



UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE

CONFERENCE OF EUROPEAN STATISTICIANS

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# Piloting surveys with GSIM



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et des études économiques

Mesurer pour comprendre

# Plan

1. Context
2. Protocols: a new tool for the data collection system
3. Building Protocols: GSIM approach
4. Conclusion

Context

# **A long-term strategy: standardise and industrialise the survey production**

→ **A survey data collection platform in a metadata-driven approach**

- **Components developed**

- Design: questionnaire design tool
- Build: questionnaire generator
- Collect: CAWI platform for businesses surveys  
CAWI and CATI / CAPI platforms for household surveys  
PAPI management tool

- **Standards used**

- GSBPM
- DDI
- VTL

# **Metallica: a project to pursue the long-term strategy**

→ **Standardise and industrialise the production of surveys**

- **How?**

- Use metadata and international standards beyond the data collection
  - Collect: configure survey protocols, trigger collections events
  - Process: implement the first steps
- Evolve the data collection system
  - Upgrade existing tools
  - Build new tools

Protocols: a new tool for  
the data collection system

# Complex protocols for household surveys

E.g.: several modes and sub-cycles of collection and collection instruments

- **Many tasks to implement the protocols**
  - require data manipulations and transfers
  - involve many users and tools of the data collection system

# A data collection platform based on isolated and weakly coupled services



Monolithic (Pre-SOA)  
(Tightly coupled)



SOA  
(Loosely coupled)

