independent structure containing one or more dwellings, rooms or other spaces, covered by a roof and enclosed within external walls or dividing walls which extend from the foundations to the roof, whether designed for residential or for agricultural, commercial, industrial or cultural purposes or for the provision of services. Thus a building may be a detached dwelling, **apartment** building, factory, shop, warehouse, garage, barn, etc. [...]

A **conventional dwelling** (SA1001V) is defined as a room or suite of rooms and its accessories (e.g. lobbies, corridors) in a permanent building or structurally separated part thereof which by the way it has been built, rebuilt or converted is designed for

habitation by one private household all the year round and is not at the time of the Census used wholly for non-residential purposes. It should have separate access to the street, direct or via a garden or grounds, or to a common space within the building (staircase, passage, gallery, etc.), but it need not necessarily have a bathroom or toilet available for the exclusive use of its occupants. A “permanent building” is one which was constructed to be structurally stable for at least ten years, but some countries may wish to define permanence instead in terms of the method of construction or in terms of the building materials used in the country. Detached rooms for habitation which are clearly designed to be used as part of the dwelling should be included, e.g. a room or rooms above a detached garage. A conventional dwelling is counted for Census purposes whether or not it is occupied, although some topics and consequently some parts of the tabulation programme apply only to occupied conventional dwellings. Conventional dwellings could be occupied dwellings, dwellings reserved for seasonal or secondary use but fit for habitation all the year round or vacant dwellings (i.e. dwellings which have no usual residents at the time of the census but are available to become the usual residence of at least one person). Collective living quarters (hotels, institutions and camps) are excluded from conventional dwellings.

Non-conventional Dwelling: mobile or semi-permanent or improvised housing units and collective living quarters such as hotels, institutions or camps. The international UN definition 234/237 (see annex) applies for Non-conventional Dwellings (SA1026V):

Some housing units do not come fully within the definition of a conventional dwelling because they are **mobile** or **semi-permanent** or **improvised** or are not actually designed for human habitation, but which are used at the time of the Census as the principal usual residence of one or more persons who are members of one or more private households. All these are grouped under the term “non-conventional dwellings”, the main distinction between their treatment for Census purposes and the treatment of conventional dwellings being, first, that they are counted only if they are occupied in the sense defined above and, second, that certain Census topics do not apply to them. [...]

- (a) A mobile housing unit is any type of living accommodation which has been made to be transported (such as a tent) or which is a moving unit (such as a ship, yacht, boat, barge or caravan) and which is designed for human habitation and is occupied at the time of the Census, that is, it is somebody’s usual residence. Gypsy camps should be included in this category. Passenger quarters in means of transport such as passenger ships, railroad cars and aircraft should not be considered as housing units and the persons who happen to be travelling in them at the time of the Census should not be counted as living in these vehicles, ships or aircraft.
- (b) A semi-permanent housing unit is an independent structure such as a hut or a cabin which has been constructed with locally available crude materials such as wooden planks, sun-dried bricks, straw or any similar vegetable materials for the purpose of habitation by one private household and which is used as the usual residence of at least one person at the time of the Census. Such units may be expected to last for only a limited time, although occasionally they may last for longer periods.
- (c) Other housing units designed for habitation comprise independent, makeshift shelters or structures such as shacks and shanties which have been built of waste

materials which are used as the usual residence of at least one person at the time of the Census.

- (d) Other housing units not designed for habitation comprise premises in permanent or semi-permanent buildings such as stables, barns, mills, garages, warehouses, offices, etc. which have not been built, rebuilt, converted or arranged for human habitation but are, nevertheless, used by one or more private households as their usual residence at the time of the Census. This category also includes natural shelters such as caves which are used by one or more private households as their usual residence at the time of the Census. Premises which, although not initially designed or constructed for human habitation, have been converted for the purpose of habitation by a private household should not be included in this category, but classified to heading 1.2.2.
- (e) A hotel is a separate and independent set of premises comprising all or part of a permanent building or set of buildings which by the way it has been built, rebuilt or converted is designed to provide accommodation on a fee basis and which is used as the usual residence of at least one person at the time of the Census. Motels, inns, boarding houses, pensions, rooming houses and other lodging houses are included in this category. If the accommodation occupied by a private household residing in a hotel or similar establishment fulfils the requirements of a conventional dwelling, it should be classified as such. Otherwise it should be classified with living quarters other than housing units. Some countries may wish to consider distinguishing hotels and similar establishments as a separate category of the classification.
- (f) An institution is a separate and independent set of premises comprising all or part of a permanent building or set of buildings which by the way it has been built, rebuilt or converted is designed for habitation by a large group of persons who are subject to a common authority or regime or bound by a common objective or personal interest, and which is used as the usual residence of at least one person at the time of the Census. Such living quarters usually have certain common facilities such as cooking and toilet facilities, baths, lounge rooms or dormitories which are shared by the occupants. This category includes sets of premises such as nurses' hostels, residences for students, hospitals, sanatoria and convalescent homes, welfare institutions, monasteries, convents, military and police barracks, prisons and reformatories.
- (g) A camp is a separate and independent set of premises comprising all or part of a semi-permanent or temporary structure or set of structures which by the way it has been built, rebuilt or converted is designed for the temporary accommodation of groups of persons with common activities or interests, and which is used as the usual residence of at least one person at the time of the Census. Such living quarters usually have certain common facilities such as cooking and toilet facilities, baths, lounge rooms or dormitories which are shared by the occupants. This category includes military camps, refugee camps and camps for housing workers employed by agriculture, logging, mining, construction or other enterprises.

Housing units located on the grounds or within a building containing a hotel, institution or camp should be separately identified and counted as housing units. Those which fulfil the requirements of a conventional dwelling should be classified as such, and the others

should be classified as non- conventional dwellings." "Collective living quarters (hotels, institutions and camps) should be excluded from non-conventional dwellings."

Social housing: low cost housing provided by the municipality, a housing association or a co-operative (depending on the national legal framework). Only rented housing should be included. "Social" is a feature of the dwelling, not necessarily of the resident.

Households in Private Rented housing: housing supplied by the private sector at the market rates. It also includes housing provided by the employer in the form of job benefits/perks. If a co-operative or a public enterprise operates at market conditions, it is also included.

Household owning their own dwellings: if dwellings are in shared ownership, i.e. people pay part rent and part mortgage for their accommodation, this data is included into the ownership column with an explanation in the free-format text (footnote).

Homelessness FEANTSA (the European Federation of organisations working with the homeless) has developed a typology of homelessness and housing exclusion (ETHOS) that allows for improved data collection on homelessness. This typology uses four main concepts:

- Rooflessness,
- Houselessness,
- Insecure housing and
- inadequate housing all of which can be taken to indicate the absence of a home.

In the Urban Audit data is collected on the first two concepts based on the proposal from FEANTSA. ([*FEANTSA proposal for Urban Audit 2006 Definition of homelessness for the collection of urban-level data on the number and profile of homeless people in 300 European cities*](#)).⁴ The figures provided should be the average characteristic for the reference year. If data for a certain point in time is provided this should be indicated in the footnote. Children should be included in the figure. If data available only for adults this should be indicated in the footnote.

Number of roofless persons: includes people living rough and people staying in night/overnight shelters. Definition of rough sleeping may include people who:

- have to spend (part of) the daytime in a public place / space (i.e. does not have access to 24-hour accommodation) and / or

4) The definition proposed by FEANTSA differs from the definition finally adopted by Eurostat in its expert groups for other domains (not the Urban Audit).

"There is a degree of similarity between this definition (i.e. the definition proposed by Eurostat expert groups for other domains) and that of FEANTSA, [...]. However there remain some differences. The most important of these are considered to relate to the ambiguous threat of future homelessness rather than the measurable fact of past/present homelessness (i.e. housing insecurity), the classification of persons with quasi-permanent dependence on accommodation support such as housing benefit allowances (i.e. housing affordability)"[*The production of data on homelessness and housing deprivation in the European Union: survey and proposals – 2004*](#)"

However, we suggest that for the Urban Audit data collection we keep the definition proposed by FEANTSA, given the fact that the difference is not enormous and that data availability at city level could be better when using the FEANTSA definition.

- have no fixed abode – move around between and spend the night in the street / public places / places not designed for habitation / rooms (of friends) / night shelters.”

Number of people in accommodation for the homeless (Homeless hostel; Temporary Accommodation)

Number of people in accommodation for immigrants (Temporary accommodation / reception centers (asylum) Migrant workers accommodation).

Overcrowded households are defined as households with more than one person per room. (*European Community Household Panel (ECHP) - Selected indicators from the 1995 wave*, Office for Official Publications of the European Communities, Luxembourg, 1999) A room is defined as a space of a housing unit of at least 4 square meters as normal bedrooms, dining rooms, living rooms, kitchens and habitable cellars and attics. The following space of a housing unit does not count as rooms: a kitchenette (i.e. a kitchen less than 4 square meters), bathrooms, toilets, corridors, verandas, utility rooms and lobbies. Rooms used only for business or professional purposes are excluded. (*Harmonisation of recommended core units, variables and classifications, 2000 Edition, Eurostat*)

Number of dwellings that is authorised

"Rationale: This indicator measures the extent to which the urban population is housed legally. Only housing which both has a clear title to the land on which it stands, and which is constructed with all required building, land use, or land subdivision permits should be regarded as in compliance. A low value for this indicator is a sign that housing development is proceeding without proper government controls, and that government is either tolerant of housing which does not comply with its regulations or is unable to prevent trespasses.

Methodology: Authorized housing excludes all housing which does not conform to land and main building regulations. Small additions or modifications to a unit in compliance should not change the status of a unit to unauthorised. The authorised/unauthorised status of a housing is usually not recorded in Census and other households surveys. An estimation must be established through experts opinions of builders, surveyors, developers, officials or researchers in the area of land and housing. Maps or aerial photographs can be used in order to locate areas which are more likely to have unauthorized developments. Percentage of unauthorized housing can be established for each area and a general estimation can be made on the basis on the estimated housing stock per area.

Comments and limitations: Data for this indicator might be difficult to obtain. However, crude estimations on the extent of unauthorised housing in the different areas of the city may assist policy makers in planning future priorities, in particular in targeting possible regularization programmes." ([*Urban Indicators Guidelines Monitoring the Habitat Agenda and the Millennium Development Goals United Nations Human Settlements Programme August 2004*](#))

Empty conventional dwellings (SA1025V): empty for more than 3 months, not just for quick change of tenant

House prices: average buying price during the reference year per m², net of national taxes, for houses available for purchase. This includes both newly built and old (existing) houses, as well as terraced houses and semi-detached houses.

Apartment prices: average buying price per m² during the reference year, net of national taxes, for apartments available for purchase. This includes both newly built and old (existing) apartments.

Average annual rent for housing per m²

"Actual rentals for housing (04.1) [*the code refers to the Classification of Individual Consumption*] are all rentals actually paid by tenants, i.e. the rentals the tenant pays to the landlord regardless of any social benefits the tenant receives from public authorities (including payments which at the tenant's discretion go directly to the landlord). Rentals normally include payment for the use of the land on which the property stands, the dwelling occupied, the fixtures and fittings for heating, plumbing, lighting, etc., and, in the case of a dwelling let furnished, the furniture. Rentals also include payment for the use of a garage to provide parking in connection with the dwelling. The garage does not have to be physically contiguous to the dwelling; nor does it have to be leased from the same landlord.

