ONETT

Open Network of Public Transport

At open summer of code

— 25 July 2019 —

Output of SNAP Project

ABSTRACT

ONETT has been created under the partner SNAP, giving a solution for a gap in the market of giving a efficient solution of new standard for transport data representation, according with the new EU regulation to join all the transport data across Europe, using access points to upload data using a multimodal and more accurate data representation than previous ones.

During the student programme oSoc19 which took place during the month of July in Madrid, Spain. The group of students developed the front and the back of the ONETT user app, this app is addressed to recommend fares to visitors or locals in order to find the best price for their rides. Among this app, the gross and the power of ONETT is its GTFS to TRANSMODEL converter, a state of the art tool developed entirely by us, to help transport enterprises to change their old GTFS files, CSV format, to TRANSMODEL, RDF format.

ONETT has been created with the ultimate purpose of improving public transport using public data, open for everyone, offered by transport stakeholders to make our cities more accessible, open for every European citizen.

ONETT
Open Network of public Transport

CONTEXT

ONETT provides an open source platform for all transport information of all European cities, in one APP, integrating all the data behind European regulation and TRANSMODEL standard with more information and more accuracy about the city transport wherever you are.

PUBLIC USER

For the common user who needs to search fares at the moment, we developed an app with which you will have an accurate search personalize rates, coverage all around the European cities, in addition to, have a complete integration for all the ways of transports, allowing so a precise and comfortable user experience.

STAKEHOLDERS

For a transport authority, we will provide a GTFS data conversion service to the new model that conforms to current European regulations. This tool offers you a fast and comfortable way to actualize your transport data.

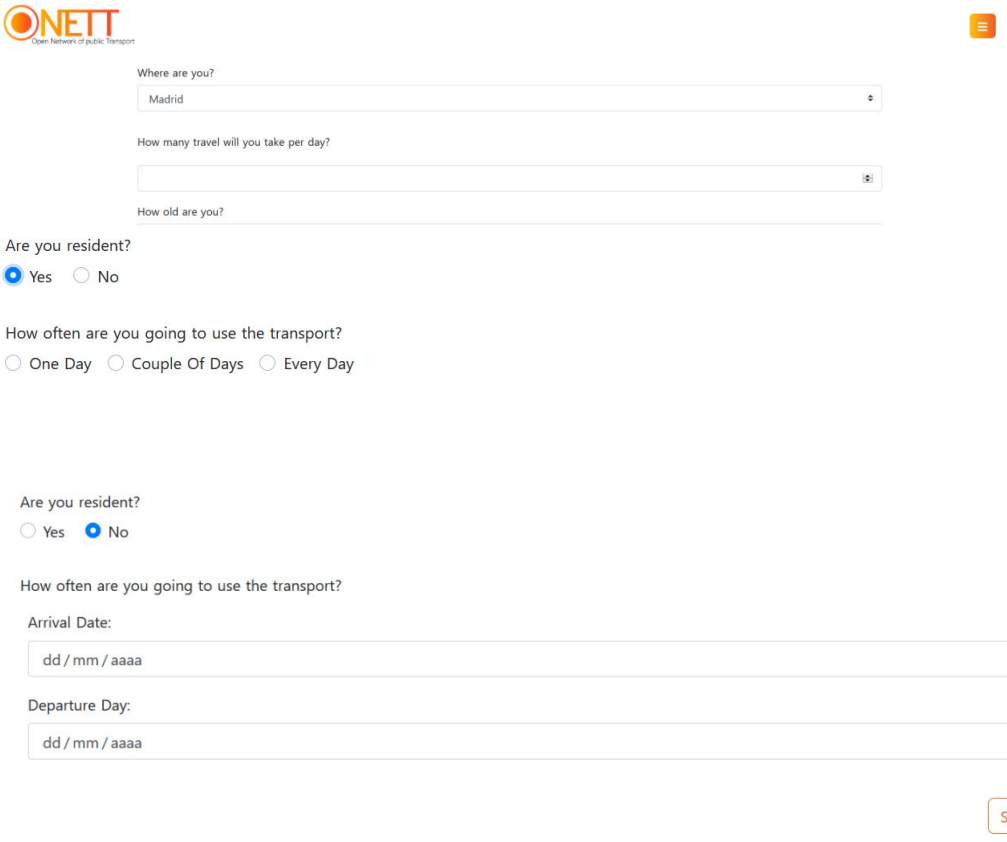
THE PRODUCT

FARES RECOMMENDATION

If you have travelled to a different country inside EU, you probably realized that you needed to download a different app for your Smartphone just to know the train, bus, or tube fares, lines or stops. And the fastest answer for that is different data representations for the same data information.

For that our app allows you to compare different fares of transports of the European city where you are.

