OME2 production process for a high-value large-scale prototype

Noémie Grémeaux (IGN France)

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1.   The OME2 high-value large-scale prototype production process

2.   Progress since January 2023

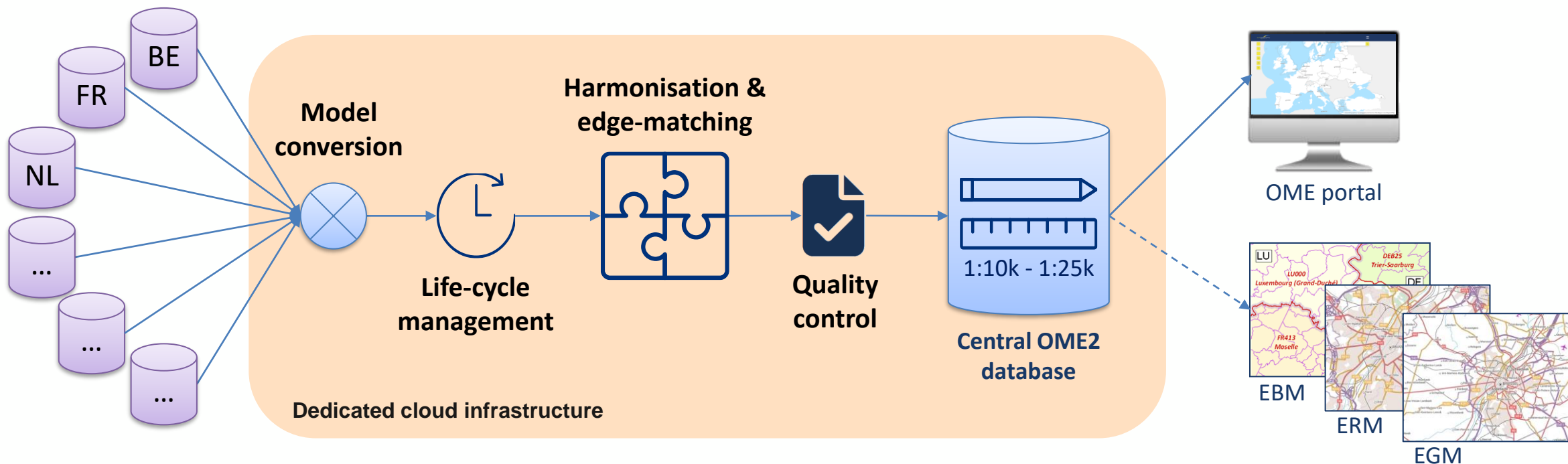# Objectives

To set up a workflow to create and maintain:

➢ A central pan-European high-value large-scale prototype (HVLSP)

➢ 3 themes:
1-Administrative units; 2-Transport network; 3-Hydrography

➢ 10 countries by 2025

➢ Common data model based on UN-GGIM: Europe

➢ Geometrical and topological consistency across international boundaries

➢ Life-cycle management (from the creation of the database)

By the end of 2023:
➢ 3 countries: BE, FR, NL
➢ 2 themes: AU and TN

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Future production process

BE
FR
NL
...
...
...

Model conversion

Life-cycle management

Harmonisation & edge-matching

Quality control

1:10k - 1:25k

Central OME2 database

Dedicated cloud infrastructure

OME portal

EBM
ERM
EGM

Short term -------------------> get data from NMCAs
Long term (after OME2) --> automatic harvesting and/or upload portal

The OME2 approach

➢ Centralised process: implementation, maintenance & production are handled by the project.

➢ Little intervention required from national producers

➢ Re-use of the results from previous projects:

- Data model → UN-GGIM: Europe working group on core data
- Tools → ELF, ESDIN, EuroGeographics production tools

➢ A **technical** and **practical** approach to harmonisation:
- Iterative approach taking into account feedback from users ;
- Technical (not political) solutions ;
- Highly automated ;
- All the available data is integrated (knowing that there will be discrepancies between countries).

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Work plan

2023

- First version of the HV LS prototype (3 countries, 2 themes)
- Technical documentation
- Tool prototypes
- First inventory of available open data

2024

- Consolidation of the tools
- Implementation of the update process (life-cycle management)
- Coverage/theme extension
- Cloud infrastructure

