SDMX GuIDElines

Guidelines for THe
creation and management OF
code list CL\_ORGANISATION

Version 1.0

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# DOCUMENT HISTORY

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# INTRODUCTION

This guideline describes a method to build and maintain code lists for "organisations" in a broad sense, and is designed to support SDMX cross-domain concepts such as:

* "**Compiling agency**", i.e. the organisation collecting and/or elaborating the data being reported;
* "**Contact organisation**", i.e. the organisation of the contact points for the data or metadata;
* "**Data provider**", i.e. the organisation or individual that reports or disseminates data or reference metadata;
* "**Dissemination agency**", i.e. the organisation disseminating the data being reported;
* "**Reporting agency**", i.e. the organisation that supplies the data for a given instance of the statistics[[1]](#footnote-1).

Analysis showed that constructing a single cross-domain code list covering all organisations for all use cases would be too difficult to maintain, considering that it would cover all possible national and international agencies, and other organisations and bodies. Therefore, the goal of this guideline is to support the harmonisation of specific code lists, facilitating the usability of the code lists across domains, and simplifying mapping and transcoding of data.

As SDMX implementations increase in number, specific or shared code lists of "organisations" will be made available in SDMX registries, and by harmonising the codification of these code lists, it is hoped to promote reusability of information and reduce the burden on implementers. However, in cases where several code lists are combined into one single code list (e.g. national statistical agencies and international organisations), it is essential to avoid code and name duplicates from the use of multiple coding systems.

These guidelines provide a mechanism for harmonisation and coding. They also provide information on linkages between the CL\_AREA[[2]](#footnote-2) and CL\_ORGANISATION codings.

These guidelines describe (as far as possible) a systematic, deterministic method of building codes. The method aims to avoid creating duplicate codes for different agencies, and creating different codes for the same agency. An alternative method was considered to create codes based on semantic meaning (e.g. based on acronyms of the agencies), but this was rejected as it does not provide adequate guidance to the code maintainer, is not in any way deterministic, and does not meet the aims explained above. By not including the organisation name in the code, the method proposed here also avoids creating codes that are excessively long.

Several maintenance agency codes already exist in the SDMX Global Registry that do not follow the syntax in these guidelines, e.g. for OECD, ESTAT, ECB. The codes were created before these recommendations, and it is not meant that those codes should retroactively change. It is up to the ownership groups of the artefacts to decide on a case-by-case basis.

# **GUIDELINES FOR THE CREATION OF CODES**

The guidelines are divided into four sections: section 1 deals with national organisations, section 2 deals with international and other organisations, section 3 describes a procedure for updating the coding system, and section 4 shows the approach for linking CL\_AREA and CL\_ORGANISATION code lists.

## **National organisations**

### Code identifiers/syntax

The syntax for code identifiers is made of several distinct elements which can be schematically represented as follows:

 **AA(A)(0)\***

where AA(A) is an ISO 3166-1 alpha-2 or alpha-3 code, or a UN M49 code. This information is mandatory.

where (0)\* is a mandatory positive integer used to indicate the type of organisation, based on the classification presented in Annex 1. The asterisk indicates that the integer is not limited to one digit.

The numbering system starts at 1 but is not sequential to allow for the grouping of similar organisations.

To see ways that the syntax can be implemented, view section “Coding examples” below.

In case there is a need for a deeper breakdown, for example:

1. to distinguish between institutions where several organisations of the same type are listed (e.g. United States decentralised statistical agencies),
2. See the 1c. coding examples (US1\_1, US1\_2) table for examples of the notation.to accommodate for regional or local extensions (e.g. German regional statistical agencies under the Federal Statistical Office),

See the 1c. coding examples (DE1\_010, DE1\_020, DE1\_011, DE1\_021) table for examples of the notation.

**Sub-elements** may be added as follows:

 **AA(A)(0)\*(\_0)\***

where (\_0) addresses use cases a) and b) above. (\_0) is an optional positive integer. The numbering system will start at 1 or 01 or 001, etc., depending on the expected number of sub-organisations and with a view to allow for proper sequential sorting in case more than 10 or 100 sub-organisations respectively are concerned.

Further details/hierarchies may be required and the number of segments is unlimited (as denoted by the asterisk symbol) e.g. for indicating a directorate, a division, a department, a unit within one organisation.