Rentals do not include payment for the use of garages or parking spaces not providing parking in connection with the dwelling (07.2.4). Nor do they include charges for water supply (04.4.1), refuse collection (04.4.2) and sewerage collection (04.4.3); co-proprietor charges for caretaking, gardening, stairwell cleaning, heating and lighting, maintenance of lifts and refuse disposal chutes, etc. in multi-occupied buildings (04.4.4); charges for electricity (04.5.1) and gas (04.5.2); charges for heating and hot water supplied by district heating plants (04.5.5)." (*Classification of Individual Consumption by Purpose Adapted to the Needs of Harmonized Indices of Consumer Prices (2000)*)

Basic amenities: Examples for basic amenities are piped (running) water, flush toilet, bath/shower, central sewerage connection or individual cesspool and hot water installation. **SA1018V:** occupied conventional dwellings where **one** or more of the amenities are lacking. The applied criteria should be indicated in the metadata.

Average occupancy: average number of occupants per occupied conventional dwelling; (cf. definition of conventional dwellings).

Average area of living accommodation (SA1022V), m² per person (occupied dwellings only) and similar variables concerned with **surface areas:** the area refers to the living floor space that is the total area of rooms (rooms have minimum 4 m² of area and are min. 2 m high over the major area of the ceiling thus normal bedrooms, dining rooms, living rooms, habitable cellars and attics, servants rooms, kitchens and other separate spaces used or intended for habitation are all rooms; kitchenettes (<4 m², <2m wide), corridors, verandas, utility rooms and lobbies do not count as rooms nor do bathrooms and toilets).

(Recommendations for the 2000 Censuses of Population and Housing on the ECE Region.- UN Statistical Commission Standards and Studies N° 49, jointly prepared by UN-ECE and Eurostat (pp60-61))

Health (SA2)

Code	Variable	spatial unit	New	LCA
SA2004V	Infant Mortality per year	C,L,N		
SA2005V	Male Infant Mortality per year	C,L,N		
SA2006V	Female Infant Mortality per year	C,L,N		
SA2007V	Number of live births per year	C,L,N		
SA2008V	Number of live births per year (Male)	C,L,N		
SA2009V	Number of live births per year (Female)	C,L,N		
SA2013V	Number of deaths per year under 65 due to diseases of the circulatory or respiratory systems	C,L,N		
SA2014V	Number of deaths per year < 65 due to diseases of the circulatory or respiratory systems (Male)	C,L,N		
SA2015V	Number of deaths per year < 65 due to diseases of the circulatory or respiratory systems (Female)	C,L,N		
SA2016V	Total deaths under 65 per year	C,L,S,N		
SA2017V	Total deaths under 65 per year (Male)	C,L,N		
SA2018V	Total deaths under 65 per year (Female)	C,L,N		
SA2019V	Total deaths per year	C,L,S,N		
SA2020V	Total deaths per year (Male)	C,L,N		
SA2021V	Total deaths per year (Female)	C,L,N		
SA2022V	Number of hospital beds	C,L,N		
SA2026V	Number of hospital discharges of in-patients	C,L,N	×	
SA2027V	Number of practising physicians	C,L,N	×	✓
SA2028V	Number of practising dentists	C,L,N	×	

Infant Mortality: total number of deaths of children born alive aged less than 1 year, for the reference year. Source: [Eurostat CODED](#).

Causes of Death (COD) statistics are based on information derived from the medical death certificate. COD target at the underlying cause of death, i.e. "the disease or injury which initiated the train of morbid events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury". This definition has been adopted by the World Health Assembly.

SA2013-15V Regarding the causes of deaths variables, the [International Statistical Classification of Diseases and Related Health Problems 10th Revision⁵ \(ICD-10\)](#) to be applied:

Chapter IX: Diseases of the circulatory system (I00-I99)

I00-I02 Acute rheumatic fever

5) ICD-10 is regularly up-dated, and the up-dates should be implemented according to a schedule given by WHO.

I05-I09	Chronic rheumatic heart diseases
I10-I15	Hypertensive diseases
I20-I25	Ischaemic heart diseases
I26-I28	Pulmonary heart disease and diseases of pulmonary circulation
I30-I52	Other forms of heart disease
I60-I69	Cerebrovascular diseases
I70-I79	Diseases of arteries, arterioles and capillaries
I80-I89	Diseases of veins, lymphatic vessels and lymph nodes, not elsewhere classified
I95-I99	Other and unspecified disorders of the circulatory system

Chapter X: Diseases of the respiratory system (J00-J99)

J00-J06	Acute upper respiratory infections
J10-J18	Influenza and pneumonia
J20-J22	Other acute lower respiratory infections
J30-J39	Other diseases of upper respiratory tract
J40-J47	Chronic lower respiratory diseases
J60-J70	Lung diseases due to external agents
J80-J84	Other respiratory diseases principally affecting the interstitium
J85-J86	Suppurative and necrotic conditions of lower respiratory tract
J90-J94	Other diseases of pleura
J95-J99	Other diseases of the respiratory system

For these variables, data should include the figures for chapters IX and X of ICD-10 altogether.

The definitions used for doctors, dentists and hospital patients in the Urban Audit 2 deviate substantially from the ones Eurostat, OECD and partly also WHO use in their ongoing data collections. A set of common definitions for doctors, dentists and hospital beds was agreed on 5 April 2006 between Eurostat and OECD⁶. In the Urban Audit data collection we continue the effort to use internationally accepted and harmonised definitions. Therefore we integrated the recommendations and revised the definitions used, which resulted in introducing three new variables (and dropping three old ones) in this domain.

Hospital beds⁸⁾: all hospital beds – curative care, psychiatric care, long-term care, as well as other hospital beds – which are regularly maintained and staffed and immediately available for the care of admitted patients. This includes occupied and unoccupied beds in all hospitals, including general hospitals, mental health and substance abuse hospitals, and other specialty hospitals. It excludes surgical tables, recovery trolleys, emergency stretchers, beds for same-day care, and costs for healthy infants; beds in wards which were closed for any reason; provisional and temporary beds and beds in nursing and residential care facilities.

6) Material from WHO was used in the discussions and the agreed Eurostat/OECD definitions were sent to WHO for comments (pending)..

Number of hospital discharges of in-patients⁷ in the last 12 months, considering an in-patient as a patient who is formally admitted (or 'hospitalized') to an institution for treatment and / or care and stays for a minimum of one night in the establishment – excluding day cases; and a hospital discharge as the formal release of a patient from a hospital after a procedure or course of treatment, i.e. a discharge occurs anytime a patient leaves because of finalisation of treatment, sign out against medical advice, transfer to another health care institution or death – healthy newborns are included; transfers to another department within the same institution are excluded.

Number of practising physicians⁸ Physicians (medical doctors) as defined by ISCO 88 (code 2221) apply preventive and curative measures, improve or develop concepts, theories and operational methods and conduct research in the area of medicine and health care. Practising physicians **provide services directly to patients**. Tasks include: conducting medical examination and making diagnosis, prescribing medication and giving treatment for diagnosed illnesses, disorders or injuries, giving specialized medical or surgical treatment for particular types of illnesses, disorders or injuries, giving advice on and applying preventive medicine methods and treatments.

Inclusion

- Persons who have completed studies in medicine at university level (granted by adequate diploma) and who are licensed to practice.
- Interns and resident physicians (with adequate diploma and providing services under supervision of other medical doctors during their postgraduate internship in a health care facility).
- Salaried and self-employed physicians delivering services irrespectively of the place of service provision.
- Foreign physicians licensed to practice and actively practising in the country

Exclusion

- Students who have not yet graduated.
- Dentists and stomatologists / dental surgeons.
- Physicians working in administration, research and in other posts that exclude direct contact with the patients.
- Unemployed physicians and retired physicians.
- Physicians working abroad.

Number of practising dentists⁸ Dentists as defined by ISCO 88 (code 2222) apply medical knowledge in the field of dentistry, improve or develop concepts, theories and operational methods and conduct research. Dentistry is the provision of comprehensive care regarding teeth and oral cavity, including prevention, diagnosis and treatment of aberrations and diseases. **Practising dentists provide services directly to patients**. Practising dentists' tasks include: making diagnosis, advising on and giving necessary dental treatment, giving surgical, medical and other forms of treatment for particular types of dental and oral diseases and disorders.

Inclusion

7) This definition is largely based on the System of Health Accounts (SHA, OECD 2000).

8) Definition is based on [CARE – Definitions and data collection specifications \(non-expenditure data\) Definitions agreed by Eurostat and OECD for those items that are collected by the two organisations Version 15 June 2006](#)

- Persons who have completed studies in dentistry / stomatology at university level (granted by an adequate diploma) and who are licensed to practice.
- Interns (with an adequate diploma and providing services under supervision of other dentists or dental specialists during their postgraduate internship in a health care facility).
- Salaried and self-employed dentists delivering services irrespectively of the place of service provision.
- Foreign dentists licensed to practice and actively practising in the country.

Exclusion

- Students who have not yet graduated.
- Dentists working in administration, research and in other posts that exclude direct contact with the patients.
- Unemployed dentists and retired dentists.
- Dentists working abroad.

Crime (SA3)

Code	Variable	spatial unit	New	LCA
SA3001V	Total number of recorded crimes within city [country for national data]	C, L, S, N		
SA3005V	Number of murders and violent deaths	C, L, N		
SA3006V	Number of car thefts	C, L, N		
SA3007V	Number of domestic burglary	C, L, S, N	*	
SA3008V	Incidence rate of victimisation (survey based)	C, L, N	*	

Crime: all incidents that happen within the “city” limits and are reported to and logged by the police or another official body, which are considered as crime in the national legal framework.

Number of murders and violent deaths. (SA3005V) Suicide is excluded. The data source for this variable is preferably the police records. If other data source, for example statistics on deaths by death cause (ICD-10) is used, it should be mentioned in the footnote.

Car thefts (SA3006V): Only thefts of cars themselves are considered, not theft of any contents from cars.

Incidence rate of victimisation (SA3008V): This data should be based on a crime victim survey. The incidence rate is the number of incidents per 100 respondents in the year preceding the survey. Incidents include: theft of car, theft from car, car vandalism, theft of motorcycle, theft of bicycle, burglary, attempted burglary, robbery, theft of personal property, sexual offences (women only), assault/threat.) Respondent selected should be aged 16 or above.

