



SDMX as a good practice for statistical data sharing under INSPIRE

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Objective

- *Promote SDMX as a good practice for HH/PD data dissemination*

Advantages

- *Statistical data are stored in a structured harmonized approach.*
 - **Code list are stored in dedicated registries. By using SDMX data directly for INSPIRE several advantages are achieved: e.g. usage of semantically harmonized data, storing and updating data only once and leaving data at its source**
- *avoidance of duplication of transformation, synchronization issues across datasets, publishing*
- *machine to machine readable data.*

SDMX

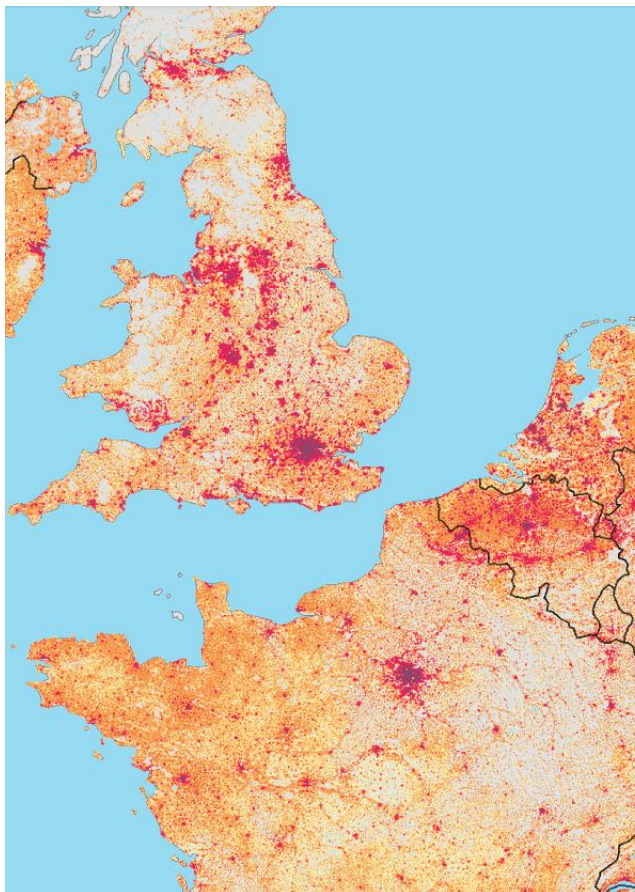
SDMX, which stands for Statistical Data and Metadata eXchange is an ISO standard (17369:2013).

designed to describe statistical data and metadata, to normalise their exchange, and to enable them to be shared more efficiently among organisations.

SDMX has three key components:

- I) a information model to describe data and metadata;*
- II) a standard for automated communication and*
- III) an IT architecture and set of tools for data and metadata exchange.*

Census 2021 Grid Based Statistics -> INSPIRE



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ANNEX II

Programme of the statistical census data geocoded to the 1 km² reference grid referred to in Article 5

The programme of the 1 km² grid data to be transmitted for the reference year 2021 shall consist of one two-dimensional table that cross-tabulates the set of grid cells **GEO.G.** defined in Annex I against the following selection of categories from the census topic breakdowns specified in Annex I:

Census topic categories to be broken down on the 1 km ² reference grid		STAT.G.
0.	SEX.0.: Total population	0.
1.	SEX.1.: Male	1.
2.	SEX.2.: Female	2.
3.	AGE.G.1.: Under 15 years	3.
4.	AGE.G.2.: 15 to 64 years	4.
5.	AGE.G.3.: 65 years and over	5.
6.	CAS.L.1.1.: Employed persons ⁽¹⁾	6.
7.	POB.L.1.: Place of birth in reporting country	7.
8.	POB.L.2.1.: Place of birth in other EU Member State	8.
9.	POB.L.2.2.: Place of birth elsewhere	9.
10.	ROY.1.: Place of usual residence one year prior to the census unchanged	10.
11.	ROY.2.1.: Place of usual residence one year prior to the census: move within reporting country	11.
12.	ROY.2.2.: Place of usual residence one year prior to the census: move from outside of the reporting country	12.

⁽¹⁾ Data on the category 'employed persons' shall be transmitted as far as possible, subject to availability in the transmitting Member State.



Eurostat's involvement

- *Responsible for Census regulation on population grids*
- *INSPIRE compliant Census Grid important pilot for integration of statistical and geospatial information*
- *SDMX sponsor and user*
- *Implements and uses tools to support SDMX data exchanges (e.g. Census Hub)*

Proposal to the MIG for endorsement

- *Reference implementations at various organisations*
- *Commercial and open source implementations are available*
- *Statistical offices in various EU Memberstates use it already in production for data dissemination and visualisation (OSKARI(FI), STAGE (SI) and Geoserver TJS (NL))*
- *INSPIRE cluster for comments*

Member States Examples



Geo-standaarden

Thema's

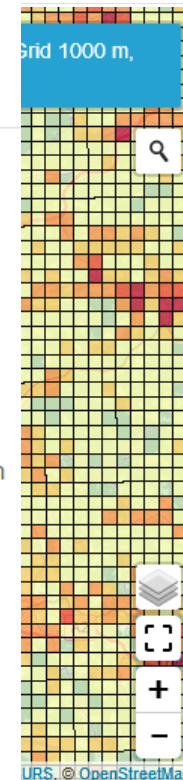
Over Geonovum

Sensor services (SOS/SPS)

Sensor netwerken monitoren omgevingsfactoren. De door sensoren verzamelde geo-informatie kan direct van de sensor naar de gebruiker stromen (streaming data). Voor deze real-time verwerking van gegevens is er een speciale set standaarden ontwikkeld door OGC: De [OGC Sensor Observation Service](#) en de [OGC Sensor Planning Service Implementation Specification](#). OGC heeft in 2016 ook een nieuwe sensor standaard gepubliceerd. De OGC de [SensorThings API](#) voor Internet of Things applicaties. Dit is een lichtgewicht interface specificatie, gebaseerd op REST en JSON, waarmee applicatieontwikkelaars via het web kunnen communiceren met apparaten die verbonden zijn aan het internet. Dankzij de SensorThings API hoeven ontwikkelaars de protocollen van de verschillende apparaten niet meer te kennen. Deel 1 van deze API, de Sensing Standard, is bedoeld om observaties en metagegevens van sensoren te kunnen opvragen via het web.

Table joining services (TJS)

Een [Table Joining Service](#) zorgt ervoor dat als de ene toepassing de geometrie serveert en de andere toepassing de tabel, de gebruiker via de Table Joining Service zowel de geometrie als de tabel met attribuutinformatie kan benaderen.



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