SDMX & DPM

SDMX Global Conference

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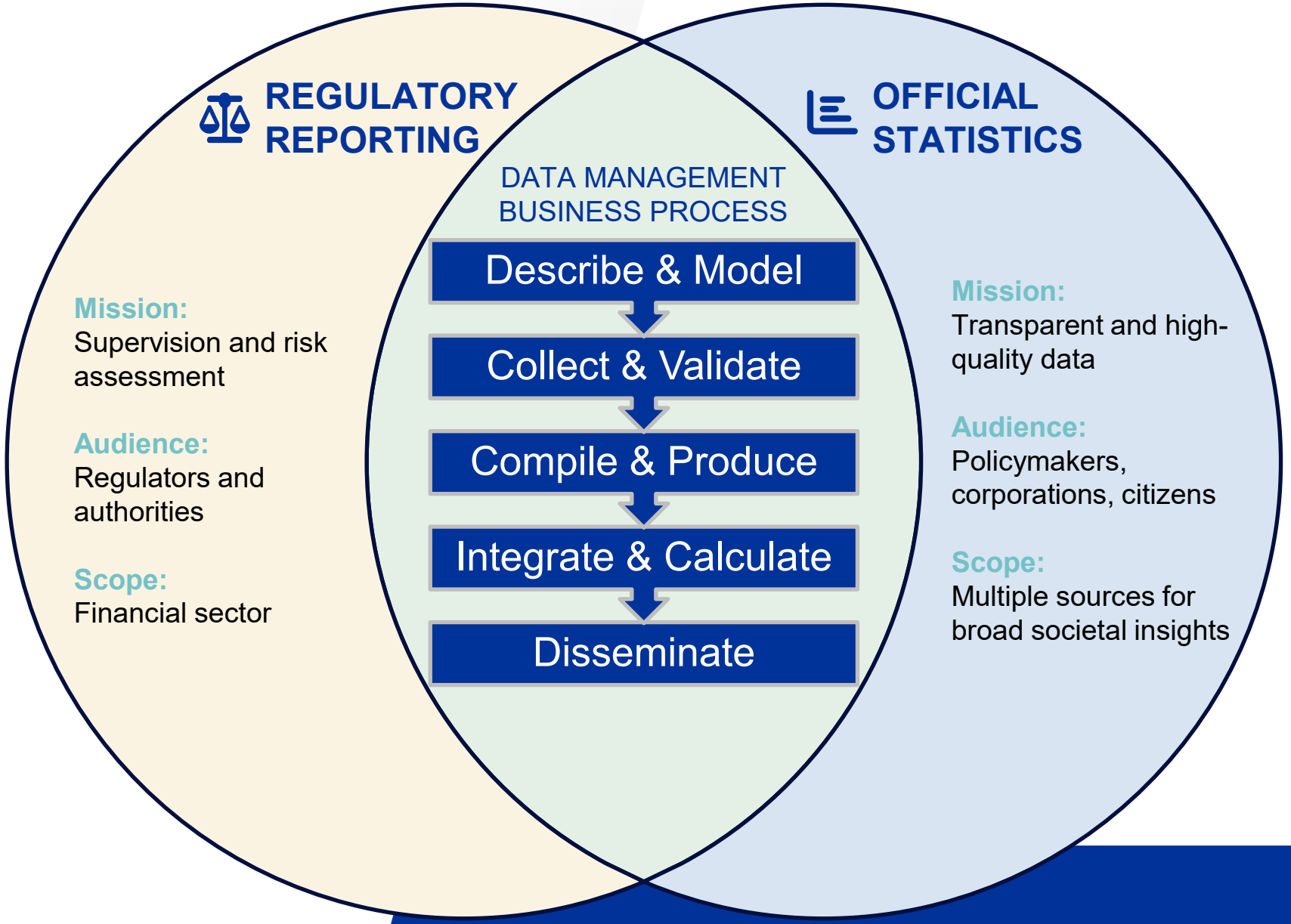
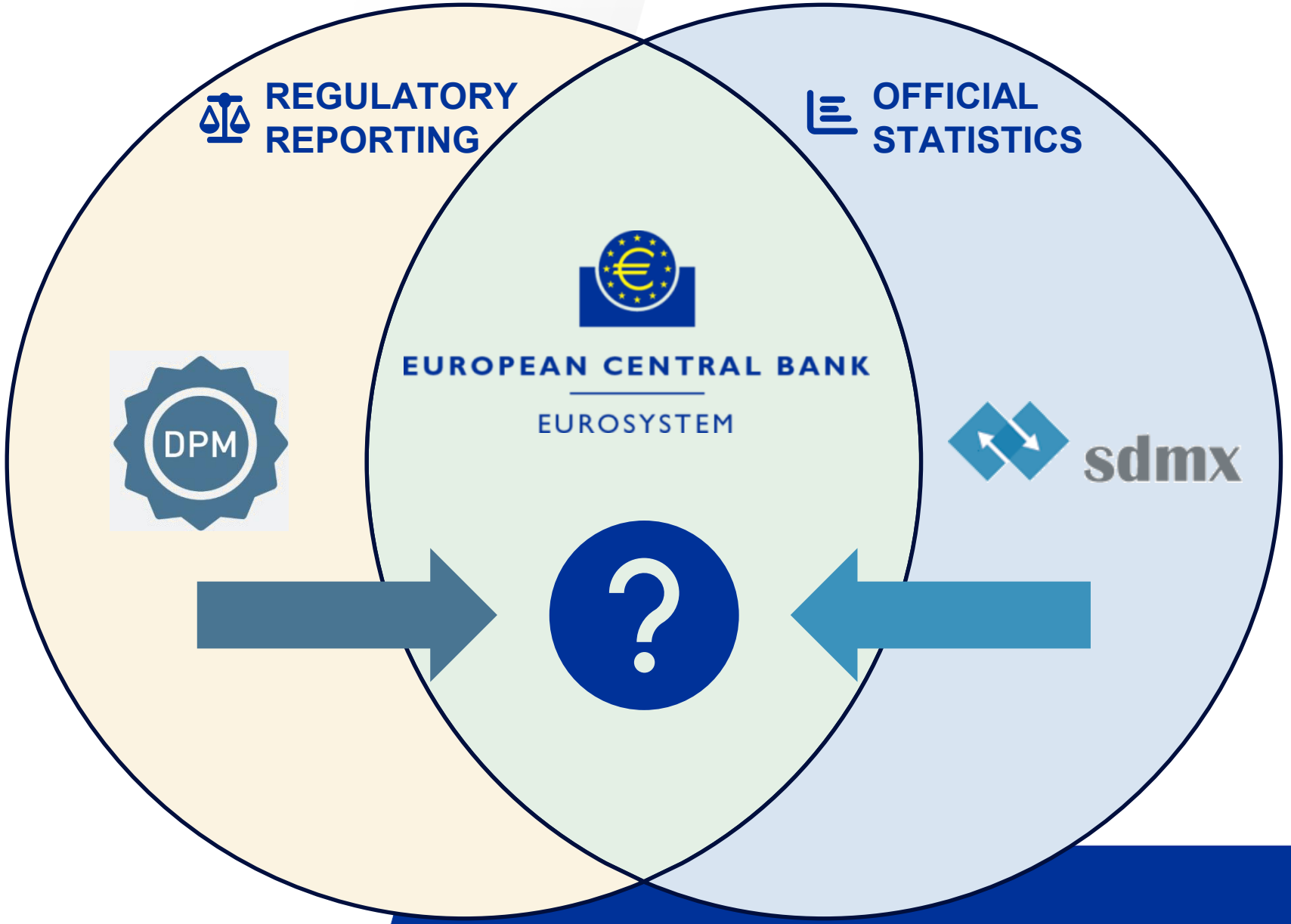