The methodology suggested above is based on the International Crime Victim Survey (ICVS) supervised by the United Nations Interregional Crime and Justice Research Institute. (<http://www.unicri.it/wwd/analysis/icvs/data.php>)

Economic Aspects (EC)

Labour Market (EC1)

Code	Variable	spatial unit	New	LCA
EC1001V	Total Economically Active Population	C, L, S, N		✓
EC1002V	Male Economically Active Population	C, L, S, N		
EC1003V	Female Economically Active Population	C, L, S, N		
EC1142V	Total Economically Active Population 15-24	C, L, S, N		✓
EC1143V	Male Economically Active Population 15-24	C, L, N		
EC1144V	Female Economically Active Population 15-24	C, L, N		
EC1145V	Total Economically Active Population 55-64	C, L, N		✓
EC1146V	Male Economically Active Population 55-64	C, L, N		
EC1147V	Female Economically Active Population 55-64	C, L, N		
EC1010V	Residents Unemployed	C, L, S, N		✓
EC1011V	Male Residents Unemployed	C, L, N		
EC1012V	Female Residents Unemployed	C, L, N		
EC1148V	Residents Unemployed 15-24	C, L, S, N		✓
EC1149V	Male Residents Unemployed 15-24	C, L, N		
EC1150V	Female Residents Unemployed 15-24	C, L, N		
EC1151V	Residents Unemployed 55-64	C, L, S, N		
EC1152V	Male Residents Unemployed 55-64	C, L, N		
EC1153V	Female Residents Unemployed 55-64	C, L, N		
EC1154V	Unemployed continuously for more than six months, 15-24	C, L, N		
EC1155V	Male unemployed continuously for more than six months, 15-24	C, L, N		
EC1156V	Female unemployed continuously for more than six months, 15-24	C, L, N		
EC1157V	Unemployed continuously for more than one year, 55-64	C, L, N		
EC1158V	Male unemployed continuously for more than one year, 55-64	C, L, N		
EC1159V	Female unemployed continuously for more than one year, 55-64	C, L, N		
EC1025V	Residents in Self Employment	C, N		
EC1026V	Male residents in Self Employment	C, N		
EC1027V	Female residents in Self Employment	C, N		
EC1028V	Residents in Paid Employment	C, N		
EC1029V	Male residents in Paid Employment	C, N		
EC1030V	Female residents in Paid Employment	C, N		
EC1034V	Total Full-Time Employment	C, L, N		✓
EC1035V	Male Full-Time Employment	C, L, N		✓
EC1036V	Female Full-Time Employment	C, L, N		✓
EC1088V	Total Part-Time Employment	C, L, N		✓
EC1089V	Male Part-Time Employment	C, L, N		✓
EC1090V	Female Part-Time Employment	C, L, N		✓
EC1160V	Total Full-Time Employment 15-24	C, N		
EC1161V	Full-Time Employment 15-24 Male	C, N		
EC1162V	Full-Time Employment 15-24 Female	C, N		
EC1163V	Total Full-Time Employment 55-64	C, N		

EC1164V	Full-Time Employment 55-64 Male	C, N		
EC1165V	Full-Time Employment 55-64 Female	C, N		
EC1166V	Total Part-Time Employment 15-24	C, N		
EC1167V	Part-Time Employment 15-24 Male	C, N		
EC1168V	Part-Time Employment 15-24 Female	C, N		
EC1169V	Total Part-Time Employment 55-64	C, N		
EC1170V	Part-Time Employment 55-64 Male	C, N		
EC1171V	Part-Time Employment 55-64 Female	C, N		

The Urban Audit requests data on people living in the town / city, irrespective of their work place. In this way, all variables under the heading of Labour Market are **residence based**, not work-place based. Since the Labour Force Survey is, in general, designed for NUTS level 2, some estimation will be necessary.

Economically Active population: all resident persons in employment and unemployed (and looking for work) above 15 in accordance with Labour Force Survey (Ref.: [Eurostat \(2003\): The European Union Labour Force Survey – Methods and Definitions – 2001](#)).

Employment: For the Urban Audit, a person, aged 15 years and over and living in private households, is considered as having an employment if he or she did any work for pay or profit for at least one hour during the reference week, or was not working but had a job from which he/she was temporarily absent. Employed persons include self-employed persons, employees and unpaid family workers.

Economically Inactive population: all residents over 15 who are not economically active (students, long term sick, permanently disabled, retired people, national armed services and those not seeking to enter the labour market), in accordance with LFS.

Unemployment (ILO definition): In accordance with the ILO Standards and the Community Labour Force Survey definition, unemployed persons comprise all resident persons above 15 and under 75 who, during the reference period, were:

- (a) without work, i.e. neither had a job nor were not at work (for one hour or more) in paid employment or self employment;
- (b) available for work, i.e. were available for paid employment or self employment;
- (c) actively seeking work, i.e. had taken specific steps to seek paid employment or self employment.

Full-time employment: the number of persons (not Full Time Equivalents !) according to the national definition, e.g. employment requiring 30 or more hours a week.

Part-time employment: the number of persons (not Full Time Equivalents !) according to the national definition, e.g. employment requiring less than 30 hours a week.

Continuously unemployed: unemployed for more than 6 months without interruption, following the LFS obligations.

Regarding the national level data that is presented in conjunction with the urban level data, the average from the data available on a quarterly basis should be taken.

Economic Activity (EC2)

Code	Variable	spatial unit	New	LCA
EC2001V	Gross Domestic Product of city / region / country	C, L, N		✓
EC2002V	Total resident population of area [country] relating to reported GDP	C, L, N		
EC2005V	<i>Purchasing power parities for the ESA95 GDP aggregates (EU25=1)</i>	N	x	
EC2015V	Total employment of area [country] relating to reported GDP	C, L, N		✓
EC2021V	All companies	C, N		
EC2003V	Companies with headquarter within the city quoted on national stock exchange	C, N		
EC2004V	New business registered in reference year	C, N		
EC2014V	Companies gone bankrupt in reference year	C, N		
EC2020V	Total employment / jobs (work place based)	C, N		
EC2008V	Employment (jobs) in agriculture, fishery (NACE Rev. 1.1: A-B)	C, N		
EC2009V	Employment (jobs) in mining, manufacturing, energy (NACE Rev. 1.1: C-E)	C, N		
EC2022V	Employment (jobs) in construction (NACE Rev. 1.1: F)	C, N		
EC2010V	Employment (jobs) in trade, hotels, restaurants (NACE Rev. 1.1: G-H)	C, N		
EC2023V	Employment (jobs) in transport, communication (NACE Rev. 1.1: I)	C, N		
EC2011V	Employment (jobs) financial intermediation, business activities (NACE Rev. 1.1: J-K)	C, N		
EC2012V	Employment (jobs) in public admin., health, education, other (NACE Rev. 1.1: L-P)	C, N		
EC2016V	Employment (jobs) in NACE Rev. 1.1 C-F	C, N		
EC2017V	Employment (jobs) in NACE Rev. 1.1 G-P	C, N		
EC2018V	Employment (jobs) - employees	C, N		
EC2019V	Employment (jobs) - self employed	C, N		

In contrast to the previous domain, all the variables in the domain "Economic Activity" are measured at the **work-place**, not at the 'place of residence'.

Gross Domestic Product: at market prices is the final result of the production activity of resident producer units (ESA 1995, 8.89). It can be defined in three ways:

1. Output approach

GDP is the sum of gross value added of the various institutional sectors or the various industries plus taxes and less subsidies on products (which are not allocated to sectors and industries). It is also the balancing item in the total economy production account.

2. Expenditure approach

GDP is the sum of final uses of goods and services by resident institutional units (final consumption expenditure and gross capital formation), plus exports and minus imports of goods and services.

3. Income approach

GDP is the sum of uses in the total economy generation of income account: compensation of employees, taxes on production and imports less subsidies, gross operating surplus and mixed income of the total economy.

Source: Eurostat, CODED, ESA 1995 regulation ([Regulation 2223/96 of the Council](#)). Often for sub-national levels the output and income approaches are used.⁹ EC2002V refers to the total population (all ages, working or not) resident in the *area* to which the reported GDP is related. This *area* may be different from the area of the Urban Audit spatial unit (City or LUZ). It enables the GDP per capita for the *area* to be calculated. EC2015V refers to the total employment (jobs) in the *area*, so including residents of the *area*, in-commuters from outside the *area* and excluding out-commuters. This enables regional GDP per employed person to be calculated.

Companies = Enterprises

“The enterprise is the smallest combination of legal units that is an organisational unit producing goods or services, which benefits from a certain degree of autonomy in decision-making, especially for the allocation of its current resources. An enterprise carries out one or more activities at one or more locations. An enterprise may be a sole legal unit.” (European Union, 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 (Official Journal of the European Communities No L 076, 30/03/1993, p. 1), Section III A of 15.03.1993 on the statistical units for the observation and analysis of the production system in the Community)

Quoted on Stock Market: a company's share price must be quoted on the national stock market.

Company Headquarters: the head office of a company refers to the main administrative establishment of an enterprise, possibly without any production unit located there.

New business registered in reference year (EC2004):

“A count of the number of births of enterprises registered to the population concerned in the business register corrected for errors. A birth amounts to the creation of a combination of production factors with the restriction that no other enterprises are involved in the event. Births do not include entries into the population due to: mergers, break-ups, split-off or restructuring of a set of enterprises. It does not include entries into a sub-population resulting only from a change of activity”. (*Business Demography, Methodological Guidelines, Version 2, April 2002 – Guidelines for the Harmonised Data Collection*).

The number of employees is not a criterion here, i.e. even one-employee companies or self-employment companies are counted. A change in only the name of a company does not create a new business.

9) Gross domestic product data for sub-national levels are estimated based on figures for gross value added at basic prices after correction for financial intermediation services indirectly measured (FISIM).

Moving into the city of an already existing company: This is regarded as a new company in that city, and reduces the number of companies in the municipality from where the company left. It is therefore included.

Business Register: Registers in the European Union are harmonised according to the Council Regulation (EEC) No. 2186/93 of 22/07/93 on Community Coordination in drawing up business registers for statistical purposes (Official Journal 196 of 5/08/93) and should contain all enterprises, the legal units responsible for them and local units depending on them, carrying out economic activities contributing to gross domestic product (GDP).

Companies gone bankrupt in reference year (EC2014) = legal units

Legal units include:

- legal persons whose existence is recognised by law independently of the individuals or institutions which may own them or are members of them.
- natural persons who are engaged in an economic activity in their own right.

The legal unit always forms, either by itself or sometimes in combination with other legal units, the legal basis for the statistical unit known as the 'enterprise'.

(Council Regulation (EEC) No 696/93 of 15 March 1993)

Bankrupt: a company declared (according to bankruptcy law) as unable to pay its debts.

Employment in 3 large industries (EC2008V, EC2016V, EC2017V): These variables refer to the A3 breakdown in National Accounts .

NACE Rev. 1.1 is a Statistical Classification of Economic Activities from Eurostat. 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: new activities; activities which had manifestly grown in importance since NACE Rev. 1 was developed, correction of errors in the original NACE Rev. 1.

For more information: <http://europa.eu.int/comm/eurostat/ramon>. The main categories are listed in the following Table.

Table 1: NACE Rev.1.1 Main Categories

A	Agriculture, hunting and forestry
B	Fishing
C	Mining and quarrying
D	Manufacturing
E	Electricity, gas and water supply
F	Construction
G	Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
H	Hotels and restaurants
I	Transport, storage and communication
J	Financial intermediation
K	Real estate, renting and business activities
L	Public administration and defence; compulsory social security

M	Education
N	Health and social work
O	Other community, social and personal service activities
P	Private households with employed persons
Q	Extra-territorial organisations and bodies

Jobs: “A job is defined as an explicit or implicit contract (relating to the provision of labour input, not to supplying output of a good or service) between a person and a resident institutional unit to perform work (activities which contribute to the production of goods or services within the production boundary) in return for compensation (including mixed income of self-employed persons) for a defined period or until further notice.

In that definition, both employee and self-employment jobs are covered: that is, an employee job if the person belongs to another institutional unit than the employer and a self-employment job if the person belongs to the same institutional unit as the employer.

The concept of jobs differs from the concept of employment:

- It includes second, third, etc. jobs of the same person. Those second, third, etc. jobs of a person may either successively follow one another within the reference period (usually, a week) or, as when someone has an evening job as well as a daytime job, run in parallel.
- On the other hand, it excludes persons temporarily not at work but who have a ‘formal attachment to their job’ in the form, for instance, of ‘an assurance of return to work or an agreement as to the date of return’. Such an understanding between an employer and a person on lay-off or away on training is not counted as a job in the system.”

European System of Accounts – ESA 1995, Office for Official Publications of the European Communities, Luxembourg, 1996, [11.22-23]

In the Urban Audit, employed and self-employed persons are counted at the work place in the specified spatial unit.