2025

- Full dataset covering 10 countries and 3 themes
- Operational update process
- Feasibility studies completed
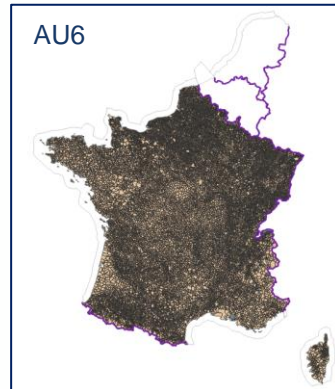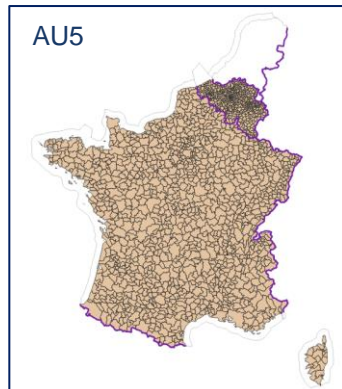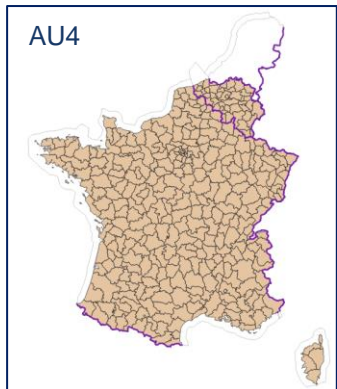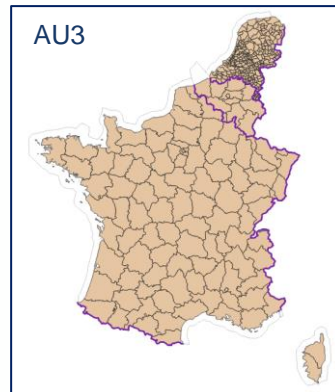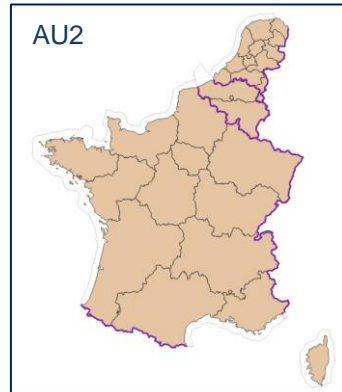- Plan for the future (improvements and coverage extension)

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1. Administrative Units theme

Current status of the OME2 HV LS prototype:

✓ Technical boundaries calculated and agreed upon between the 3 countries

✓ Data from the 3 pilot countries converted to the OME2 data model (1 table per administrative level)

✓ Edge-matching performed along the technical boundaries
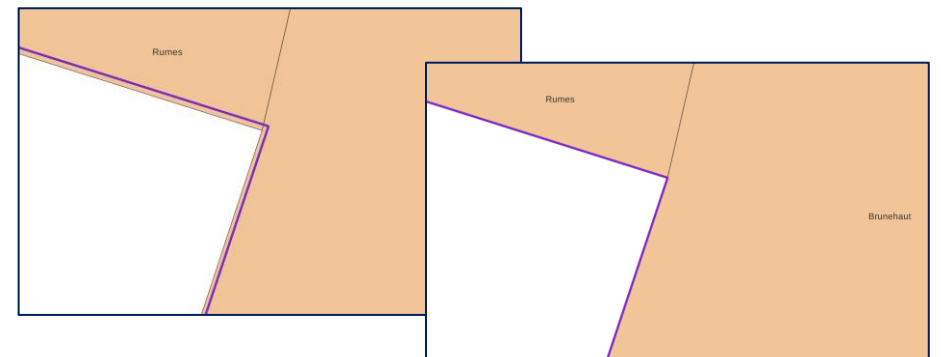
2. Transport Network theme

Expected content (UN-GGIM recommendations):

Road transport	Rail transport	Air transport	Water transport
• road links	• railway links	• aerodromes	• ports
• road nodes *(interchanges, level crossings…)*	• railway stations	• runways	• ferry crossings
• marker posts			
• road services *(rest areas, bus stations, parking lots…)*			

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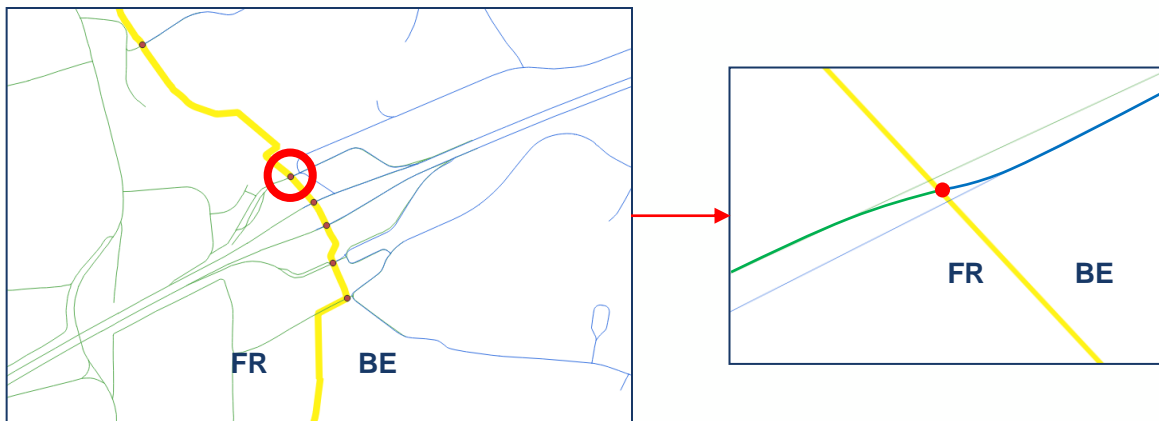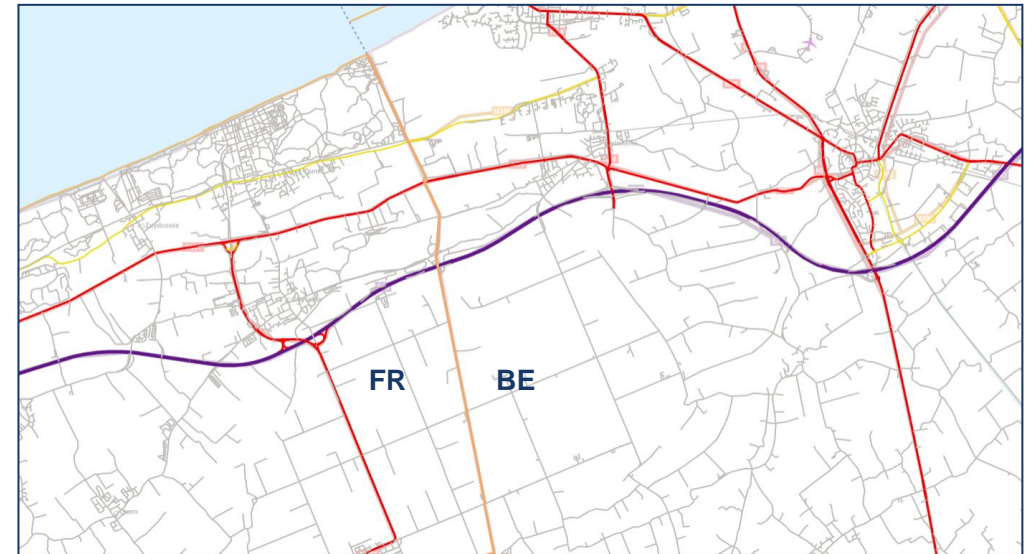
2. Transport Network theme

