

TRAINING OFFER

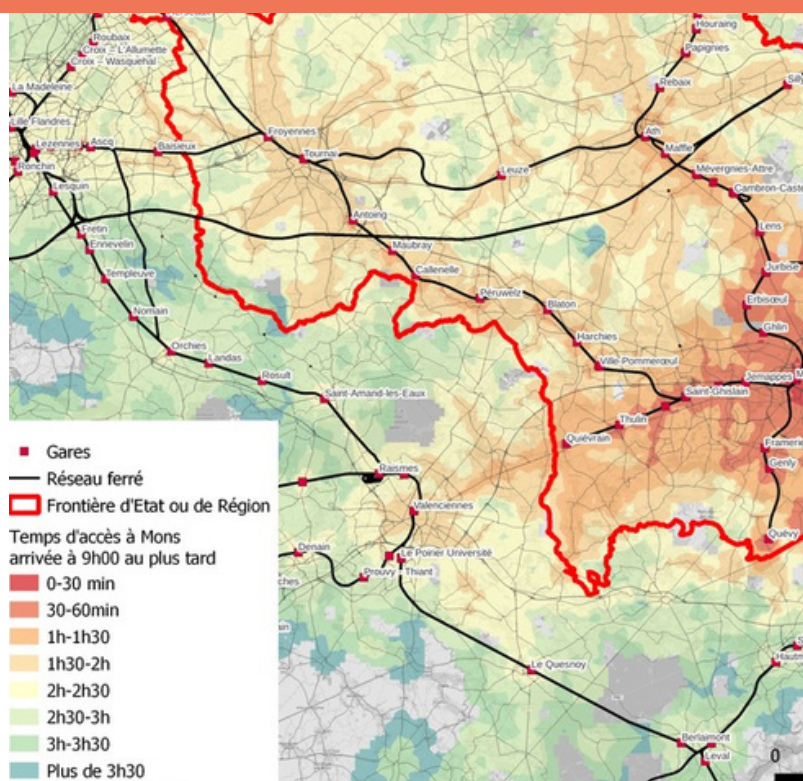
Analysing and mapping multimodal transportation services with QGIS and the 'Networks' extension



in class

LILLE

From November
18 to 20, 2026



The obligation to make transportation service data available as open data now enables local authorities, urban planning agencies, consulting firms and associations to analyse multimodal mobility services. To this end, Cerema Hauts-de-France has developed and made available a free QGIS extension called 'Networks', built around the Musliw calculator, to conduct studies and produce regional accessibility maps and analyse multimodal transportation services. Using 'Networks' extension, which only requires GTFS (General Transit Feed Specification) files for the region, the data can be used to analyse the performance of available services through mapping and, when combined, to understand the accessibility of a site, estimate the potential of transportation services, or evaluate the quality of service in a given location or the potential for intermodality. Compiling these elements allows for interesting territorial analyses, particularly on the complementarity of services in different areas and on the transportation chain.



LEARNING OBJECTIVES

After completing the training, participants will be able to:

- Manipulate tools and data (presentation of theoretical concepts related on accessibility calculation and transport supply, review of GIS concepts, installation and presentation of the QGIS 'Networks' plugin to use the database)
- Produce monomodal and multimodal accessibility maps
- Produce transportation service maps (number of passes at stops, number of trips)
- Create simple, customised multimodal networks
- Compare accessibility data with socio-economic data



TOOLS TEACHING

- Methodological and technical presentations
- Computer-based tutorials (QGIS)
- Simulation exercise: Participants may use their own local data to work on their chosen area on the last day of the training course (work laptop recommended)
- Use of the platform mesformations.cerema.fr

Support materials and tools available in French and English

PUBLIC

- Research officers or mobility project managers working for local authorities or urban planning agencies
- Research officers or mobility project managers working for decentralised services
- Consultants working for mobility or modelling research consultancies
- Project managers working for associations promoting sustainable mobility
- Researchers, doctoral students

LEVEL REQUIREMENT

Basic knowledge of QGIS :

- have completed QGIS training (basic or advanced)
- or have significant experience in using QGIS (independantly)

A basic understanding of transport modelling is an asset.