Income Disparities and Poverty (EC3)

Code	Variable	spatial unit	New	LCA
EC3040V	Average disposable annual household income	C, N	✗	
EC3039V	Median disposable annual household income	C, L, S, N		✓
EC3045V	Disposable annual household Income: Quintile 4 (income with 20% households above, 80% below)	C, L, N		
EC3048V	Disposable annual Household Income: Quintile 3 (income with 40% households above, 60% below)	C, L, N		
EC3051V	Disposable annual Household Income: Quintile 2 (income with 60% households above, 40% below)	C, L, N		
EC3054V	Disposable annual Household Income: Quintile 1 (income with 80% households above, 20% below)	C, L, N		
EC3056V	Total Number of Households (relating to the reported household income)	C, L, S, N	✗	
EC3055V	Total Number of Households with less than 60% of the	C, L, N	✗	

	national median disposable annual household income			
EC3057V	Total Number of Households with less than half of the national average disposable annual household income	C, L, S, N		
EC3060V	Total Number of Households reliant on social security benefits (>50%)	C, L, S, N		
EC3063V	Individuals reliant on social security benefits (>50%)	C, L, S, N		

The household definition used for EC3 domain is slightly different from the household definition used for DE3 and SA1 domains. This is due to the different data sources. The source for DE3 and SA1 variable should be a micro census (or estimated data based on registers and census). For the definitions in the SA1 domain we were seeking compliance with the EU regulations on Community Statistics of Income and Living Conditions (cf. no. [1177/2003](#) et seq).

For EC3039V and EC3040V income value should be reported.

For EC3045V, EC3048V, EC3051V, EC3054V the income value at cut-off point should be reported.

Household Income: annual income (in Euro) from all sources for the reference year. Current prices relating to each reference year are collected.

Median disposable annual household income: Maximum comparability is sought with the methodological framework defined in the EU regulations on Community Statistics of Income and Living Conditions (cf. no. [1177/2003](#) et seq).

Median: the middle value, i.e. 50% of all observations are below the median value and 50% above it. In general, individual data are rarely available so income classes are used. Knowing the number of households in each class, the class of the median income is known. The “exact” amount of median income can be approximated by replacing the steps (caused by the classes) in the cumulative frequency curve by a smooth curve of distribution, at least for the class in which the median is situated.

"Household total disposable income" is defined as either (1)

The sum for all household members of **gross** personal income components:

- Gross cash or near-cash employee income (PY010G)
- Gross non-cash employee income (PY020G)
- Gross profits or losses from self-employment, including royalties (PY050G)
- Gross unemployment benefits (PY090G)
- Gross old-age benefits (PY100G)
- Gross survivors' benefits (PY110G)
- Gross sickness benefits (PY120G)
- Gross disability benefits (PY130G)
- Gross educational allowances (PY140G)

Plus gross income components at household level:

- Gross income from rental of property or land (HY040G)
- Gross family/child-related allowances (HY050G)
- Gross social exclusion benefits not elsewhere classified (HY060G)
- Gross housing allowances (HY070G)
- Gross regular inter-household cash transfers received (HY080G)

Gross interest, dividends, profit from capital investments in unincorporated businesses (HY090G)

Gross income received by people aged under 16 (HY110G)

Minus:

Employers's social insurance contributions (PY030G)

Regular taxes on wealth (HY120G)

Regular inter-household cash transfer paid (HY130G)

Tax on income and social insurance contributions (HY140G)

Or (2) :

The sum for all household members of personal income components **net** of income tax and social security contributions:

Net cash or near-cash employee income (PY010N)

Net non-cash employee income (PY020N)

Net profits or losses from self-employment, including royalties (PY050N)

Net unemployment benefits (PY090N)

Net old-age benefits (PY100N)

Net survivors' benefits (PY110N)

Net sickness benefits (PY120N)

Net disability benefits (PY130N)

Net educational allowances (PY140N)

Plus Net income components at household level:

Net income from rental of property or land (HY040N)

Net family/child-related allowances (HY050N)

Net social exclusion benefits not elsewhere classified (HY060N)

Net housing allowances (HY070N)

Net regular inter-household cash transfers received (HY080N)

Net interest, dividends, profit from capital investments in unincorporated businesses (HY090N)

Net income received by people aged under 16 (HY110N)

Minus:

Regular taxes on wealth (HY120G)

Regular inter-household cash transfer paid (HY130G)

Repayment/receipt for tax adjustments on income (HY145N)

Or (3) :

The sum for all household members of personal income components, some of which are gross and some of which are net of income tax and social security contributions:

Plus income components at household level, some of which are gross and some of which are net of income tax and social security contributions:

Plus/Minus: income tax, social security contributions and tax adjustments

The **detailed definition** of each code can be found in [*Commission Regulation no.1980/2003*](#). Some examples are set-out below.

Note: some of the income components are only mandatory with effect from 2007:

- imputed rent

- interest paid on mortgage
- value of goods from own consumption
- employers' social contributions

Income from work consists of:

Cash or near-cash employee income includes wages and salaries paid for time worked in main or secondary jobs; remuneration for time not worked (eg. holiday payments); enhanced rates of pay for overtime; commissions, tips and gratuities; supplementary payments (e.g. 13th and 14th months' salary); profit-sharing and bonuses; productivity payments.

Non-cash employee income includes company car, subsidised meals, payment of housing-related expenses (but not accommodation itself), other goods and services. It is computed according to market value.

Self-employment income such as own business, profession or farm is collected as the amount of pre-tax net profit or loss (e.g. as shown on annual accounts prepared for tax purposes), before deducting money withdrawn for private use. It includes royalties earned on writing, inventions, etc. The value of goods produced for own consumption is computed at market value.

Private income consists of:

Property income. This includes income from the rental of land or dwellings after deducting costs such as mortgage interest, minor repairs and maintenance, insurance and other charges.

Imputed rent income refers to the value imputed for households that do not report paying full rent either because they are owner-occupiers or because they live in subsidised accommodation.

Capital income covers bank interest, dividends from shares and similar income.

Transfer receipts consist of:

Regular inter-household cash transfers. This includes any financial support or maintenance from relatives, friends or other persons outside the household, other than free or subsidised housing.

Social benefits, which consist of:

Old-age and survivors' pensions cover

Pensions or benefits relating to old-age or retirement from the following schemes: basic (first pillar), supplementary (second pillar), personal (third pillar), means tested welfare, early retirement and other old-age related schemes. It also includes pensions to widows and orphans.

Other social transfers cover

Family related benefits including birth grants, maternity allowances, child allowance, parental leave and other family related benefits paid in cash.

Housing allowance consists of subsidies or other payments from public schemes for housing costs.

Unemployment benefits covering benefits related to unemployment, severance, job creation or training. These include: unemployment insurance benefits, unemployment assistance, termination payments, training/retraining allowance, and placement, resettlement and rehabilitation benefits or other.

Sickness benefits regrouping income maintenance benefits in case of sickness and injury, other sickness benefits and compensations for occupational accidents or diseases,

Invalidity benefits cover invalidity pension and other invalidity benefits.

Education related benefits that are scholarships or study grants.

Social assistance not elsewhere classified consists of other benefits paid to people with insufficient resources and to assist in difficult situations.

Deductions consist of:

Taxes on income and social insurance contributions, including capital gains tax, whether deducted at source or separately, net of any tax repayments.

Regular taxes on wealth, including amounts paid periodically on the ownership or use of assets, excluding inheritance taxes

Mortgage interest payments, before deducting tax allowances.

Regular inter-household cash transfers. This includes any financial support or maintenance to relatives, friends or other persons outside the household, other than free or subsidised housing.

Total Number of Households (relating to the reported household income)

"Households" (if not defined according to an existing national standard) include all persons who share in expenses (contributing or benefiting from expenditure), who are

- usually resident, whether or not related to other members.
- boarders, lodgers, tenants, visitors, live-in domestic servants, au-pairs who have no alternative private address.
- temporarily absent (<6 months) (eg. for work, holiday, education) and no alternative private address.
- absent for longer (eg. for work, education) but with ties to household members (partner or child), in regular contact and no alternative private address.
- temporarily absent (<6 months) in an institution (eg. for medical treatment), but with ties to household members and no alternative private address.

Quintile: ranking of households by income and division into 5 (high to low) size bands with equal number of households in each size band.

The 1st quintile is the exact income value where 20% of people are below and 80% are above it. And so on. The 4th quintile is the exact income value where 80% of people are below and 20% are above it. The 5th quintile is the amount of income of the household with the highest income in the whole population. For confidentiality reasons, the 5th quintile is not reported. ¹⁰

If household incomes by quintile are unavailable, the nearest approximation is reported, stating clearly the distribution (e.g. quartiles, deciles), or fiscal data, with the relevant meta-data being marked clearly.

Households receiving social security benefits depends on national practices. Here such households are reported where more than 50% of income is social security benefit.

If the **number of individuals reliant on social security benefits** (EC3063V) is unavailable, an estimate is provided.

10) Please note: At EU level, the quintile shares are computed and compared, not the quintile values as in the Urban Audit.

Civic Involvement (CI)

Civic Involvement (CI 1)

Code	Variable	spatial unit	New	LCA
CI1001V	European Elections: Total electorate (eligible)	C		
CI1002V	European Elections: Total electorate (registered)	C		
CI1003V	European Elections: Number of voters turned out	C		
CI1004V	National Elections: Total electorate (eligible)	C, S		
CI1005V	National Elections: Total electorate (registered)	C, S		
CI1006V	National Elections: Number of voters turned out	C, S		
CI1007V	City Elections: Total electorate (eligible)	C, S		
CI1008V	City Elections: Total electorate (registered)	C, S		✓
CI1009V	City Elections: Number of voters turned out	C, S		✓
CI1016V	Total number of elected city representatives	C		
CI1017V	Number of Male elected city representatives	C		
CI1018V	Number of Female elected city representatives	C		

Electorate: those entitled to vote (i.e. registered); can be different for European, national and city elections.

Eligible / registered to vote: This distinction only makes sense in countries where people have to register (actively) in order to be allowed to vote. For all other countries eligible and registered are identical!

National election: voting to return representatives to the national parliament / assembly.

City election: voting to return representatives to the city (municipality) council.

European election: voting to return representatives to the European Parliament

Local Administration (CI 2)

Code	Variable	spatial unit	New	LCA
CI2001V	Total Municipality Authority Income	C		✓
CI2002V	Municipality Authority Income derived from local taxation	C		✓
CI2003V	Municipality Authority Income transferred from national or regional government	C		
CI2004V	Municipality Authority Income derived from charges for services	C		
CI2005V	Municipality Authority Income derived from other sources	C		
CI2006V	Total Municipality Authority Expenditure	C		✓
CI2014V	Debt of municipal authority	C	x	
CI2015V	Level of reserves of municipal authority	C	Only UK	
CI2007V	Total number of persons directly employed by the local administration	C		

These variables intend to provide an idea of the scope of influence or “Marge de manoeuvre” (governance) of the municipal government. Therefore, privatised enterprises that need to report to the City Council (directly or indirectly) are included if they are owned >50% by the local authority.

Total municipal income / expenditure (CI2001, CI2006): in these variables, capital revenue / investment expenditure is not included, if not mentioned otherwise in the metadata (free-format text). It includes services that fall under the responsibility of the municipality, i.e. excluding state employees and outsourced tasks (where not otherwise mentioned) , also excluding regional government.

The responsibilities are very different between countries, even between cities in the same country. Education, health, police, transport might be private or covered by the central state. In this way, it should be understood that results are not comparable. The same applies for municipality employment. Nevertheless, these variables are considered important, and have been kept within the Urban Audit. However, users need to bear in mind the above mentioned lack of comparability.

Persons employed in the “central” administration of the city: all persons directly employed by the municipal authority in their “central” administration operations. This excludes central state employees.