See the 1c. coding examples (BG4\_1, BG4\_2, DE1\_011, DE1\_021) table for examples of the notation.

Usually information regarding the organisation’s structure of the sender/compiler is stored in the data file header or metadata. There is therefore no need to duplicate the information in a code list.

In case there is a need for an aggregation, e.g. listed old organisational breakdowns are merged into a single organisation.

**Aggregations** may be added as follows:

 **AA(A)(0)\*B**

where B indicates a trailing letter aggregation (see Annex 3).

### Code descriptions

The structure proposed is the following: Name in English followed by the abbreviation (if any) (between brackets) and the name of the country (also in English) (between brackets), except in cases where the country name or adjective is already mentioned in the official name of the organisation (e.g. Anguilla Statistics Department, Bulgarian National Bank). If no official name in English can be found on the official website of the organisation, a translation in English is to be provided.

### Coding examples

|  |  |  |
| --- | --- | --- |
| **Code** | **Name:en** | **Name:xx (xml language code)** |
| BE1 | Belgium Statistical Office (STATBEL) | fr:Office belge de statistique (Statbel)nl:Belgische statistiekbureau (Statbel)de:belgisches Statistikamt (Statbel) |
| BE2 | National Bank of Belgium (NBB) | fr:Banque nationale de Belgique (BNB)nl:Nationale Bank van België (NBB)de:belgische National Bank (BNB) |
| BG1 | National Statistical Institute (NSI) (Bulgaria) | bg:Национален статистически институт (НСИ) (България) |
| BG2 | Bulgarian National Bank (BNB) | bg:Българска народна банка (БНБ) |
| BG4 | National Revenue Agency (Bulgaria) | bg:**Национална агенция за приходите (НАП)** |
| BG4\_1 | National Revenue Agency (Bulgaria) – Directorate A |  |
| BG4\_2 | National Revenue Agency (Bulgaria) – Directorate B |  |
| BI1 | Burundi Institute for Statistics and Economic Studies (ISTEEBU) | fr:Institut de statistiques et d’études économiques du Burundi (ISTEEBU) |
| BO1 | National Institute of Statistics (INE) (Bolivia) | es:Instituto Nacional de Estadística (INE) (Bolivia) |
| DE1 | Federal Statistical Office (Germany) | de:Statistisches Bundesamt (Destatis) |
| DE1\_010 | Federal Statistical Office Region 1 |  |
| DE1\_020 | Federal Statistical Office Region 2  |  |
| DE1\_011 | Federal Statistical Office Region 1 – Substructure 1 |  |
| DE1\_021 | Federal Statistical Office Region 2 – Substructure 1 |  |
| GR1 | Hellenic Statistical Authority (EL.STAT)  | el:Ελληνική Στατιστική Αρχή (ΕΛΣΤΑΤ.) |
| RS1 | Statistical Office of the Republic of Serbia | sr-Cyrl:Република Српска - Републички завод за статистику sr-Lat:Republika Srbija - Republički zavod za statistiku |
| US1\_1 | Bureau of Economic Analysis (BEA) (USA) | Bureau of Economic Analysis (BEA) (USA) |
| US1\_2 | Bureau of Justice Statistics (USA) | Bureau of Justice Statistics (USA) |

## **International and other organisations**

### Code identifiers/syntax

 **NA0(000)**

where N is a mandatory prefix in the form of up to two digits [1...99] to be used to indicate a specific group of institutions. The abbreviations for these organisations are listed in Annex 2.

where A is a mandatory one to four-letter value [A-Z] standing for the abbreviation of the international or other organisation.

where **0**(000) is a mandatory positive integer with up to 4 digits [0-9] that indicates the further levels of the hierarchies in the institutions with 0 representing the upper level or the institution itself.

**Sub-elements** may be added as follows:

**NA0(000)(\_X)**

where X describes a substructure within the organisation. X is an alphanumeric string, prefixed with an underscore. This extension is optional.

Example: “International organisation for Fun” coded FUN, with substructure “Toys” coded T

 9FUN1\_T

**Aggregations** may be added as follows:

 **NA0(000)B**

where B indicates a trailing letter aggregation (see Annex 3).

To see ways that the syntax can be implemented, view section “Coding examples” below.

### Code descriptions

The structure proposed is the following: the abbreviation (if any) followed by the name in English (between brackets). If no official name in English can be found on the official website of the organisation, a translation in English is to be provided.

