Linked Open Metadata
The IMS project

- Implementing ModernStats standards
- Launched at the HLG Workshop in November 2015
- Three work packages
  - WP1: Classifications, concepts
  - WP2: Models
  - WP3: Modernisation Maturity model
- WP1 and WP2 about linked metadata
What is linked metadata?

- Use of Linked Data standards applied to metadata
  - OWL for information models, RDF for (meta)data, URI for identifiers
- Leverage existing vocabularies and models
  - SKOS/XKOS for concepts and classification
  - PROV for provenance (e.g. processes)
  - ADMS/DCAT (and StatDCAT) for data description
  - Lots of others (versioning, ORG, etc.)
Expected benefits

- Coherent modeling and naming across NSIs
- Stronger semantics
- Unified data formats
- Machine actionable metadata
- Link to external metadata
WP1 – objectives

• Create Linked Metadata sets for:
  – Selected classifications (ATECO, NAF, CPA, CPC, NACE, ISIC, NAICS...)
  – SDMX codelist (Measure unit codelist)

• Implement or configure software artefacts for
  – Navigating classifications
  – Visualizing related ontologies
WP2 – objectives

- Create Linked Metadata sets for:
  - GSIM, GSBPM
  - CSPA
  - EARF (Enterprise Architecture Reference Framework) Building Blocks

- Implement or configure software artefacts for
  - Navigating models
  - Visualizing related ontologies
Use case examples – 1

• Comparing National Classifications refinements
  – Italian and French refinements of NACE classification, respectively ATECO and NAF
  – With the purpose to show:
    • Different approaches for refinements
    • Similarities and differences
    • “Federated” navigation (i.e. possibility of querying simultaneously classifications deployed at Istat and at Insee)
Use case examples – 2

• Linking GSIM and GSBPM, with the purpose to show:
  – How to query GSIM-RDF
  – How to navigate from GSIM to GSBPM (and vice-versa)
  – How to check mutual-coherence between GSIM and GSBPM
WP1 – achievements – 1

- Database of classification implemented
  - On the sandbox
  - 8 classifications, 13 major versions, 16 correspondence tables
  - [http://semstats.org/media/images/classifications.png](http://semstats.org/media/images/classifications.png)
  - Different sources and formats
    - UNSD register, RAMON, NSIs web sites
    - Excel, Access, PDF...
    - All extraction and transformation programs open source
WP1 – achievements – 2

- Web client
  - Modern JavaScript architecture
  - Reusable in other contexts
  - Open source
WP2 – achievements

• Work on modelization
  – 2 scientific papers accepted for SemStats 2016
    • Ontology for GSIM
    • Ontology for CSPA
  – 1 paper presented last year
    • Ontology for GSBPM
  – Current work on quality indicators
    • SIMS
    • Quality indicators for the GSBPM
Lessons learned

- Validity and feasibility of the concept proven
- Importance of standard representation of metadata
- Defined methodology for creating linked metadata sets
Perspectives

- Ensure sustainability
  - Secure technical platform
  - Associate more NSIs and organizations
  - Look for funding (ISA²?)
- Add more data, tools
- Create community
  - Define best practise
  - Reach out to external users