EVALUATION METHODS

- Study case

REGISTRATION FEES

1800 € excluding tax per participant (0% tax)

Lunches included

DURATION

3 days



PROGRAMME



DAY 1

10:00 a.m. - 12:00 p.m. :

- Group discussion
- Presentation of the training course
- Presentation of data

1:30 p.m. - 5:30 p.m. :

- Creation of a step-by-step multimodal accessibility map using the QGIS tools

DAY 2

9:00 a.m. - 12:00 p.m. :

- Theoretical elements on supply data and GTFS files
- Automation of accessibility maps

11:30 p.m. - 5:00 p.m. :

- Musliw multimodal calculator settings
- Accessibility maps from multiple points and/or multiple times

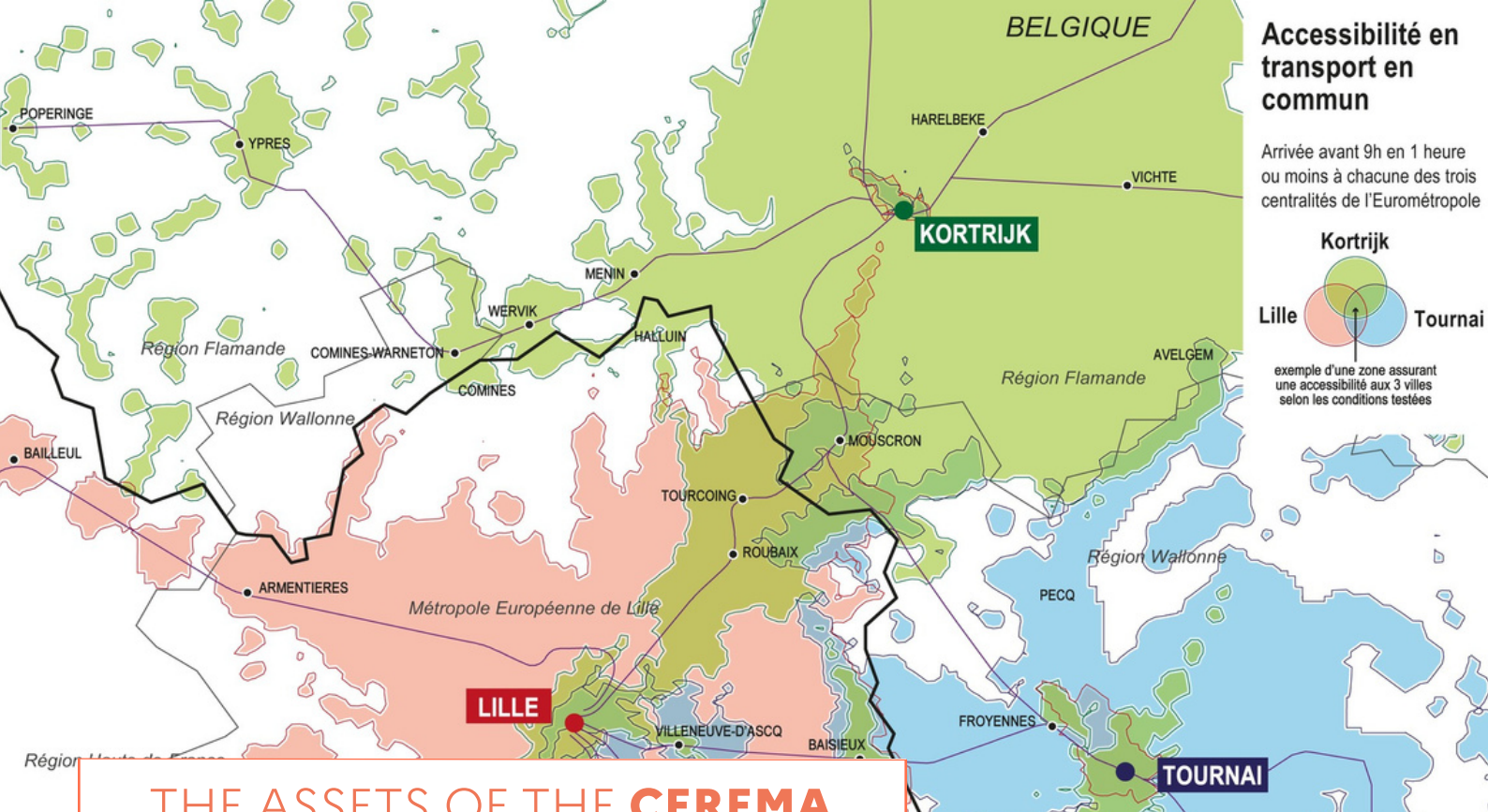
DAY 3

9:00 a.m. - 12:00 p.m. :

- Accessibility calculation using a table
- Creation of a service map (number of stops and journeys), route visualisation, flow map

1:30 p.m. - 5:00 p.m. :

- Construction of customised networks based on GTFS (General Transit Feed Specification) and OSM (Open Street Map) data
 - *Participants shall bring the GTFS files corresponding to their study area.*
- Case study
- Training evaluation



- Multidisciplinary teams of experts (planners, engineers, technicians);
- Many years of operational experience working with local authorities;
- Active participation in the publication of standards and regulations, alongside public authorities and networks of recognised partners and experts.

TRAINING COURSE COORDINATION

Patrick PALMIER

Head of Mobility and Territories Group
Designer and Developer of the 'Networks'
QGIS Plugin

INFORMATION AND REGISTRATION



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