### Coding examples

|  |  |  |  |
| --- | --- | --- | --- |
| **Code** | **Name:en** | **Name:xx** | **Parent code** |
| 1A0 | International organisations |  |  |
| 1B0 | UN organisations |  |  |
| 1C0 | IMF (International Monetary Fund) |  |  |
| 4J80 | Other European Community Institutions, Organs and Organisms |  |  |
| 4J810 | Agency for the Cooperation of Energy Regulators |  | 4J80 |
| 4J8100 | European Centre for Disease Prevention and Control |  | 4J80 |
| 4J8110 | European Centre for the Development of Vocational Training |  | 4J80 |
| 4J8120 | European Chemicals Agency |  | 4J80 |
| 4J8130 | European Data Protection Supervisor |  | 4J80 |
| 6R0 | PALOP (Portuguese-speaking African Countries) | pt:Países Africanos de Língua Oficial Portugues |  |

## **Procedure for updating the organisation types**

Implementers wishing to use this syntax and requesting the addition of a new code in the classification of organisation types are invited to contact the SDMX Statistical Working Group (SWG) at this address: swg@sdmx.org. The request will be duly analysed by the SWG for inclusion in the next revision of these guidelines.

Implementers constructing "sectorial" code lists (e.g. code lists of ministries of justice) based on the present guidelines are also invited to send these code lists to the SWG for review and subsequent dissemination via SDMX registries for promoting their reuse.

## **Linkage of the AREA and ORGANISATION code lists**

In some data exchanges, a Codelist may need to contain both reference area and organisations. In order to increase efficiency in data exchange and mapping it is advised to use the CL\_ORGANISATION coding.

# ANNEX 1: CLASSIFICATION OF NATIONAL ORGANISATIONS BY TYPE

The syntax and the classification of organisation types can be used in combination to create specific code lists of organisations. However, one of the basic principles on which SDMX is built is reusability of artefacts. As a consequence it is recommended to maintain distinct code lists for each type of organisation so that implementers can reuse existing code lists and possibly combine them would the need arise. Such distinct code lists will be made publicly available via the [SDMX Global Registry](https://registry.sdmx.org/FusionRegistry/).

A typical change management issue occurs when organisations change name or scope. These guidelines do not attempt to describe a methodology to handle this case, mainly because the general issue is much broader than organisations and applies to many different types of codelists that describe entities.

If the composition of the structure of organisations changes one could consider using the aggregation rules explained in annex 3, or if more granular composition is required, then one could use the syntax explained in section 1a sub-elements.