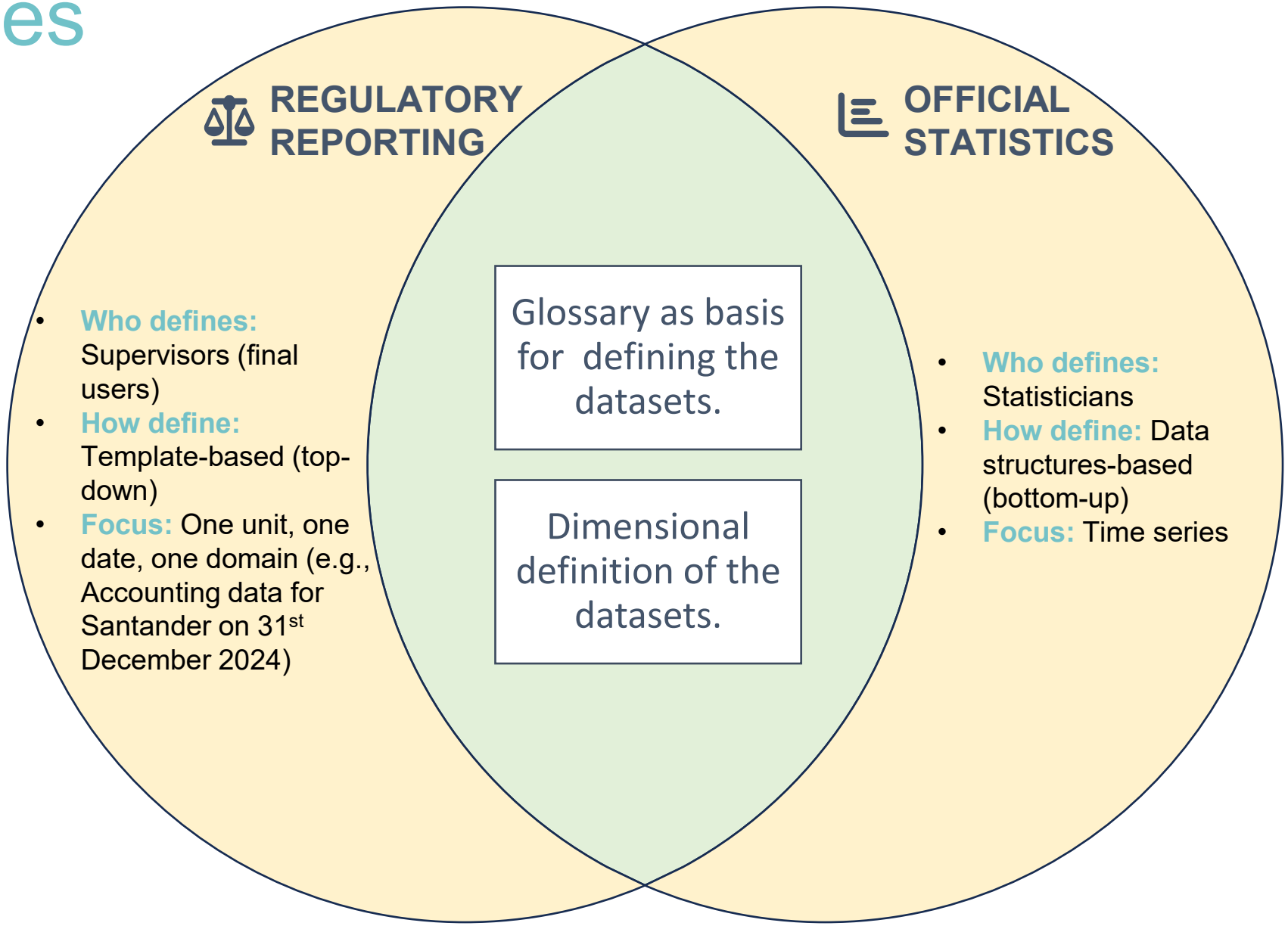
What's what?