Debt of municipal authority: Reporting of municipal authority debt should be in accordance with the "[ESA95 manual on government deficit and debt](#)". ESA95 code (S.1313) Local government debt. It would be equal to the sum of all liabilities: currency and deposits, securities other than shares including financial derivatives, loans and other accounts payable, as well as, in some cases and to a very small extent, shares and other equity and insurance technical reserves.

If data on the debt of municipal authority is not available. As an alternative data on the **Level of reserves of municipal authority** could be provided.

Reserves are an accumulated surplus income, which can be used to finance future spending and to provide working balances. For example: schools' reserves, reserves which have been earmarked for other purposes, and 'unallocated reserves' for general contingencies. Earmarked reserves are reserves set aside for stated purposes. Unallocated reserves are reserves held by an authority which may be used for any purpose. In other words, reserves are sums set aside to finance future spending for purposes falling outside the definition of a provision. Provisions are sums set aside to meet any liabilities or losses which are likely or certain to be incurred, but uncertain as to the amounts or dates on which they will arise.

Training and Education (TE)

Education and Training provision (TE1)

Code	Variable	spatial unit	New	LCA
TE1001V	Number of children 0-4 in day care	C, L, N		✓
TE1006V	Number of children 0-2 in day care	C, L, N	x	
TE1007V	Number of children 3-4 in day care	C, L, N	x	
TE1005V	Total students registered for final year of compulsory education	C, L, N		
TE1030V	Students leaving compulsory education without having a diploma	C, L, N		
TE1031V	Students in upper and further education (ISCED level 3-4)	C, N		
TE1032V	Male students in upper and further education (ISCED level 3-4)	C, N		
TE1033V	Female students in upper and further education (ISCED level 3-4)	C, N		
TE1026V	Students in higher education (ISCED level 5-6)	C, N		
TE1027V	Male students in higher education (ISCED level 5-6)	C, N		
TE1028V	Female students in higher education (ISCED level 5-6)	C, N		

Please note: All educational data are workplace based (= study-place based).

Day care institutions: includes all the institutions, public or private, which look after children during the day (for example: pre-school, kindergarten, nursery school or equivalent - ISCED level 0). The aim is to measure the demand and not the supply of day care (for all children aged <5 years old and not at home during the day). Includes special schools or equivalents for children with special needs (eg. handicapped). Excludes cultural/sporting/etc. activities if undertaken for leisure purposes rather than child care purposes. Child minders (qualified or unqualified) should be included if a direct payment/employment arrangement exists between child minder and parents. Baby sitters and au-pairs should be included.

Students not completing compulsory education at institutions offering it within the specified boundaries ("workplace based"): all students of any age, leaving compulsory education before completion (in the reference year) or without any diplomas. This comprises both private and public education. The term "compulsory education" has to be adapted to the institutional arrangements of the country. Students moving from one to another school to fulfil compulsory education will have done compulsory education at the end. This phenomena is assumed to be small and might be neglected if necessary.

International Standard Classification for Education (ISCED):

Level 0: Pre-primary education;

Level 1: Primary education or first stage of basic – compulsory – education;

Level 2: Lower secondary or second stage of basic education; Corresponds to the first cycle of secondary education. In countries with no system break between lower secondary

and upper secondary education and where lower secondary education lasts more than three years, only the first three years following primary education are counted as lower secondary education. Lower secondary education may either be “terminal” preparing students for entry directly into working life and or “preparatory” preparing students for upper secondary education.

Level 3: Upper secondary education; Includes general, technical or vocational education for students who have completed their first cycle of secondary education. Apprenticeship programmes are included. This may be “terminal” preparing students for entry directly into working life and or “preparatory” preparing students for tertiary education.

Level 4: Post-secondary non-tertiary education; programmes leading to the award of a qualification not equivalent to a first university degree, but admission to this level usually requires the completion of a programme at the upper secondary level (ISCED 3).

Level 5: First stage of tertiary education (not leading directly to an advanced research qualification); Programmes leading to the award of a first or second university degree or a recognised equivalent qualification, e.g.

- **First degree**

- A. (Bachelor of Arts)
- B.S. or B.Sc. (Bachelor of Science)
- B.Ed. (Bachelor of Education)
- B.Com. (Bachelor of Commerce)
- B.Eng. or B.Tech. (Bachelor of Engineering or Technology)
- L.L.B. (Bachelor of Law)
- M.B., B.S. (Bachelor's degree in Medicine and Surgery)
- Programmes leading to a licence, a degree awarded after completion of a first cycle of two years study leading to a diploma, followed by a second one-year cycle at an advanced level in France and some other French speaking countries.
- Diplomatura universitaria in Spain (Diploma, Diplome in other countries).
- Diplome or Magister qualification in Germany and other countries having a similar system.
- Licenciado arquitecto or ingeniero and similar qualifications such as Bacharelado or Licenciatura in Spanish speaking countries.

- **Second degree**

- M.A. (Master of Arts)
- M.S. or M.Sc. (Master of Science)
- M.E., M.Eng., or M.Tech. (Master of Engineering or Technology)
- M.B.A. (Master of Business Administration)
- M.L.S. (Master of Library Science)
- M.Ed. (Master of Education) and
- L.L.M. (Master of Laws).
- Programmes leading to post-graduate qualifications or “specialist” degrees in professional fields such as Medicine, Engineering and Architecture, for which completion of a first degree is the minimum entrance requirement. These programmes may have some research component but not of the level or type, that meets the requirement of Level 6.

- Programmes leading to qualifications equivalent to Master's level in other countries, such as Maitrise in France and other French speaking countries.

Level 6: Second stage of tertiary education (leading to an advanced research qualification). Programmes leading to the award of an advanced research qualification: e.g. PhD's, etc.

Students in upper secondary education (ISCED 97 level 3): the number of students attending programmes leading to the award of a qualification equivalent to ISCED 97 level 3.

Students in further education (ISCED 97 level 4): the number of students attending programmes leading to the award of a qualification equivalent to ISCED 97 level 4.

Students in higher education (ISCED 97 levels 5-6): the number of students attending programmes leading to the award of a qualification equivalent to ISCED 97 levels 5 or 6.

Definitions are based on the [International Standard Classification of Education I S C E D 1997 published by the UNITED NATIONS Educational, Scientific and cultural ORGANIZATION](#).

Educational Qualifications (TE2)

Code	Variable	spatial unit	New	LCA
TE2025V	Number of residents (aged 15-64) with ISCED level 0, 1 or 2 as the highest level of education	C, L, S, N	✗	✓
TE2026V	Number of residents (aged 15-64) with ISCED level 0, 1 or 2 as the highest level of education - male	C, L, N	✗	
TE2027V	Number of residents (aged 15-64) with ISCED level 0, 1 or 2 as the highest level of education - female	C, L, N	✗	
TE2028V	Number of residents (aged 15-64) with ISCED level 3 or 4 as the highest level of education	C, L, S, N	✗	✓
TE2029V	Number of residents (aged 15-64) with ISCED level 3 or 4 as the highest level of education - male	C, L, N	✗	
TE2030V	Number of residents (aged 15-64) with ISCED level 3 or 4 as the highest level of education - female	C, L, N	✗	
TE2031V	Number of residents (aged 15-64) with ISCED level 5 or 6 as the highest level of education	C, L, S, N	✗	✓
TE2032V	Number of residents (aged 15-64) with ISCED level 5 or 6 as the highest level of education - male	C, L, N	✗	
TE2033V	Number of residents (aged 15-64) with ISCED level 5 or 6 as the highest level of education - female	C, L, N	✗	

See definitions for TE1.

Environment (EN)

Climate/Geography (EN1)

Code	Variable	spatial unit	New	LCA
EN1003V	Average temperature of warmest month	C		
EN1004V	Average temperature of coldest month	C		
EN1005V	Rainfall (litre/m ²)	C		
EN1001V	Number of days of rain per annum	C		
EN1002V	Total number of hours of sunshine per day	C		

Days of rain: any day during which rainfall is recorded (in the reference year).

Rainfall: measured in litre/m² = mm

Total number of hours of sunshine per day in the reference year: total number of hours of sunshine in (each) reference year divided by the total number of days in the reference year (365 or 366 in a leap year).

Several points of measurement: if there is more than one meteorological station within the specified spatial unit, one representative of local conditions is to be selected. Calculating these variables by selecting and averaging values from different stations within the core city is also allowed.

Air Quality and Noise (EN2)

Code	Variable	spatial unit	New	LCA
EN2002V	Number of days ozone O ₃ concentrations exceed 120 µg/m ³	C		
EN2003V	Number of days nitrogen dioxide NO ₂ concentrations exceed 200 µg/m ³	C		
EN2005V	Number of days particulate matter PM ₁₀ concentrations exceed 50 µg/m ³	C		
EN2025V	Accumulated ozone concentration in excess 70 µg/m ³	C	✗	
EN2026V	Annual average concentration of NO ₂ (µg/m ³)	C	✗	
EN2027V	Annual average concentration of PM ₁₀ (µg/m ³)	C	✗	
EN2033V	Number of residents exposed to road traffic noise >65	C	✗	

	dB(A) at day time			
EN2035V	Number of residents exposed to road traffic noise >55 dB(A) at night time	C	x	
EN2032V	Number of residents exposed to rail traffic (incl. tram) noise >65dB(A) at daytime	C	x	
EN2036V	Number of residents exposed to rail traffic (incl. tram) noise >55dB(A) at night-time	C	x	
EN2028V	Number of residents exposed to air traffic noise >65 dB(A) at day time	C, L	x	
EN2029V	Number of residents exposed to air traffic noise >55 dB(A) at night time	C, L	x	

Relevant legislation:

- Council Directive 99/30/EC relating to limit values for sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter and lead in ambient air
- European Common Indicators (2 and 5), see www.sustainable-cities.org/indicators/
- Council Directive 99/0067 on the national emission ceilings for certain atmospheric pollutants
- Council Directive 2002/3/EC relating to ozone in ambient air
- Proposal for Directive 6660/01 relating to the assessment and management of environmental noise
- Council Directive 2002/49 on environmental noise

Under the Decision 97/101/EC “establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the Member States”(the so-called Exchange of Information (EoI) decision), the European database of air quality data AirBase is maintained by the European Environment Agency. The information in this database (see: airbase.eionet.europa.eu) will cover the data needs for the listed air quality indicators.¹¹ All variables related to air quality (EN2002V, EN2003V, EN2005V, EN2037V, EN2026V, EN2027V) will be extracted from AirBase. The definitions below are for information only.

The number of exceedance days – for variables **EN2002V; EN2003V; EN2005V** –, the annual mean values – for variables EN2026V; EN2027V – and the accumulated concentrations – for EN2037V – are calculated for each urban background station. A city average number of exceedance days is obtained by averaging over all available urban background stations. Only time series with a data capture of at least 75% are used (that is with more than 274 valid daily values per calendar year). The selected urban stations

11) Additional information might be obtained from the database established in the framework of the European Monitoring and Evaluation Programme of Air Pollution (www.emep.int). This database is available at: www.emep.int/areas/index.html.

include only station types "(sub)urban background". The stations classified as "street", "industrial" or "traffic" are influenced by local emissions and might not be representative for the concentrations in more residential areas.

For **EN2002V** the number of days when the highest daily 8-hour mean of O₃/m³ exceeds 120 microgram should be counted. The highest 8-hour average for the ozone concentration on one day is determined on the basis of the progressive averages for periods of eight hours, with these periods being calculated using hourly values and updated every hour. Each average for eight hours calculated in this way applies for the day on which the period of eight hours ends, in other words the first calculation period for a given day starts at 17.00 hours on the previous day and ends at 01.00 hours on that day, and the last calculation period is from 16.00 hours to 24.00 hours.

