Minimizing Quality Reporting Burden In Official Statistics through DDI Smart Metadata

Susana Portillo Cruz – CSO Ireland
Ken Moore – CSO Ireland
Jeremy Iverson – Colectica

Overview

- Introduction

- The problem to solve

- Current Approach to solution

- Technical aspects (Colectica)

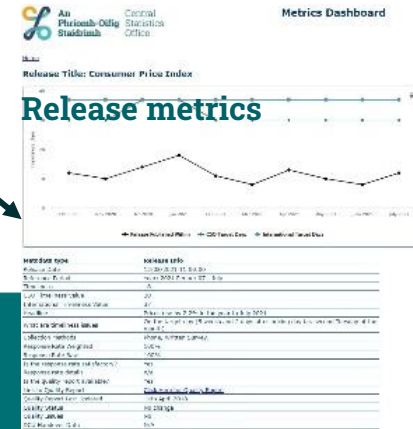# National level Problem

CSO Standard Word/pdf

Eurostat ESMS

Producer of Statistics

Eurostat ESQRS/ SIMS

Release metrics

?

Others?

cso.ie

Proposed Solution

Eurostat ESMS

Eurostat ESQRS/ SIMS

Producer of Statistics

CSO SIMS collection interface

CSO Standard Word/pdf

Standard Report on Methods and Quality for Process Name

Step 1 - Harmonisation

- Alignment of concepts
  - 90% concept SIMS/National overlap
  - 10% present in one, not the other.
  - Present at national level mentioned in SIMS descriptions
- Extended Eurostat SIMS via subconcepts

Step 1 - Harmonisation

CONCEPT_NAME	SIMS ID	ESQRSID	ESMSID	CSO SIMS ID	usage (SIMS/ Domain specific)	parent CONCEPT
DATA_REV_AVGSIZE	S.17.2.1	6.6.1	-	19.2.1	SIMS	REV_PRACTICE
STAT_PROCESS	S.18	3	18	20	SIMS	N/A
SOURCE_TYPE	S.18.1	3.1	18.1	20.1	SIMS	STAT_PROCESS
POP_FRAME					**CSO SIMS**	**SOURCE_TYPE**
SAMP_DESIGN					**CSO SIMS**	**SOURCE_TYPE**
SURVEY_SIZE					**CSO SIMS**	**SOURCE_TYPE**
SURVEY_TECHNIQUE					**CSO SIMS**	**SOURCE_TYPE**
FREQ_COLL	S.18.2	3.2	18.2	20.2	SIMS	STAT_PROCESS
COLL_METHOD	S.18.3	3.3	18.3	20.3	SIMS	STAT_PROCESS
SURVEY_TYPE					**CSO SIMS**	**COLL_METHOD**
QUESTIONNAIRE					**CSO SIMS**	**COLL_METHOD**
SURVEY_PARTICIPATION					**CSO SIMS**	**COLL_METHOD**
DATA_CAPTURE					**CSO SIMS**	**COLL_METHOD**
DATA_VALIDATION	S.18.4	3.4	18.4	20.4	SIMS	STAT_PROCESS
DATA_COMP	S.18.5	3.5	18.5	20.5	SIMS	STAT_PROCESS
IMPUTATION					**CSO SIMS**	**DATA_COMP**
IMPUTATION_RATE	S.18.5.1	6.3.4.1	-	20.5.1	SIMS	DATA_COMP
GROSS_WEIGHT					**CSO SIMS**	**DATA_COMP**
ADJUSTMENT	S.18.6	3.6	18.6	20.6	SIMS	STAT_PROCESS
SEASONAL_ADJ	S.18.6.1	6.4	-	20.6.1	SIMS	ADJUSTMENT
COMMENT_DSET	S.19	12	19	21	SIMS	N/A

Step 2 – Migration

- SIMS training
- Word document compiling info from:
  - Eurostat reports (ESMS/ESQRS/SIMS)
  - CSO Standard report
  - Background notes
  - 'Methods' page
  - Any other source found

Step 3 – Software Development: QR Manager App

- Integrates with Colectica (DDI Standard)
- Mandatory flag set up for concepts
- Audience specific text
- Rollover of reports
- Report comparison
- Extract pdf and SDMX for Eurostat transmission
- Approval Workflow functionality

Step 4 – Rollout and embedding

- SIMS admin:
  - creates required Standard
    - CSO Base SIMS + Eurostat domain specific
  - Creates DDI Series/Studies/Data Collections object
  - Kick off approval workflow process
- Report Owner (upon approval):
  - Manage their own report
  - Extract PDF for national website
  - Extract SDMX for Eurostat transmission via eDamis

Technical Aspects

Reference Metadata in the European Statistical System System

- Describe the reliability of statistical outputs

- Consistent reporting

Standards for quality reporting

- SIMS
  - 19 concepts and 80 sub-concepts
- DDI
  - 40+ item types to describe data and processes
- SDMX
  - Reporting/messaging formats used by Eurostat

Standards for quality reporting

SIMS → **DDI Quality Standard**
- Ingested from SIMS
- Customized by institute

→ **DDI Quality Statements** → **Outputs**
- SDMX
- PDF
- Word
- Web
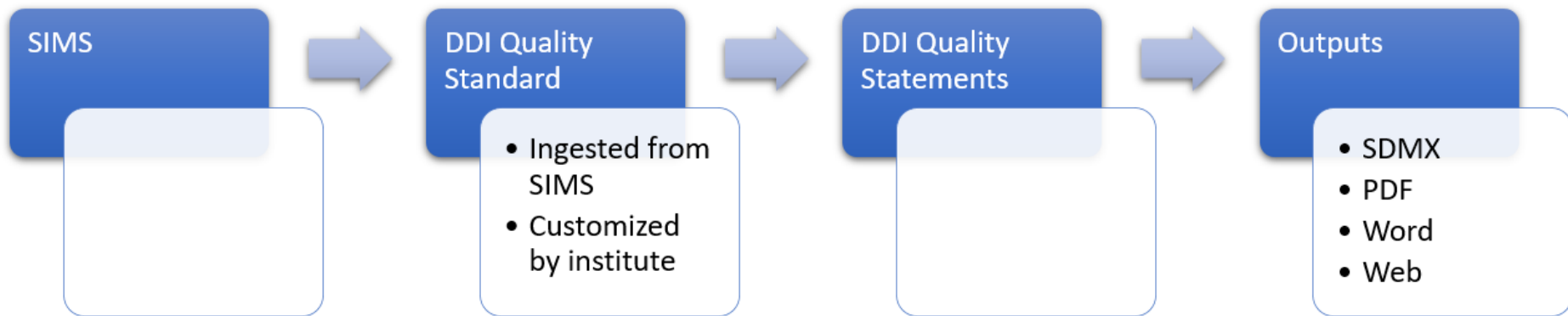
New tools for quality reporting

- Pre-fill from DDI metadata and internal database content
- Rollover to subsequent periods
- Access control and workflow management
- SDMX reports
- Publish on the Web and to PDF
- Content validation
- Compare with previous, last

Navigate statistical outputs

An Integrated Approach to Quality Reporting © 2024 by Susana Portillo Cruz, Ken Moore and Jeremy Iverson is licensed under CC BY-NC_ND 4.0

Edit quality statements

Conclusion

Benefits

- Easier to update all reports

- Same information conveyed regardless of the report

- Quality controls in place for report dissemination

- Published reports have consistent look and feel – Official reports

Thank you,
Questions ?