REGULATORY REPORTING
Mission:
Supervision and risk assessment
Audience:
Regulators and authorities
Scope:
Financial sector
DATA MANAGEMENT BUSINESS PROCESS
Describe & Model
Collect & Validate
Compile & Produce
Integrate & Calculate
Disseminate
OFFICIAL STATISTICS
Mission:
Transparent and high-quality data
Audience:
Policymakers, corporations, citizens
Scope:
Multiple sources for broad societal insights

Standards usage – a Business Case for Integration



Regulatory reporting vs official statistics - Practices



The modified DEMO_PJAN DSD

Viewing: DEMO_PJAN Dataflow for demo [1.0]

Data Providers	N/A
Dimensions	
[freq] Time frequency	
[age] Age class	
[sex] Sex	
[geo] Geopolitical entity (reporting)	
[TIME_PERIOD] Time	
Measures	
[POPULATION] Population	
[NUMBER_DEATHS] Number of deaths	
[NUMBER_BIRTHS] Number of births	
Dataset Attributes	
- n/a -	
Series Attributes	
- n/a -	
Observation Attributes	
[OBS_FLAG] Observation status (Flag) V2 structure	
[CONF_STATUS] Confidentiality status (flag)	
Group Attributes	
- n/a -	

Data Type: ESTAT:GEO(25.0) (subset of full list)

Enumeration Restrictions: Additional Restrictions Apply

Id	Name
BE	Belgium
LU	Luxembourg
NL	Netherlands

Showing 1 to 3 of 3 entries

AGE	SEX	GEO	POPULATION	NUMBER_DEATHS	NUMBER_BIRTHS
Y25-74	M	BE	3125368	12350	
Y_GE75	M	BE	1535227	26483	
Y_LT25	M	BE	1803895	256	15796
Y25-74	F	BE	2896355	18653	
Y_GE75	F	BE	1126865	25896	
Y_LT25	F	BE	1495350	245	19746

https://fmr.meaningfuldata.eu/sdmx/v2/structure/dataflow/MD/DEMO_PJAN_DEMO/1.0

DPM Starting point: Table definition

The definition of a DPM dataset starts with the definition of a **table**.

A table has **headers**, which may be in three axes (row, columns, sheets).

The cartesian product of the headers (x*y*z) results in the **cells** of the tables.

Column headers - labels

Column headers – codes

		Number of births			Number of deaths			Population		
			Female	Male		Female	Male		Female	Male
		0010	0020	0030	0040	0050	0060	0070	0080	0090
Belgium	0010									
Less than 25 years	0020									
Between 25 and 74 years	0030									
From 75 years	0040									
Luxemburg	0050									
Less than 25 years	0060									
Between 25 and 74 years	0070									
From 75 years	0080									
Netherlands	0090									
Less than 25 years	0100									
Between 25 and 74 years	0110									
From 75 years	0120									

Row headers

Cells may be not applicable

Cells (generated automatically

DPM Modelling Phase

In the modelling phase, tables (datasets) are provided a **dimensional definition**.

Modelling happens **at header level**.

		Number of births			Number of deaths			Population				
			Female	Male		Female	Male		Female	Male		
		0010	0020	0030	0040	0050	0060	0070	0080	0090	(AGE)	(GEO)
Belgium	0010										T	BE
Less than 25 years	0020										Y_LT25	BE
Between 25 and 74 years	0030										Y25-74	BE
From 75 years	0040										Y_GE75	BE
Luxemburg	0050										T	LU
Less than 25 years	0060										Y_LT25	LU
Between 25 and 74 years	0070										Y25-74	LU
From 75 years	0080										Y_GE75	LU
Netherlands	0090										T	NL
Less than 25 years	0100										Y_LT25	NL
Between 25 and 74 years	0110										Y25-74	NL
From 75 years	0120										Y_GE75	NL
Main Property		NUMBER_BIRTHS	NUMBER_BIRTHS	NUMBER_BIRTHS	NUMBER_DEATHS	NUMBER_DEATHS	NUMBER_DEATHS	POPULATION	POPULATION	POPULATION		
(SEX)		T	F	M	T	F	M	T	F	M		

Note that TIME_PERIOD is not added! It is implicit (common practice in DPM).