For **EN2003V** the number of days should be counted when the hourly average limit value of NO₂/m³ exceeds at least once 200 microgram.

For **EN2005V** the number of days when the mean (24-h average, i.e. daily) value for PM₁₀ exceeds 50 microgram/m³ should be counted.

EN2037V is an exposure parameter – indicated as SOMO₃₅ – which is the sum of excess of daily maximum 8-h means over the cut-off of 70 µg/m³ (35 ppb) calculated for all days in a year.

This SOMO₃₅ is defined as:

$$SOMO35_{uncorrected} = \sum_i \max(0, (C_i - 35))$$

where C_i is the maximum daily 8-hour mean concentration and the summation is over all days per year. SOMO₃₅ has a dimension of [(µg/m³).day] or [ppb.day]. SOMO₃₅ is sensitive for missing values and a correction to full time coverage is needed. This is done by introducing

$$SOMO35 = \frac{SOMO35_{uncorrected} \cdot N_{year}}{N_{valid}}$$

where N_{valid} is the number of valid daily values and N_{year} is the number of days per year. A representative SOMO₃₅ value can only be calculated when sufficient valid measurements are available. For practical reasons a data coverage of at least 75% is required.

Indicators used in the Noise Directive were selected for the **Noise domain** of the Urban Audit. The Directive 2002/49/EC requires that larger urban areas map exposure to noise from 2007 onwards. The Directive sets out legally binding specifications for noise mapping:

- article 5(L_{den} , L_{night}) and article 6 (calculation methods)
- annexes I (L_{den} , L_{night}) and II (calculation methods)

From that mapping exercise, MS must then report data on the number of people living in areas exposed to different noise levels.

- article 10(2)
- annex VI(1) for agglomerations (road/rail/air traffic must be treated separately)

Several important guidelines and pieces of guidance have been developed under the leadership of the EC:

http://europa.eu.int/eur-lex/pri/en/oj/dat/2003/l_212/l_21220030822en00490064.pdf

http://europa.eu.int/comm/environment/noise/pdf/best_practice_guide.pdf

http://europa.eu.int/comm/environment/noise/pdf/wg_aen.pdf

In summary, there is an agreed approach to fulfilling the requirements of the Directive. The data envisaged under the Urban Audit should be the same as that collected under the Directive. That can be done now by asking cities whether they have collected the data on a voluntary basis for 2004. If a city does not have a noise map, we don't recommend estimating noise exposure simply by calculating the number of people living within a certain distance of a road or a railway.

Water (EN3)

Code	Variable	spatial unit	New	LCA
EN3003V	Total consumption of water	C, N		
EN3004V	Number of dwellings connected to potable drinking water system	C, N		
EN3006V	Number of dwellings connected to sewerage treatment system	C, N		
EN3008V	Number of water rationing cases, days per year	C		
EN3009V	Number of water cuts, days per year	C		
EN3010V	Price of a m ³ of domestic water (Euro)	C	x	
EN3011V	Percentage of the urban waste water load (in population equivalents) treated according to the applicable standard	C	x	

Total water consumption (cubic metres per annum) (EN3003V): Water abstracted which is no longer available for use because it has evaporated, transpired, been incorporated into products and crops, consumed by man or livestock, ejected directly to the sea, or otherwise removed from freshwater resources. Water losses due to leakages during the transport of water between the point or points of abstraction and the point or points of use are excluded. For the purpose of this data collection, total water consumption equals consumptive water use plus discharges to the sea.¹²

12) The definition is based on the concepts and definitions used in the OECD/Eurostat Joint Questionnaire (JQ) on the Environment, section Inland Waters (IW). This is Eurostat's main tool for water data collections, and it is the accepted world standard for water statistics. Other important water data collections such as the questionnaire used by the UN Statistical Division build on it, and further international harmonisation with other organisations such as UNEP, FAO and UN-ECE are currently on the way under the umbrella of the Water Statistics subgroup of the Intersecretariat Working Group on Environment Statistics (IWG-ENV).

Consumptive water use: Water abstracted which is no longer available for use because it has evaporated, transpired, been incorporated into products and crops, or consumed by man or livestock. Water losses due to leakages during the transport of water between the point or points of abstraction and the point or points of use are excluded.¹²

Dwellings: refers to conventional dwellings.

Sewerage treatment: connection to central sewerage network excluding individual cesspools.

Rationing cases: the number of days during which the consumption of water was rationed due to shortage (including hosepipe bans) affecting at least 10% of the population.¹³

Water cuts: the number of days where there was a scheduled or unscheduled cut in the central provision of water. Water cuts lasting less than 12 hours or affecting less than 10% of the population should be excluded.¹³

Price of a cubic metre of water from public water supply in the domestic sector(EN3010V): In case of different prices a central tendency (arithmetic mean, median, mode etc.) should be used.

Public water supply: water supplied by economic units engaged in collection, purification and distribution of water (including desalting of sea water to produce water as the principal product of interest, and excluding system operation for agricultural purposes and treatment of waste water solely in order to prevent pollution). It corresponds to division 41 (NACE/ISIC). Deliveries of water from one public supply undertaking to another are excluded.

Percentage of the urban waste water load (in population equivalents) treated according to the applicable standard: Wastewater is generated by private households and economic activities. To allow measurements to take place, wastewater from industry and other sources is expressed as “population equivalent”¹⁴ (**p.e.**). This term and others are defined in *EC Directive 91/271/EEC* concerning urban wastewater treatment.¹⁵

Urban waste water treatments:

Primary Treatment – the most basic level of treatment of wastewater. All urban areas in the Urban Audit are required to apply more stringent treatment standards.

Secondary treatment - treatment involving biological treatment with secondary settlement or other processes in order to remove organic matter from the wastewater.

13) The data in the UA2 database for this variable suggests an unclear definition. Some cities reported all cases (even if it was a few hour and affecting one street) some only major events. We considered the extent of change in the definition does not require dropping the old variable and introducing a new one. However, if you think it is necessary please send revised data for 2001.

14) One population equivalent (p.e.) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD5) of 60 g of oxygen per day.

15) Official Journal, L 135, 30/05/1991, p. 40-52 or web-site
http://europa.eu.int/comm/environment/water/water-urbanwaste/index_en.html

This standard is applicable to ‘normal areas’ as defined by the Directive in each country.

Tertiary treatment - more stringent treatment than secondary and includes the removal of some specific substances such as nitrogen and / or phosphorus, or some other specific pollutants from urban wastewater (e.g. bacteria through disinfection by ultra-violet light). This standard is applicable to ‘sensitive areas’ in each country. The whole country can be designated as a ‘sensitive area’. The Directive offers Member States different options for tertiary treatment standards in sensitive areas. Member State can choose to:

- (i) apply tertiary treatment for all agglomerations (cities) having the pollution load of more than 10,000 p.e. (i.e. apply Articles 5(2-3) of Directive 91/271/EEC), or
- (ii) to show overall reduction rate of 75% of total Phosphorus and total Nitrogen removal from all wastewater treatment plants discharging waste water into a designated sensitive area (i.e. apply Article 5(4) of Directive 91/271/EEC).

This means that in some cases, the level of treatment indicated in the table below may be higher than that legally required by the Directive. For the purposes of the Urban Audit, the standard indicated in the table below, should be the standard used for reporting the data.

Data on waste water treatment standards applied for each urban area can be obtained from the water treatment companies, local authorities or national Ministries of the Environment.

For details for all cities see the embedded Excel file.



Microsoft Excel
Worksheet

Waste Management (EN4)

Code	Variable	spatial unit	New	LCA
EN4001V	Annual amount of solid waste (domestic and commercial)	C, N		
EN4002V	Annual amount of solid waste (domestic and commercial) processed by landfill.	C, N		
EN4003V	Annual amount of solid waste (domestic and commercial) processed by incinerator	C, N		
EN4004V	Annual amount of solid waste (domestic and commercial) that is recycled	C, N		
EN4006V	Annual amount of solid waste (domestic and commercial) given to other disposal	C, N		

The data only refer to the waste flows managed (collected and treated) under the responsibility of the local administration including waste collected on behalf of the local authority by private companies or regional associations founded for that purpose.

Municipal waste according to the definition in the **OECD/Eurostat questionnaire on waste** includes household and similar wastes:

The definition also includes:

- bulky waste (e.g. white goods, old furniture, mattresses); and
- garden waste, leaves, grass clippings, street sweepings, the content of litter containers, and market cleansing waste, if managed as waste.

It includes waste originating from:

- households,
- Commerce and trade, small businesses, office buildings and institutions (schools, hospitals, government buildings).

It also includes:

- waste from selected municipal services, i.e. waste from park and garden maintenance, waste from street cleaning services (street sweepings, the content of litter containers, market cleansing waste), if managed as waste.

It includes collected waste from these sources:

- door-to-door through traditional collection (mixed household waste), and
- fractions collected separately for recovery operations (through door-to-door collection and/or through voluntary deposits).

For the purpose of the Urban Audit, municipal waste refers to waste defined as above, **collected by or on behalf of municipalities**.

The definition also includes waste from the same sources and similar in nature and composition which:

- are collected directly by the private sector (business or private non-profit institutions) not on behalf of municipalities (mainly separate collection for recovery purposes),
- originate from rural areas not served by a regular waste service, even if they are disposed by the generator.

The definition excludes:

- waste from municipal sewage network and treatment,
- municipal construction and demolition waste.

Hazardous waste defined according to Council Directive 91/689/EEC on hazardous waste separately collected from households, small enterprises and services in homogeneous fractions by public services, non-profit organisations and private enterprises acting in the field of “organised” (under license from municipal authorities) waste collection.

Landfill shall mean a waste disposal site defined according to Council Directive 1999/31/EC on the landfill of waste: landfill is defined as the deposit of waste into or onto land, including specially engineered landfill, and temporary storage of over one year on permanent sites. The definition covers both landfill in internal sites (i.e. where a generator of waste is carrying out its own waste disposal at the place of generation) and in external sites.

Incineration shall mean thermal treatment of waste in an incineration plant according to Council Directive 2000/76/EC on the incineration of waste:

An 'Incineration plant' means any stationary or mobile technical unit and equipment dedicated to the thermal treatment of wastes with or without recovery of the combustion heat generated. This includes the incineration by oxidation of waste as well as other thermal treatment processes such as pyrolysis, gasification or plasma processes in so far as the substances resulting from the treatment are subsequently incinerated.

Recycling: Recycling is defined as any reprocessing of material in a production process that diverts it from the waste stream, except reuse as fuel. Both reprocessing as the same type of product or for different purposes should be included. Direct recycling within industrial plants at the place of generation should be excluded.

Other waste treatment operations under the control of municipal authorities.

