

## OVERVIEW

Start date	1/04/2022
End datum	30/09/2022
President	Tom Callens (Digital Flanders)
Project team	<ul style="list-style-type: none"> <li>• OSLO team: <ul style="list-style-type: none"> <li>o Laurens Vercauteren: Governance</li> <li>o Arne Scheldeman</li> <li>o Third person</li> </ul> </li> </ul>
Public workshops/webinars	<ul style="list-style-type: none"> <li>• 3 - 4 public workshops</li> <li>• 1 webinar after public review</li> </ul>
Decision criteria	Unanimity minus one (U-1)
License	<a href="#">Modellicentie gratis hergebruik v1.0 (CC BY)</a>
Location of documentation	<a href="https://data.vlaanderen.be">https://data.vlaanderen.be</a>
Issue logging	Github issues

## 1 CONTEXT

### WHAT

[GreenMov](#) is a CEF (Connecting Europe Facility) project within the framework of the Green Deal to bring smart mobility data together and make it accessible with the ultimate aim of realising greener mobility. GreenMov and Digital Flanders contribute to harmonising mobility datasets, creating integrated services (cross-services) and new cross-border functionalities by combining various datasets.

A semantic standard for passenger transport hubs will be created using the OSLO method.

**A passenger transport hub** is a place with a diverse range of transport options. Depending on the location, you will find trains, tram and bus stops, shared vehicles, a Park & Ride, bicycle parking spaces, etc. These modes of transport are coordinated with each other and are preferably supplemented with additional services. Such a transport hub is also optimally organised spatially. The aim is to facilitate combi-mobility: access to and transfer between the various transport options.

In Flanders passenger transport hubs are being branded as "[Hoppin Points](#)". A semantic data model of passenger transport hubs is currently being co-created, in Dutch. The [OSLO Hoppin points](#) core vocabulary and application profile will be translated in English and possibly be extended to be reusable in the European project of [GreenMov](#) and beyond for co mobility purposes.

### WHY

A semantic standard makes sharing and exchanging data between different stakeholders easier. Each data subject can directly use and interpret the data of the other. This stimulates the exchange and reuse of data and reduces the cost of exchange. The semantic standard provides machine-readable data. It also brings efficiency gains if the data can be used in different processes.

Opening up semantic data promotes innovation and will enable relevant stakeholders to develop more intelligent products and services. Linking data also gives us richer data. More knowledge can also be gained from enriched data.

Collaborating on standards and sharing data also breaks through monopolies and provides more development opportunities for developers, suppliers, etc., and ensures that a wider group of relevant stakeholders is involved.

## 2 USE CASES

### Shared bike mobility and public transportation

By providing an availability forecasting for shared bikes, we aim, within the European project of GreenMov, to improve the combined use of shared bike mobility and public transportation. We want less waiting time and avoid non-availability of shared resources at passenger transport hubs.

To enable such smart services data regarding the different transport modes, by all the different public and private providers should be available in an interoperable way.

The objective within this project is to develop a city service that enables the shared bikes' availability forecasting for a given's bikes sharing station at a specific time. The focus of the use case is Hoppin Points at train stations with "[Blue-Bikes](#)". Blue-Bikes are one specific bike sharing system, provided by the Belgian Blue-mobility company. If the availability forecasting works for Blue-Bikes it could also work for other bike sharing systems from other providers.

## 3 SCOPE

The objective of this working group is to map, define and standardise information related to infrastructure/services around passenger transport hubs and stops in general.

The translation of [OSLO Hoppinpunten](#) core vocabulary and application profile will be used as a starting point.

The following elements are in scope:

- **Infrastructure elements:** These elements represent the physical aspect of the passenger transport hubs. For example: information points, parking facility, bicycle sheds...
- **Transportobjects:** These objects represent the transport nodes and their connections within the available transport networks.
- **Mobility services:** These are the available mobility services at the passenger transport hubs. For example: mobility by train, bus, taxi, shared cars, bikes...

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- **Additional services:** These are the additional service available to the traveler, making his/her trip as efficient as possible. For example: mailboxes, bakeries, sanitation facilities, bike repair shops...

In the business working group session we will evaluate the different use cases of the stakeholders to determine the detail scope.

## 4 STAKEHOLDERS

The stakeholders of this process include:

Stakeholder type	Voorbeelden
- Mobility providers	<i>Poppy, Velo, Villo!, Cloudbike, Mobit, Cambio, Blue-Bike Company, Renault Mobility, ...</i>
- Mobility-as-a-Service providers	<i>Olympus Mobility, Skipr, Whim, Optimile, ...</i>
- Local authorities	<i>Nice, Murcia, Molina de Segura, Antwerp, Ghent, ...</i>
- Public Transport Companies	<i>SNCF, RENFE, NMBS, DeLijn, TEC, MIVB/STIB, ...</i>
- Knowledge institutions	<i>Imecc, VITO, UAntwerpen, Mobipunt vzw</i>
- Umbrella organizations	<i>International Association of Public Transport, MaaS Alliance, ITS.be, Polis, ...</i>
- GreenMov Partners	<i>ATOS, FiWare, IMREDD, IMEC, HOPU, MT3</i>

## 5 CRITERIA FOR SUCCESS

This trajectory will be considered a success when the deliverables are widely used and applied. Initially within the GreenMov project, but also beyond. In particular, we list the following criteria:

1. There has been maximum coordination with all stakeholders who are represented in at least one of the working group sessions
2. The working group sessions result in a stable candidate standard representing a consensus of all participants
3. The specification is accepted by the data standards working group and the Flemish Information and ICT Policy Steering Board.
4. Tools are available to support and validate implementations.
5. The specification has been implemented in at least one pilot (first implementation) which proves the added value of the specification in practice.

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## 6 DELIVERABLES

The working group will deliver the following deliverables:

- Prepare an overview of information needs based on analysis of available documentation and existing standards.
- Organizing a business workshop with stakeholders to validate and further expand the information needs.
- Organizing and facilitating 2 to 3 workshops with the working group composed of domain experts + processing feedback.
- Preparation of reusable documentation for the information model and publication on data.vlaanderen.be:
  - o RDF vocabulary
  - o HTML documentation for the vocabulary with terms and definitions
  - o UML diagram
  - o HTML documentation for the UML diagram
  - o SHACL validation rules
  - o JSON-LD context file
- Integration into the OSLO system of vocabularies

## 7 MIJLPALEN EN TIMING

Datum	Mijlpaal
1/4/2022	Drafting a letter of intent and inviting interested parties to the first business workshop.
26/04/2022 9-12	Business workshop with stakeholders to validate information needs and further refine scope.
Written procedure	Validation working group charter – Working group Data standards
19/05/2022 9-12	Thematic Workshop 1
23/06/2022 9-12	Thematic Workshop 2
14/07/2022 9-12	Thematic Workshop 3 (optional)
	Start of public review period - Recognition 'Candidate Standard' - Data Standards Working Group
Written procedure	End of public review period – Recognition 'Standard' – Data Standards Working Group (Written procedure)
Written procedure	Public webinar

	Standard communication to the Flemish Information and ICT Policy Steering Board (Written procedure)
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## 8 AFHANKELIJKHEDEN

During this process, coordination will take place with the following existing initiatives:

- OSLO Hoppinpunten

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