Codes 1 to 8 are single numbers kept for preserving the legacy of the Codes previously implemented all over the world.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Final digit in SYNTAX AA(A)0(0) | Organisation type | Also includes the the following competencies  | Examples  | COFOG Code | COFOG Name |
| 1 | Statistical Office |  | Statistical Services or AuthorityInstitute of StatisticsBureau of Statistics | GF0132 | Overall planning and statistical services |
| 2 | Central Bank |  | National Bank |  |  |
| 3 | Customs and Excise  | Indirect taxes | Customs Agency |  |  |
| 4 | Finance, Budget, Treasury | Taxation, treasury | Ministry of FinanceTax Agency | GF0112 | Financial and fiscal affairs |
| 5 | Economic affairs | Economic development | Ministry of Economy | GF04 | Economic affairs |
| 6 | Financial supervision  |  |  |  |  |
| 7 | Financial regulation  |  |  |  |  |
| 8 | Economic and social research | Economic growth analysis  | University of EconomicsInstitute for Economic and Growth Analysis  |  |  |
| 10 | Agriculture, food, fisheries, forestry | Rural development, forestry, animal rights, agricultural research, fishing, aquaculture | Ministry of Agriculture and FoodInstitute of Agricultural Research and rural economyAgency for Fisheries | GF042 | Agriculture, forestry, fishing and hunting |
| 20 | Head of Government’s Office | President’s Office, Vice-President’s Office, Prime Minister’s Office, State chancellery | Chancellery of the Prime Minister |  |  |
| 30 | Infrastructure, public works | Housing, construction, public works, buildingurban development, urban audit, public utilities | Ministry of Infrastructure and TransportWater Management AuthorityDepartment of HousingRoad Directorate | GF06GF106GF063GF064 | Housing and community amenitiesHousingWater supplyStreet lightening |
| 40  | Education | National education,learning educational research and development,Youth | Ministry of Education, Youth and TrainingEducational Development Institute | GF09 | Education |
| 50 | Research and technology, innovation, higher education | Research and development, science, patents, trademarks, intellectual property  | Ministry of Science, Research, Innovation and Higher Education | GF014 | Basic research |
| 60 | Energy | Mining and oil, energy transmission (electricity),  | Ministry of EnergyEnergy AgencyNational Electricity Transmission Operator  | GF043GF044 | Fuel and energyMining, Manufacturing and Construction |
| 70 | Environment | Environmental protection, climate, sustainable development, ecology, nature conservation, natural resources, waste management, geology, meteorology, spatial planning | Ministry of Energy and ClimateEnvironmental Protection Agency  | GF05 | Environmental protection |
| 80 | Foreign Affairs, international cooperation, development | International cooperation, foreign trade, development cooperation, humanitarian affairs | Ministry of Foreign Affairs | GF12GF0113 | Foreign economic aidExternal affairs |
| 90 | Health | Epidemiology, public health, welfare, occupational health | Ministry of HealthCentre for disease preventionPublic Health Agency Institute of Occupational Diseases | GF07 | Health |
| 100 | Social protection | Social security, social insurances | Social Security Institute | GF10 | Social protection |
| 110  | Labour and working conditions | Employment, Unemployment, working environment, accidents at work | Ministry of Labour and Social AffairsMinistry of EmploymentEmployment Agency | GF041GF105 | General economic, commercial and labour affairsUnemployment |
| 120 | Social Affairs | Social policy, solidarity, family, disability | Ministry of Family and Social PolicyMinistry of Solidarity |  |  |
| 130  | Public AdministrationGeneral affairs | Planning, administrative reform, civil service, human resources, public expenditures | Department of General Administration | GF0131 | General personnel services |
| 140  | Consumer Protection, food safety | Food chain safety | Food and Veterinary AuthorityConsumer protection Agency |  |  |
|  |  |  |  |  |  |
| 150  | Interior and Home Affairs | Internal affairs | Ministry of the InteriorMinistry for Home Affairs |  |  |
| 160  | Defense | National security, armed forces |  | GF02 | Defence |
| 170  | Police and Border Guard  | Police services, police force, police authority coast guard, border guard | National Police AuthorityState Border Guard  | GF031 | Police services |
| 180 | Population, Migration, Asylum | Immigration, Refugee, Citizenship, Migration, Asylum | Agency for MigrationAgency for Refugees |  |  |
| 190  | Justice, Equality | Crime prevention, public order, citizen’s protection, gender equality | Ministry of JusticeMinistry of Equality | GF033 | Law courts |
| **200** | Industry, trade and business | Industry, trade, Enterprises, SMEs | Ministry of Industry and TradeDepartment of Business and Industrial strategy |  |  |
| **210** | Culture, Tourism and Sports | Arts, cultural heritage, religion | Ministry of Culture, Tourism and Sports | GF08GF081GF082 | Recreation, culture and religionRecreational and sporting servicesCultural services |
| 220 | Maritime affairs | Maritime economy, Maritime administration  | Ministry of Maritime Economy AffairsMaritime Administration |  |  |
| 230  | Transport  | Mobility, transport regulation, transport authorities, transport infrastructure, traffic, road safety | Ministry of TransportsTransport Authority  | GF045 | Transport |
|  |  |  |  |  |  |
| 240 | Ports and airports | Port and airport authority  | National Ports or Airports Authority |  |  |
| 250  | Communications regulation | Postal services, Telecommunications, media | Communications and Postal Regulation Authority | GF046 | Communication |
| 260 | Chemicals regulation | Chemicals regulation authority | Chemicals Agency |  |  |
| 270  | Energy regulation | Energy regulation authority | Energy Regulatory Authority |  |  |
| 280  | Other National Authority | Other National Authority |  |  |  |
|  |  |  |  |  |  |
| 300  | Non-governmental organisations (NGOs) |  |  |  |  |
| 310  | Professional and business associations |  |  |  |  |

In case of mixed ministries it is recommended to classify the whole organisation under the first competence displayed in the title,

e.g.

Ministry of Energy and Environment would be classified under Ministry of Energy.