Land Use (EN5)

Code	Variable	spatial unit	New	LCA
EN5003V	Total land area (km2) according to cadastral register	C, L, S, N		✓
EN5015V	Water and wetland	C, L, N		
EN5012V	Green space area (km2)	C, L, S, N		
EN5016V	Land used for agricultural purposes	C, L, N		
EN5024V	Land used for commercial activities (industry, trade, offices)	C, L, N	x	
EN5004V	Land area in housing/residential use	C, L, N		
EN5025V	Land used for transport (road, rail, air, ports)	C, L, N	x	
EN5011V	Land area in recreational, sports and leisure use	C, L, N		
EN5026V	other land use	C, L, N	x	
EN5001V	Green space (in hectares) to which the public has access	C, L, S		
EN5103V	Residents of core city based on modelling	C	x	✓
EN5104V	Population in morphological city	C	x	✓
EN5105V	Population of the morphological city living in the core city	C	x	✓
EN5106V	Land area of core city based on modelling	C	x	✓
EN5107V	Land area of morphological city	C	x	✓
EN5108V	Land area of the morphological city within the boundaries of the core city	C	x	✓

Total land area: refers to the land area concept – territorial units: “It is recommended that the statistical definition of surface area is harmonised and that the area concept used be the land area concept, excluding lakes, rivers, and coastal seas. Mountainous regions, glaciers, forests, wetlands and other more or less uninhabitable regions should be included in the land area”. (see *Eurostat definition of LAND, Recommendations for a harmonised definition of calculation of surface area of territorial units, 1999 Edition*, p.13, 15, 17). The variable EN5003V applies this land area concept to the specified spatial unit, i.e. the land area of the city, larger urban zone or sub-city.

Table 2: Land cover / use correspondance

Urban Audit Variable Definition	Corresponds to LUCAS class(es)	Corresponds approximately to CORINE Land Cover class(es)
EN5015V: Water and wetland: Inland or coastal areas covered by water and flooded surfaces or likely to be so over a large part of the year	Land cover category G - Water and Wetland	4. Wetlands and 5. Water bodies
EN5012V: Green space area: Vegetated area within the total urban area	Land cover categories B – Cropland, C – Woodland, D – Shrub land, E – permanent grassland	1.4.1 Green Urban Areas 3. Forests and semi-natural areas but <u>excluding</u> 3.3. Open Spaces with little or no vegetation
EN5016V: Land used for agricultural purposes: Areas utilised for agricultural purpose	Land use category U11 Agricultural use	2. Agricultural Areas
EN5024V: Land used for commercial activities (industry, trade, offices)	Land use category U22 Industry and Manufacturing U34 Commerce, Finance, Business	1.1.1. Continuous Urban Fabric 1.2.1 Industrial or commercial areas
EN5004V: Land area in housing/residential use:	Land use category U37 Residential	1.1.2. Discontinuous Urban Fabric
EN5025V: Land used for transport (road, rail, air, ports)	Land use category U31.1 Railways U31.2 Roads U31.3 Water transport U31.4 Air transport	Class 1.2.2. "Road and rail networks and associated land" should be used as an approximation. 1.2.4. Airports 1.2.3. Ports
EN5011V: Land area in recreational, sports and leisure use:	Land use category U36 Recreation, Leisure, Sport	1.4.2. Sport and leisure facilities
EN5026V: Other land use	Land use category U32.1 Water supply and treatment U32.2 Waste treatment U40 Unused	Already included in 1.3.2. Dump sites 1.3.3. Construction Sites 3.3. Open spaces with little or no vegetation

EN5001V: Green space to which the public has access (hectares) refers to public parks and gardens, open-air sports facilities, and private agricultural areas and parks accessible and free of charge. Some parks that are free of charge to access contain significant areas that are not free (e.g. sports facilities). In these cases the figure might include 'chargeable' areas.

Travel and Transport (TT)

Travel Patterns (TT1)

Code	Variable	spatial unit	New	LCA
TT1003V	Percentage of journeys to work by car	C, L, N		
TT1010V	Percentage of journeys to work by public transport (rail, metro, bus, tram)	C, L, N	✖	
TT1006V	Percentage of journeys to work by motor cycle	C, L, N		
TT1007V	Percentage of journeys to work by bicycle	C, L, N		
TT1008V	Percentage of journeys to work by foot	C, L, N		
TT1011V	Percentage of journeys to work by motor cycle, bicycle, foot	C, L, N	<i>only for France</i>	
TT1012V	Percentage of journeys to work by car or motor cycle	C, L, N	✖	
TT1019V	Average time of journey to work (minutes)	C, L, N		
TT1020V	Average length of journey to work by private car (km)	C, L	✖	
TT1064V	People commuting into the city	C		
TT1065V	People commuting out of the city	C		
TT1069V	Number of stops of public transport	C, L	✖	
TT1083V	Number of buses (or bus equivalents) operating in the public transport	C, L	✖	
TT1084V	Average age of the bus (only buses) fleet	C	✖	
TT1085V	Proportion of buses running on alternative fuels	C	✖	
TT1066V	Length of public transport network (km)	C		
TT1077V	Length of public transport network on fixed infrastructure	C		
TT1078V	Length of public transport network on flexible routes	C		
TT1082V	Length of restricted bus lanes	C	✖	
TT1079V	Length of bicycle network (dedicated cycle paths and lanes)	C	✖	
TT1080V	Cost of a combined monthly ticket (all modes of public transport) for 5-10 km in the central zone	C	✖	
TT1081V	Cost of a taxi ride of 5 km to the centre at day time	C	✖	
TT1057V	Number of private cars registered	C, L, N		✓

TT1013V	Number of motor cycles registered	C, L, N	x	
TT1070V	Number of park and ride parking spaces	C, L	x	
TT1075V	Maximum charge of on-street parking in the city centre per hour	C	x	
TT1060V	Number of deaths in road accidents	C, L, N	x	
TT1061V	Number of persons seriously injured in road accidents	C, L, N	x	
TT1071V	Accessibility by air (EU27=100)	C, L		
TT1072V	Accessibility by rail (EU27=100)	C, L		
TT1073V	Accessibility by road (EU27=100)	C, L		
TT1074V	Multimodal accessibility (EU27=100)	C, L		

Transport: in general intra-urban and commuter transport is reported, not long distance trains for example.

Journey to work: refers to shortest trip (from place of residency to the work place, including change of transport mode) by commuters travelling to work places located within the boundary and should include trips by commuters not resident within the boundary but working within.

Average time: average time in minutes taken to travel between place of residence and work place. The work place must be located within the specified boundary while the place of residency might be anywhere, including across borders.

People commuting into the city area (TT1064V): residents of areas outside the city, whose employment location or client premises are within the city area.

People commuting out of the city area (TT1065V): residents of the city area, whose employment location or client premises are outside the city area.

Public transport: a network of buses, trains, tram etc. that run according to a planned time schedule and that anyone can use. The provider of the above mentioned services may be either the municipal authority or privately owned enterprises.

Number of stops of public transport The place of passenger embarkation /disembarkation. A stop used by several lines (for example a bus stop served by several buses) should be counted only once. A "station" with several stops should also be counted as one.

Number of buses (or bus equivalents) operating in the urban public transport. All operating (no reserves) urban public transport vehicles should be considered in calculating this figure: buses (including trolleybuses), minibuses, tramways, light rail, metro, suburban-regional railways, other modes (ferries, etc.) For all vehicles 30 passenger seats equals one bus. For example a "bendy bus" with 45 passenger seat equals 1.5 bus equivalents. If data is available only for the total passenger capacity of the bus (standees + seats), a capacity of 100 equals one bus.

Proportion of buses running on alternative fuels. Alternative fuel is a type of motor energy other than the conventional fuels, petrol and diesel. Alternative fuels include electricity, LPG, natural gas (NGL or CNG), alcohols, mixtures of alcohols with other fuels, hydrogen, bio-fuels (such as bio-diesel), etc. (This list is not exhaustive.) Alternative fuels do not include unleaded petrol, reformulated petrol or city (low-sulphur) diesel. Trolley buses should not be included.

Length of public transport network (TT1066V): sum of public transport lines taking care to avoid double counting, for example when several lines use the same road. If buses are running parallel to the tramway track this distance should be counted twice!

Length of public transport network on fixed infrastructure (km) (TT1077V): sum of public transport lines using fixed infrastructure: tramway, light rail, metro rail or suburban-regional rail.

Length of public transport network on flexible infrastructure (km) (TT1078V): sum of public transport lines using flexible infrastructure: buses, minibuses, trolleybuses or ferries.

Length of restricted bus lanes are defined as the length of bus lanes with physical separation from the rest of the traffic (possibly crossable). The length of bus lanes can be obtained from local authorities.

Length of bicycle network includes both dedicated cycle paths and cycle lanes.

Cost of a taxi ride of 5 km to the centre at day time In most cities there are several taxi service providers and the fee can depend on the waiting time (due to traffic jams) as well. This figure should be estimated using central tendencies. (for example: mean)

Motor Car: in the Urban Audit the definition of the “passenger car” should follow that of the Eurostat “Glossary for transport statistics” but exclude cars registered by enterprises ([*Eurostat \(2003\): Glossary for transport statistics – Document prepared by the Intersecretariat Working Group on Transport Statistics, p34*](#))

Passenger car: Road motor vehicle, other than a motor cycle, intended for the carriage of passengers and designed to seat no more than nine persons – including the driver. The term “passenger car” therefore covers micro-cars (need no permit to be driven), taxis and hired passenger cars, provided that they have fewer than ten seats. This category may also include pick-ups.

Car registrations: total number of private passenger cars registered (by natural persons, not business, enterprises, so no taxis or hire cars registered by enterprises) to addresses within boundary on the 1st of January of the reference year. This is the total stock of cars, not just new registrations. The statistical treatment of "scrap" cars (cars registered but no longer in use) differs from country to country. In the Urban Audit these cars should be excluded. If the figure includes these cars it should be stated in the footnote.

Motorcycle: Two-wheeled road motor vehicle with or without side-car, including motor scooter, or three-wheeled road motor vehicle not exceeding 400 kg (900 lb) unloaded weight. All such vehicles with a cylinder capacity of 50 cc or over are included, as are those under 50 cc which do not meet the definition of moped.

Number of park and ride spaces (the number of car or car equivalent parking spaces). Park-and-Ride does not differ structurally from the customary park establishments: parking lot, parking deck, multi-storey car park or basement garage. Parking establishments classified by the municipal authority as park and ride (the car park was planned to reduce central traffic flows) should be considered. If such a classification is not available than the substantial distinguisher should be the spatial proximity to a local public transport stop. Parking establishments located in the city centre should not be included. Storage possibilities are partly made available also for motorcycles. Motorcycle spaces should be converted to car equivalent spaces.

Maximum charge of on-street parking in the city centre per hour. All charges of bringing and parking the vehicle in the city centre should be considered (for example the Congestion Charge for London).

Person seriously injured in a road accident: Any person injured in a road accident who was hospitalized for a period of more than 24 hours. Road accidents are accidents involving at least one road vehicle in motion on a public road or private road to which the public has right of access, resulting in at least one injured or killed person. This includes: collisions between road vehicles; between road vehicles and pedestrians; between road vehicles and animals or fixed obstacles and with one road vehicle alone; collisions between road and rail vehicles. Only road accidents occurring within the boundaries of the city or LUZ should be taken into account.

Deaths in road accidents: People who were killed outright or who died within 30 days as a result of the accident. All Member States should follow the international standard of 30 days established by the ECMT (European Conference of Ministers of Transport, an OECD body) [*Glossary for transport statistics Document prepared by the Intersecretariat Working Group on Transport Statistics - 2003*](#)

Accessibility : Data source for this variable is the European Spatial Planning Observation Network (ESPON). The data correspond to the Potential Accessibility Indicators proposed by the Study Programme on European Spatial Planning (ESKELINNEN, H., FÜRST, F., SCHÜRMANN, C., SPIEKERMANN, K., WEGENER, M. (2002): *Indicators of Geographical Position.- Final Report of the Working Group "Geographical Position" of the Study Programme on European Spatial Planning.- Dortmund, IRPUD*).