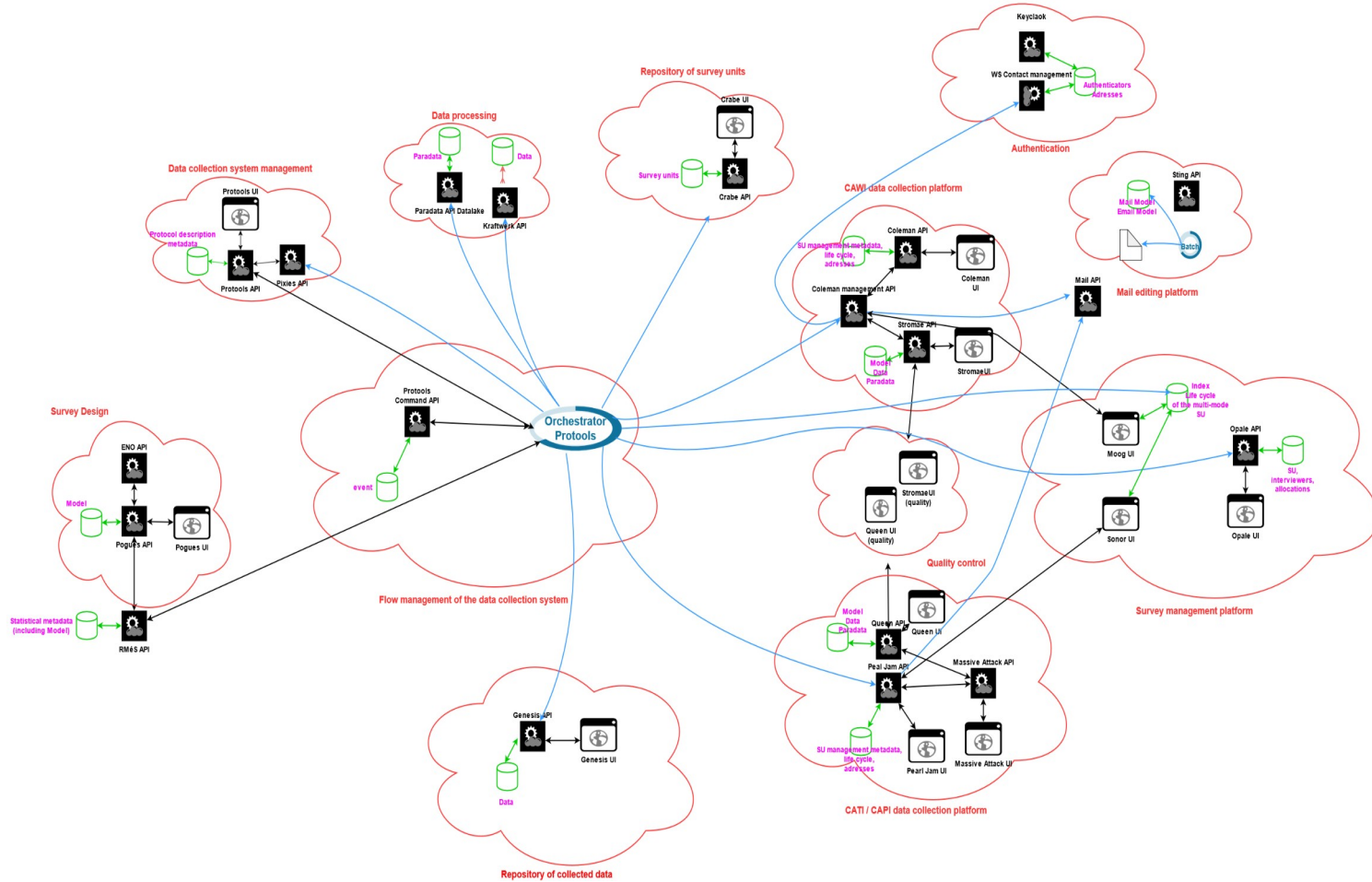


Microservices  
(Decoupled)

- **The data collection system must evolve: Service Oriented Architecture**
  - Make sub-system communicate
  - Improve automation
  - Ensure consistency thanks to active metadata



# Add an orchestrator: Protocols



# **Protocols: a solution for orchestrating survey protocols based on active metadata**

**The tool is based on formal modellings to:**

- characterise surveys
- describe collection processes
- expose / fill in survey metadata
- trigger collection survey events
- monitor the triggering of events

**→ Standards help to identify and define the necessary conceptual objects**

# Building Protocols: GSM approach

# **Our current description of statistical processes in RMÉS**

- **We have used so far two GSIM objects**
  - Statistical Program
  - Statistical Program Cycle
- **As objects associated to quality reports**
  - Implicitely with an yearly rythm
- **We have no metadata to describe processes as required yet**
- **We need to go deeper into how we use the statistical program cycle in relation to complex processes**
- **With some complex protocols, it is difficult to identify the statistical program cycle**

# Issue of panel description with GSIM

- **Example in the paper, the consumer survey**
  - Rotative panel planed over one year with 12 monthly surveys
  - What is the statistical program cycle, the yearly process or the monthly survey?
- **We present two alternatives in the paper followed by a discussion**
  - A « cycle » for the yearly protocol and monthly surveys in the Business processes?
  - « Cycles » like monthly surveys, so there needs to be an object that encompasses these cycles (other than the statistical program)?
- **The main question is "in the case of a longitudinal study (over time, with several studies) is it possible to consider the statistical program cycle as a group that contains several surveys"? If so, how can it be reported with GSIM?**
- We will continue to work on these issues and welcome any comments

# GSIM objects pinpointed

- **GSIM is rich enough to provide useful objects.**
- **Statics dimension: to characterise the main steps or objects of the process**
  - Business services, Process Steps, Business Functions. All of them tagged with attributes and administrative details
- **Dynamic dimension: to describe the sequence of steps**
  - Objects around the process design
    - Input (core, process support, parameter)
    - output (core, process execution log)
    - Methods (specification of the technique used in the process)
    - Rules (mathematical or logical expression)

# Conclusion

- **Except issues mentioned, GSIM is able to furnish relevant conceptual objects**
  - for static requirements
  - for dynamic requirements
- **We will be able to pinpoint GSIM objects as milestones to pilot processes**
- **Linking GSBPM GSIM document is great!**
- **In practice, technically, BPMN will be used, and BPMN objects will be tagged with DDI objects, GSIM objects or objects from the Core Ontology. Rules will be implemented with VTL**
- **First implementation of Protocols during 2023**

Thank you for your attention!

Any questions?