DPM Variables generation

		Number of births			Number of deaths			Population				
			Female	Male		Female	Male		Female	Male		
		0010	0020	0030	0040	0050	0060	0070	0080	0090	(AGE)	(GEO)
Belgium	0010	v1	v41	v61	v81	v121	v141	v161	v201	v221	T	BE
Less than 25 years	0020	v2	v42	v62	v82	v122	v142	v162	v202	v222	Y_LT25	BE
Between 25 and 74 years	0030				v83	v123	v143	v163	v203	v223	Y25-74	BE
From 75 years	0040				v84	v124	v144	v164	v204	v224	Y_GE75	BE
Luxemburg	0050	v5	v45	v65	v85	v125	v145	v165	v205	v225	T	LU
Less than 25 years	0060	v6	v46	v66	v86	v126	v146	v166	v206	v226	Y_LT25	LU
Between 25 and 74 years	0070				v87	v127	v147	v167	v207	v227	Y25-74	LU
From 75 years	0080				v88	v128	v148	v168	v208	v228	Y_GE75	LU
Netherlands	0090	v9	v49	v69	v89	v129	v149	v169	v209	v229	T	NL
Less than 25 years	0100	v10	v50	v70	v90	v130	v150	v170	v210	v230	Y_LT25	NL
Between 25 and 74 years	0110				v91	v131	v151	v171	v211	v231	Y25-74	NL
From 75 years	0120				v92	v132	v152	v172	v212	v232	Y_GE75	NL
Main Property		NUMBER_BIRTHS	NUMBER_BIRTHS	NUMBER_BIRTHS	NUMBER_DEATHS	NUMBER_DEATHS	NUMBER_DEATHS	POPULATION	POPULATION	POPULATION		
(SEX)		T	F	M	T	F	M	T	F	M		

All variables have a **context** and a **main property**, calculated as the cartesian product of the modelling

Note that under this approach, a **variable** is essentially equivalent to a **time series**