Current status of the OME2 HV LS prototype:

➢ Model conversion done for 75% of the data (BE, FR, NL)

➢ Edge-matching underway for road and railway links:

   ▪ Clean duplicated networks around boundaries,

   ▪ Ensure network connectivity on intermediate locations.

FR   BE

FR   BE

Connecting point calculated on the boundary


FR   BE

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Open questions

➢ What is our target in terms of harmonisation?

1. Harmonise but keep the data as accurate as possible?
2. Ensure common representations across Europe?
3. Reflect national discrepancies?
4. ... ?

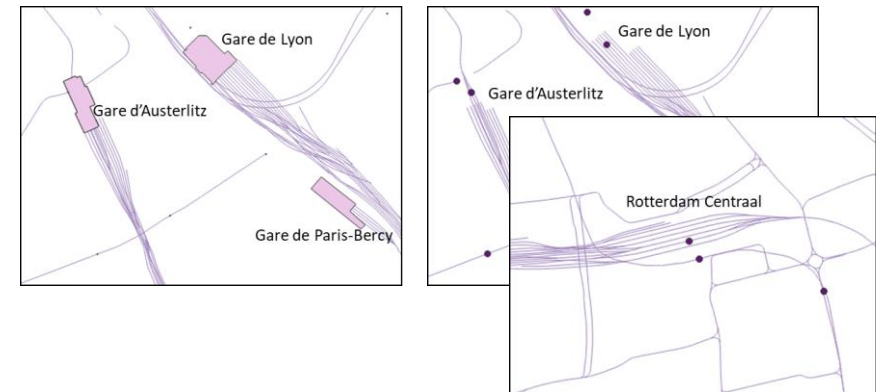Example: railway stations are portrayed as areas in FR but as points in NL

We need to know how you plan to use the data in order to better address your needs!

Option 1: keep both representations in two separate tables
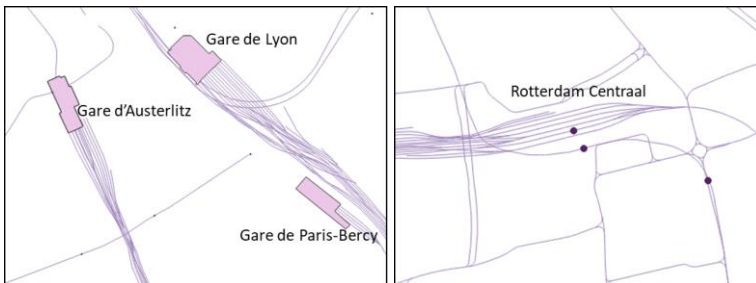
Option 2: simplify FR geometry to have a single representation in a single table
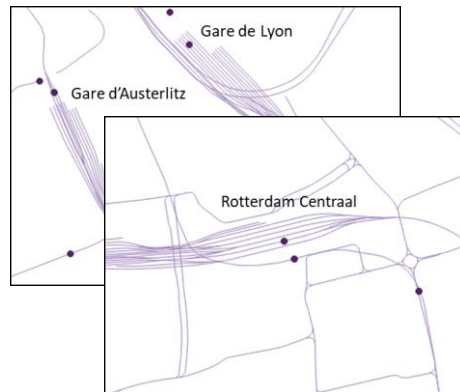
Option 3: include both representations for FR and only points for NL

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Thank you for your attention!

Contact: noemie.gremeaux@ign.fr

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