

Report of results after 30 TOMP-API working group meetings

19th August 2020

What is the goal of this working group?

To specify a Transport Operator to Mobility Provider Application Programming Interface (TOMP-API) that allows Mobility (or MaaS) Providers (MPs) to access information on Transport Operators' (TOs) services and assets in a standardized and automated way. The API needs to be implemented by the MaaS Providers that participate in the MaaS-pilots of the Ministry of Infrastructure and Water Management in the Netherlands. Furthermore, implementation of TOMP by national and international MaaS providers and transport operators is stimulated to enhance an efficient MaaS ecosystem.

What has been done so far?

The TOMP working group has been working with four working teams focused on specific topics. The working teams have weekly meetings to discuss ongoing issues. During the TOMP working group meetings a short recap of the progress of every working team is presented. The working teams are organized as follows:

- WT₁ – Technical issues
- WT₂ – Reference implementation and certification
- WT₃ – Standards and co-collaboration
- WT₄ – Dissemination and communication

For development and operations of TOMP semantic versioning is used. In July 2020 TOMP-API version 0.9.0 was published and simultaneously [Blueprint Dragonfly](#) with functional requirements for the API was distributed. Version 0.9.0 contains a full interface description of all functions that are needed for a MaaS journey, including operator information, planning, booking, trip execution, payment and support. Version 1.0.0 will be published in the fall of 2020 when parties have fully implemented the API and the TOMP working group received sufficient feedback to keep the API stable for a longer period of time.

In the release candidate for Dragonfly a few major changes have been made. The internal goal was to review the support module, which was successfully achieved. On the other hand, some first implementations of the TOMP API took place in the last couple of months which allowed to improve the API based on the lessons learned.

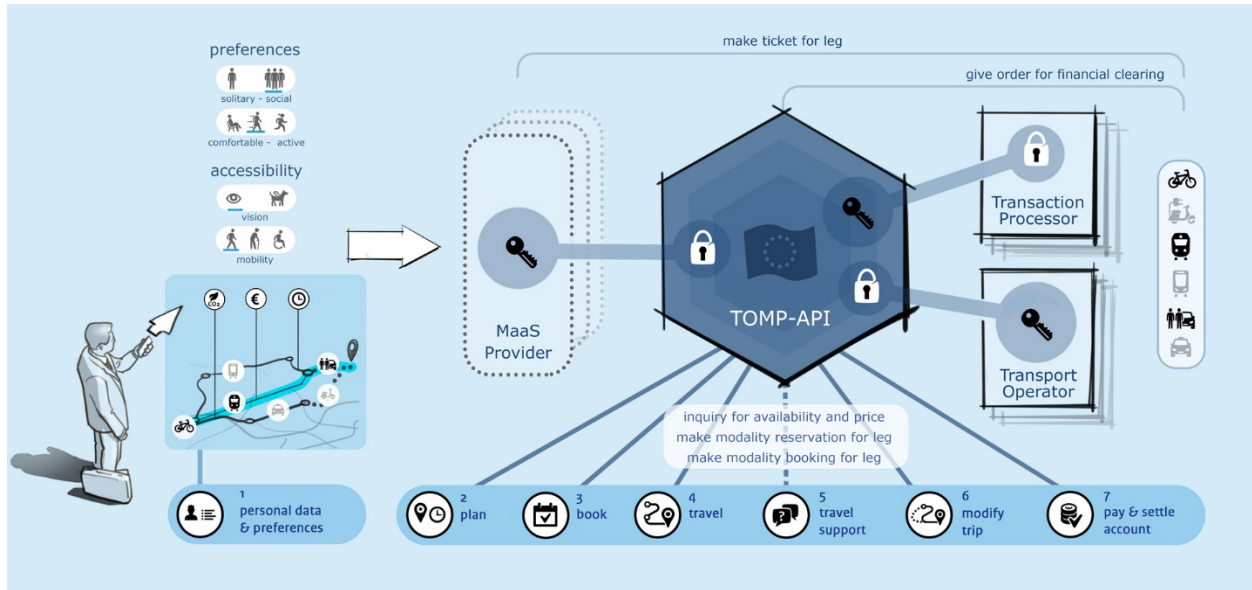
These results are specially reflected in a simplified object model in the planning phase (flattened the object structure of the leg) and a new endpoint with self-describing facilities was created. This last one is needed for (inter)national scale up, to be informed of what the addressed TO is capable of.

The open development of TOMP is managed on [Github](#) and more API-documentation with necessary API calls is available for consultation at [Swaggerhub](#). Updates on the working group are regularly posted at [LinkedIn](#).

To accelerate the use of TOMP reference implementations have been made. Accept Institute together with Nazza produced an international travel [demo](#) that integrated TOMP. The demo is based upon the existing European

Travellers Club (ETC) router infrastructure and demonstrates cross-border traveling. DAT Mobility created another open source [demo](#) for quick testing.

The TOMP-API was presented during various meetings and conferences, such as the Dutch MaaS conference in March 2020 and the eHubs webinar in May 2020.



Who is developing and implementing TOMP?

The TOMP working group is open for all stakeholders that want to participate in the development of the API. Meetings with the working group are organized on a bi weekly basis and attended by 15 to 25 persons.

The implementation of endpoints by various parties has been monitored by WT2 with an online survey. It was concluded that currently the main focus of implementation parties has been on endpoints regarding planning, booking, trip execution and operator information. The modules regarding payments and support have not yet been implemented by any party at the moment. All known stakeholders working on the development and implementation of TOMP can be found in [Blueprint Dragonfly](#).

Which milestones have been defined?

Version 1.0.0 of the API will be published in the fall 2020, it will include update modules of planning, booking and payment and new modules for user privacy and support.

A technical specification of the API will be published by the end of 2020 with detailed information for developers. The website <https://tomp-wq.org/> will be set up in the coming months and function as first point of contact.

For more information regarding TOMP, please contact Bon Bakermans – bon.bakermans@minienw.nl