Ministry of infrastructure and Transport would be classified under Ministry of Infrastructure

This list is not exhaustive. The procedure for adding new entries is described under section 3 “Procedure for updating the organisation types” above.

# ANNEX 2: CLASSIFICATION OF INTERNATIONAL AND OTHER ORGANISATIONS BY TYPE

|  |  |
| --- | --- |
| digit PREFIX in SYNTAX NA(A)0(000) | Organisation type |
| \_T | All international organisations |
| 1 | UN organisations |
| 4 | European Community Institutions, Organs and Organisms |
| 5 | Other International Organisations (financial) |
| 6 | Other International Organisations (non-financial) |
| 9 | Other Organisations (including private organisations) |

“Other Organisations” may include commercial data providers, and private research institutions.

A version of the international organisations code list will be made publicly available via the [SDMX Global Registry](https://registry.sdmx.org/FusionRegistry/).

# ANNEX 3: AGGREGATION OF ORGANISATIONAL STRUCTURES

In order to code aggregation of historical breakdowns in an organisation one can use the different conventions ruling non-hierarchical aggregations.

Non-standard aggregations occur within hierarchical classifications. This may involve concepts that do not have a common ancestor in the classification, or are defined at different levels.

The below examples are not limited to the aggregation for organisational structures but are general aggregation coding practices that can be used for different concepts from different domains.

There are four possible conventions with respect to non-hierarchical aggregations.

1. Enumeration coding.

**Example**

|  |  |
| --- | --- |
| Concept  | Code  |
| D42+D43+D44+D45  | D42\_D43\_D44\_D45  |
| D6311+D63121+D63131  | D6311\_D63121\_D63131  |
|  |  |

The enumeration coding solution is the most complete and explicit in terms of understanding the underlying concepts. However, in the example above it is easy to see that the resulting codes easily become long and cumbersome to use. More importantly, as the only special character allowed is the underscore character the SDMX coding convention suggests the use of the underscore as an addition operator.

1. Expression coding

**Example**

|  |  |
| --- | --- |
| Concept  | Code  |
| D9+NP  | D9ANP  |
|  |  |

Expression coding is a solution when the parts of the non-hierarchical aggregation do not belong to the same tree. The current convention is to employ the letter A to mean addition. It is possible in expression coding to use the underscore character.

1. Range coding

**Example**

|  |  |
| --- | --- |
| Concept  | Code  |
| D42+D43+D44+D45  | D42T5 |

Range coding can **only** be applied to concepts that are within the same subtree of the classification hierarchy. The convention uses the **underscore** character “\_” to denote it is a range concept rather than an enumeration. Range coding, if it is applied to the same level in the classification, is highly economical, because the end of the range can be unambiguously indicated by the last digit of the last code in the range. (E.g. D42\_5).

1. Trailing letter coding

Example:

|  |  |
| --- | --- |
| Concept  | Code  |
| AT11 +AT12 +AT13 +AT14  | AT1K |

Trailing letter coding is the most efficient way to define non-hierarchical aggregates within the hierarchy. It requires that all concepts captured by it belong to the same branch of the hierarchy. Because it allows for alternative non-hierarchical aggregates at the same level and does not require adjacent codes as is the case of the range coding convention, thus it is more flexible than range coding. When non-hierarchical aggregates exist that belong to the same branch in the hierarchy, but exist at different levels, then the letter code is applied at the highest level of the items in that aggregation.

The choice of the trailing letter can be important. For instance, if only a single non-standard aggregation exists at a specific level, a coding similar to the SDMX generic codes could be used. For example, N: Non response, O:Other, or U:No data/unknown.

Sometimes the demands of the variety of data flows covered exceed the available number of letters. In cases that available letters do not exist, the convention is to add a second letter. It is then still clear that a non-standard aggregate is indicated, and what its position is in the hierarchy.

The conventions that are recommended when coding aggregates for organisational units are (in the order of sequence of preference)

1. Trailing letter coding

2. Range coding

3. Expression coding

Enumeration coding is not recommended.

1. For more details about these concepts consult the SDMX Glossary, version 2.1 (<https://sdmx.org/?page_id=4345>) [↑](#footnote-ref-1)
2. Code list for geographical areas (<https://sdmx.org/?page_id=3215>) [↑](#footnote-ref-2)