Potential accessibility is based on the assumption that the attraction of a destination increases with size, and declines with distance, travel time or cost. Destination size is usually represented by population or economic indicators such as GDP or income. Accessibility to population is seen as an indicator for the size of market areas for suppliers of goods and services; accessibility to GDP as an indicator of the size of market areas for suppliers of high-level business services. Potential accessibility is founded on sound behavioural principles but contains parameters that need to be calibrated and their values cannot be expressed in familiar units." That is why the indicators are standardized to the average accessibility of the ESPON space. The method is described in more detail in BAPTISTE, H et. al. (2003) p. 163ff.

Information Society (IT)

Users and Infrastructure (IT1)

Code	Variable	spatial unit	New	LCA
IT1001V	Number of households with a PC	C, N		
IT1002V	Percent of population over 15 years who regularly use the Internet	C, N		
IT1005V	Percentage of households with Internet access at home	C, N		
IT1010V	Households with broad band access	C, N		

Definitions used in this domain are based on the [Methodological manual for statistics on the Information Society](#) implementation of Art. 5 of Regulation (EC) No 808/2004 of the European Parliament and of the Council of 21 April 2004 concerning Community statistics on the information society (OJ L143, 30.04.2004, p. 49)

Number of households with a PC. Personal Computers could be desktop computers (a computer that usually remains fixed in one place) portable computers (laptop) or handheld computers (palmtop).

Percent of population over 15 years who regularly use the Internet: proportion of individuals using the Internet at least once a week

Percentage of households with Internet access at home. If any member of the household has access to the Internet at home, regardless of whether it is used, the household is considered as having access to the Internet at home. 'Access' does not refer to the "connectability" (i.e. can connections be provided in the households' area or street), but to whether anyone in the household could use the Internet at home if desired, even if just to send an e-mail. The devices used to access the Internet could be desktop computer, portable computer (laptop), TV set with specific Internet device (e.g. digital TV or set top box), Internet enabled games console, Internet enabled mobile phone (WAP, GPRS, UMTS, etc.) or handheld computer (palmtop, PDA). The clause 'regardless of whether it is used' will in most cases be irrelevant as households will normally make use of a service they have subscribed to (and are paying for). It is however possible that the connection was installed by one of the household members' employer or is a default facility in the building where the family is living (without actually being used).

Households with broad band access. Internet connections – like DSL (Digital Subscriber Line)– which are significantly faster than dial-up access are designated as broadband. DSL (e.g. ADSL, SHDSL etc.) stands for technology that transports data at high speeds (i.e. equal to or higher than 144 kbit/s) over the existing copper network. Important DSL technologies include: ADSL, where more bandwidth is allocated to download than upload

(Asymmetric DSL). SHDSL: Single pair high-speed DSL covers symmetric high speed DSL. Other broadband connection (e.g. cable, UMTS, etc.):

- Cable modem: This technology allows high-speed Internet access to be delivered over a cable TV network or communal aerial systems. Like DSL technologies the data is transported over the existing copper network.
- LAN (Local Area Network): High-speed Internet connections via housing networks (connections common to several households, e.g. residents in a college).
- Fibre optic cable: A technology which is not based on copper wire. The technology uses lasers or light emitting diodes and can provide unlimited bandwidth potential.
- Fixed wireless technologies (FWA): Technologies in this group are all wireless technologies that provide access between fixed points.
- Satellite technologies: Provides wireless access and are predominantly used in remote areas not reached by cable or DSL networks.

Local e-Government (IT2)

Code	Variable	spatial unit	New	LCA
IT2001V	Official city Internet web site (Yes/No)	C		
IT2005V	Number of visits to official city Internet web site (daily)	C	*	
IT2003V	Number of administrative forms available for download from official web site	C		
IT2004V	Number of administrative forms which can be submitted electronically	C		

Official city Internet website (IT2001V): any website provided by the local government to promote the city and/or provide services to the residents. (1=yes/0=no))

Website Visits (IT2005V): Definition of "visit": all the actions that a visitor to a web site performs, from the first hit to the last hit. A visit is considered to have ended when the visitor has not performed any actions within a time interval of 30 minutes. Multiple visits per visitor have to be counted. Most of the software tools used to analyse web logfiles use similar definitions.

Administrative forms (IT2003V, IT2004V): forms that have to be filled in by the residents in order to request specific services/documents provided by their local government such as birth certificates, planning permissions, etc.

ICT sector (IT3)

Code	Variable	spatial unit	New	LCA
IT3001V	Number of local units manufacturing ICT products	C, N		
IT3002V	Number of persons employed in manufacture of ICT products	C, N		
IT3003V	Number of local units providing ICT services	C, N		

IT3004V	Number of persons employed in provision of ICT services	C, N		
IT3005V	Number of local units producing content for the Information Society	C, N		
IT3006V	Number of persons employed in production of content for the Information Society	C, N		

Please note: Data for IT3002V, IT3004V and IT3006V should be workplace based.

Information and Communication Technologies (ICT): the technologies involved in the recording, storage and sending out of information (using computers, telecommunication devices, etc)

Local units: the local unit is an enterprise or part thereof (e.g. a workshop, factory, warehouse, office, mine or depot) situated in a geographically identified place (for our purposes within the specified boundary). Economic activity is carried out by one or more persons (even if only part-time) for one and the same enterprise at or from this place – save for certain exceptions. It is difficult to use different data sources for IT3001V (number of local units manufacturing ICT products) and IT3002V (number of persons employed in manufacturing ICT products). Detailed descriptions of the definitions applied should be given in footnotes.

ICT products, services and content: the activities of the enterprises that are involved in the ICT sector as well as of those creating the information (the so-called “content” enterprises) are classified according to NACE Rev. 1.1. For “Content production” the broad description has been applied, as in Statistics Finland: “On the Road to the Information Society II” (1999).

Table 3: Classification of the activities of the ICT industries using NACE rev. 1.1

Code	Production of information goods
30	Manufacture of office machinery and computers
31.3	Manufacture of insulated wire and cable
32	Manufacture of radio, television and communication equipment and apparatus
33.20	Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
33.30	Manufacture of industrial process control equipment
	Production of information services
51.43	Wholesale of electrical household appliances and radio and television goods
51.84	Wholesale of computers, computer peripheral equipment and software
51.85	Wholesale of other office machinery and equipment
51.86	Wholesale of other electronic parts and equipment
51.87	Wholesale of other machinery for use in industry, trade and navigation
64.20	Telecommunications
72	Computer and related activities
	Content production
22	Publishing, printing and reproduction of recorded media
73	Research and development
74.13	Market research and public opinion polling
74.14	Business and management consultancy activities
74.40	Advertising
74.85	Secretarial and translation activities
74.86	Call centre activities
92.1	Motion picture and video activities
92.20	Radio and television activities

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92.3	Other entertainment activities
92.40	News agency activities
92.5	Library, archives, museums and other cultural activities

Culture and Recreation (CR)

Culture and Recreation (CR1)

Code	Variable	spatial unit	New	LCA
CR1003V	Number of cinema seats (total capacity)	C		✓
CR1005V	Cinema attendance (per year)	C		
CR1006V	Number of museums	C		
CR1007V	Number of museum visitors (per year)	C		
CR1008V	Number of theatres	C		
CR1013V	Number of theatre seats	C		
CR1009V	Theatre attendance (per year)	C		
CR1010V	Number of public libraries (all distribution points)	C		
CR1011V	Number of books and other media loaned from public libraries (per year)	C		
CR1014V	Number of persons employed in the culture and entertainment industry	C	x	

Museums: public and private museums.

Theatres: public or private registered venue (not street theatre, school theatres etc.). If multiple purpose venues are included, this is marked in the footnote (free-format text). The intention of this variable is to know about the number of locations within the city, not the individual halls/scenes (one theatre may have a musical/opera scene, intimate play scene etc.).

Books and/or other media loaned: the number of books and/or other media (CD, DVD, Videos etc) issued for loan by public libraries located within the specified boundary.

Number of public libraries (CR1010V) includes counting of all distribution points, even if there are several libraries in the same building. Target of this variable is to know about the publicly accessible general libraries, where you do not need to be a member of an association or to be a student. Libraries of very specific subjects or subject related research libraries are not included. A source for information is *INTAMEL Metro* = International Association of metropolitan Libraries, that is part of IFLA = International Federation of Library Associations and Institutes (www.ifla.org).

Number of persons employed in the culture and entertainment industry:

Employment (workplace based) in cultural activities is calculated from six 3-digits NACE Rev. 1.1 codes, one 4-digit NACE code, adding employment in Architectural activities (included in NACE 74.2). The following codes are selected:

- 22.1 Publishing
- 92.1 Motion picture and video activities
- 92.2 Radio and television activities
- 92.3 Other entertainment activities
- 92.4 News agency activities

92.5 Library, archives, museums and other cultural activities

52.47 Retail sale of books, newspapers and stationery

Architectural activities included in 74.20 Architectural and engineering activities and related technical consultancy

Tourism (CR2)

Code	Variable	spatial unit	New	LCA
CR2001V	Total annual tourist overnight stays in registered accommodation	C, N		✓
CR2009V	Number of available beds	C, N		
CR2102V	Number of available beds at high season	C, N	✗	
CR2103V	Number of available beds at low season	C, N	✗	
CR2104V	Total tourist overnight stays in registered accommodation at high season	C, N	✗	
CR2105V	Total tourist overnight stays in registered accommodation at low season	C, N	✗	
CR2004V	Number of air passengers using nearest airport	C		
CR2005V	Number of air passengers using nearest airport: Total arrivals	C		
CR2006V	Number of air passengers using nearest airport: Domestic arrivals	C		
CR2007V	Number of air passengers using nearest airport: Total departures	C		
CR2008V	Number of air passengers using nearest airport: Domestic departures	C		

Tourist Overnight Stays: business and recreational overnight stays by tourists in registered accommodation, located within the specified boundary.

Number of available beds: determined by the number of persons that can stay overnight in the beds set up in the registered accommodations; not in camp grounds.

High/Low seasons depend on the region or even the locality. For the purposes of the Urban Audit the month when the highest number of beds are available will be considered as high season and the month when the lowest number of beds are available will be considered as low season. The high/low seasons should be identified for each city individually.

Regulation (EC) N°1358/2003, implementing Regulation N°437/2003 of the European Parliament and of the Council on statistical returns in respect of the carriage of

passengers, freight and mail by air, mentions three datasets: the Flight Stage dataset, the On Flight Origin/Destination dataset, and the Airport dataset. These data sets will be used to extract data for air transport variables of the Urban Audit. Definitions used are based on [Reference Manual on Air Transport Statistics version 2](#).

As a first step Eurostat will establish a list of airports located within 100 km from each UA city. This list will be sent out for comments to NUACs. On the basis of the revised list a link will be established between each UA city and the airports, for which Eurostat collects data under the regulation. Afterwards the data for the listed airports will be extracted and aggregated for all UA cities. If the list is considered incomplete – due to small airports which do not have a reporting obligation and therefore data is not available at Eurostat – NUACs should provide the data themselves.

Nearest airport: Airports located within 100 km from the city should be taken into account (reachable in about 1 hour - by private or public terrestrial transport). If the city can be reached by more than one airport within this range, the number of passengers from all airports is summed up. The city is the object of observation, not the airport.¹⁶

Air Passengers: air origin/destination passengers using the nearest airport to the City. The concept used here is 'passengers carried' – i.e. all passengers on a particular flight counted only once and not repeatedly on each individual stage of that flight – excluding this way direct transit passengers – passengers who, after a short stop, continue their journey on the same aircraft on a flight having the same flight number as the flight on which they arrive. For national figures, total air passengers using airports in the Member State are reported. Domestic departures/arrivals refer to passengers travelling to or from destinations within the Member State.

16) In order to be able to use centrally available data sources the definition of "nearest airport" has been changed, emphasizing the distance in terms of km instead of time.

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