Context

- Age = Y25-74
- Sex = M
- GEO=BE

Main property

- Population

Identifying a fact under the DPM

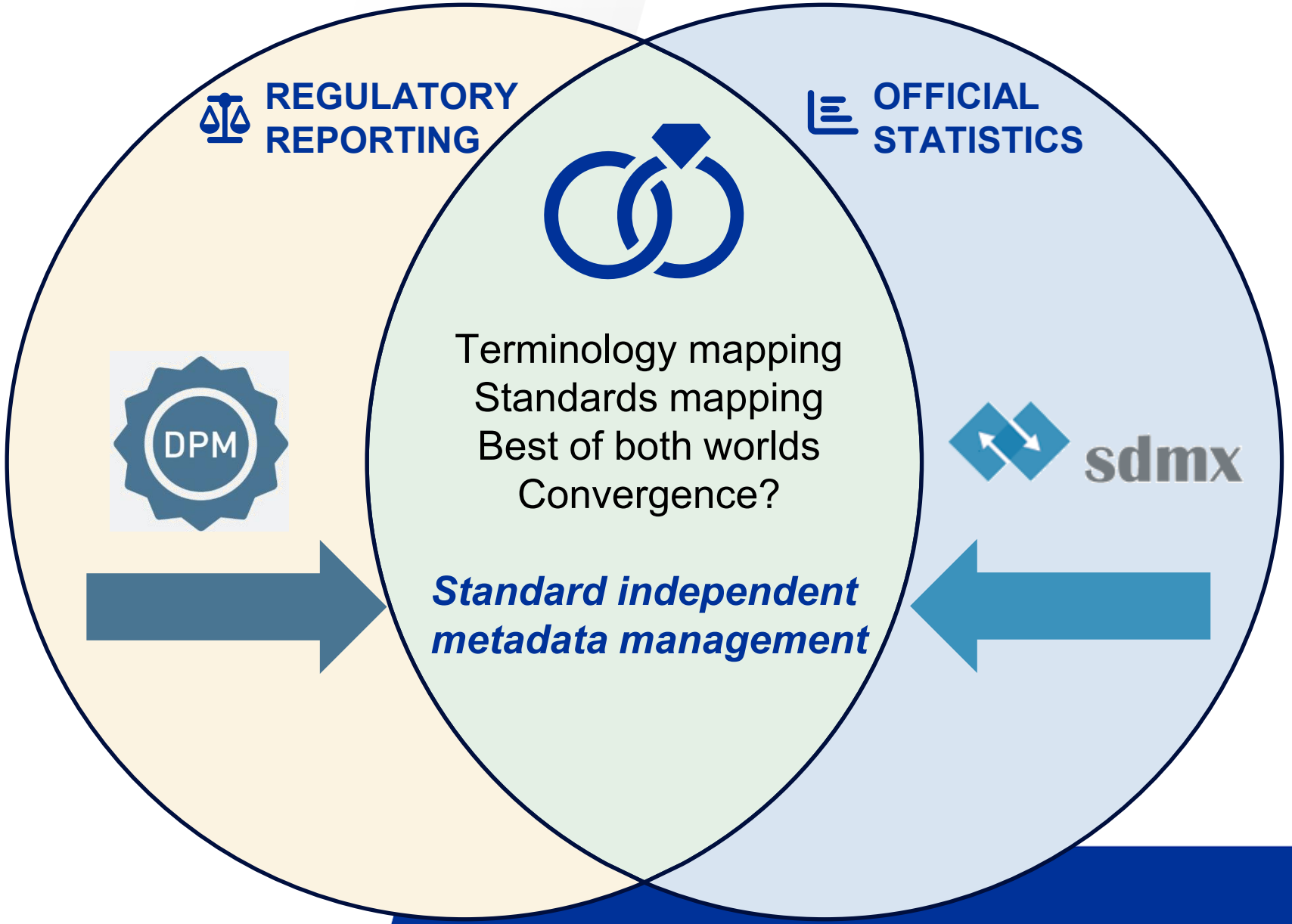
		Number of births			Number of deaths			Population				
			Female	Male		Female	Male		Female	Male		
		0010	0020	0030	0040	0050	0060	0070	0080	0090	(AGE)	(GEO)
Belgium	0010										T	BE
Less than 25 years	0020		19746	15796		18653	12350		2896355	3125368	Y_LT25	BE
Between 25 and 74 years	0030					25896	26483		1126865	1535227	Y25-74	BE
From 75 years	0040					245	256		1495350	1803895	Y_GE75	BE
Luxemburg	0050										T	LU
Less than 25 years	0060										Y_LT25	LU
Between 25 and 74 years	0070										Y25-74	LU
From 75 years	0080										Y_GE75	LU
Netherlands	0090										T	NL
Less than 25 years	0100										Y_LT25	NL
Between 25 and 74 years	0110										Y25-74	NL
From 75 years	0120										Y_GE75	NL
Main Property (SEX)		NUMBER_BIRTHS T	NUMBER_BIRTHS F	NUMBER_BIRTHS M	NUMBER_DEATHS T	NUMBER_DEATHS F	NUMBER_DEATHS M	POPULATION T	POPULATION F	POPULATION M		

Cell description:
- Table: DEMO_PJAN
- Row: 0030
- Column: 0090

Variable description:
- V223
- Context (BE.Y25-74.M)
- Main property = POPULATION

Dimensional description:
- AGE = Y25-74
- SEX = M
- GEO=BE
- Main property = POPULATION

Standards Integration – a Way Forward



meaningful DATA

Making your data **worthwhile.**

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