FUNCTIONALITY



Form 1 – general form

Form 2.1 – form for residents

Form 2.2 – form for visitors/tourists

GTFS TO TRASNMODEL CONVERSOR

For transport authorities our option is a converter from GTFS representation to TRANSMODEL standard, allowing them to update all their data in a simple snap to European directive 2010/40/EU of European parliament and of the Council with regard to the provision of EU-wide multimodal travel information services is an enabler for increased modal shift and the promotion of sustainable modes of transport.

The improvement respect the other model is the Access points that will be across Europe where transport authorities will upload all their data in this new data model representation in order to improve the interoperability of the service and the information for the customer/user.

FUNCTIONALITY

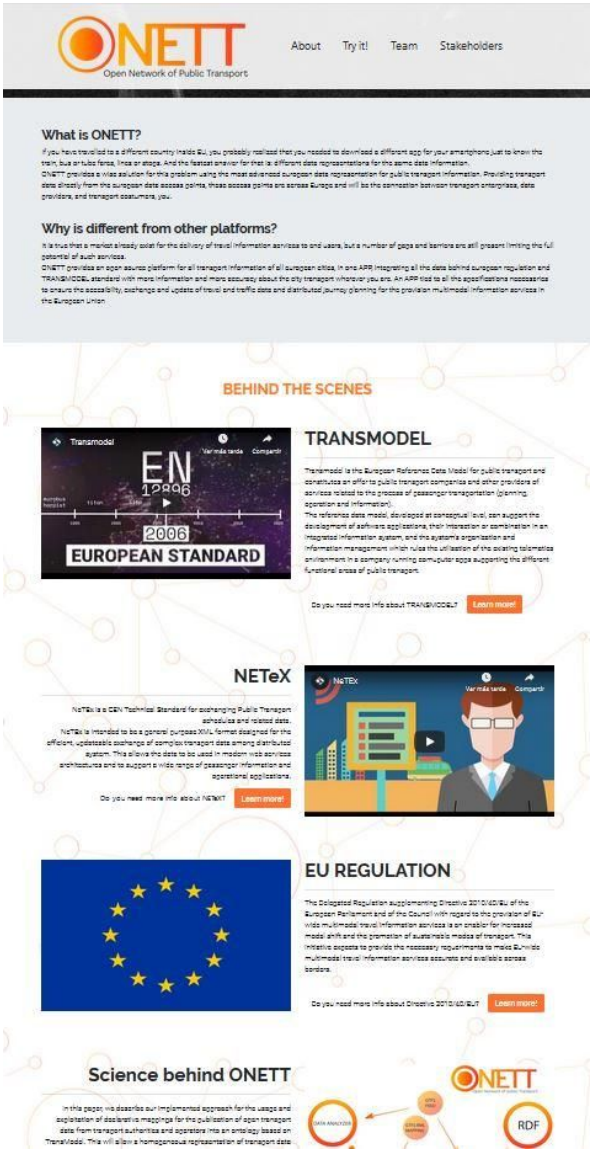
Converter tool interface for authorities, simple UX to just upload GTFS files (all of them) and automatic conversion to TRANSMODEL

BUILDING THE SOLUTION

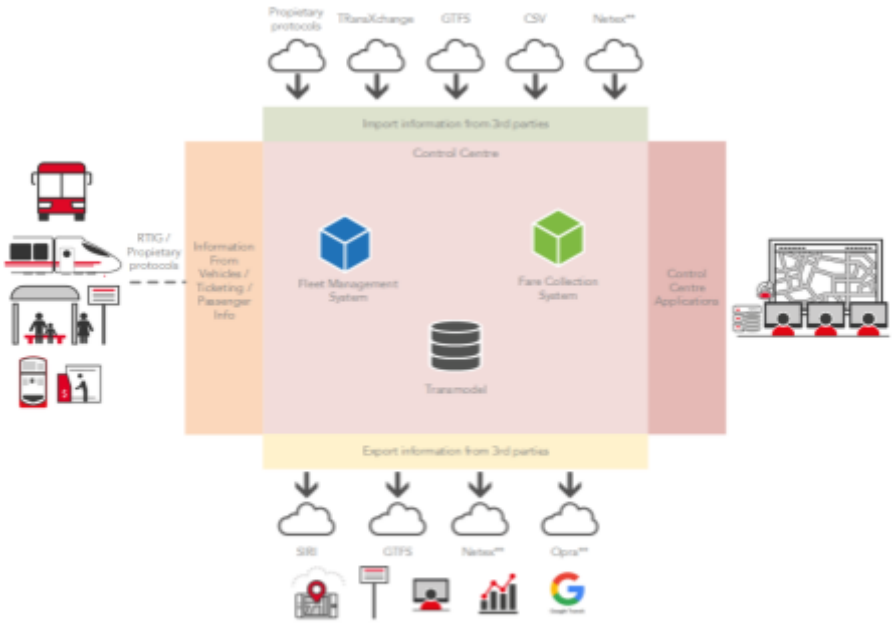
FRONTEND WEB

A Github page has been implemented in HTML & CSS for this project, take a look here:

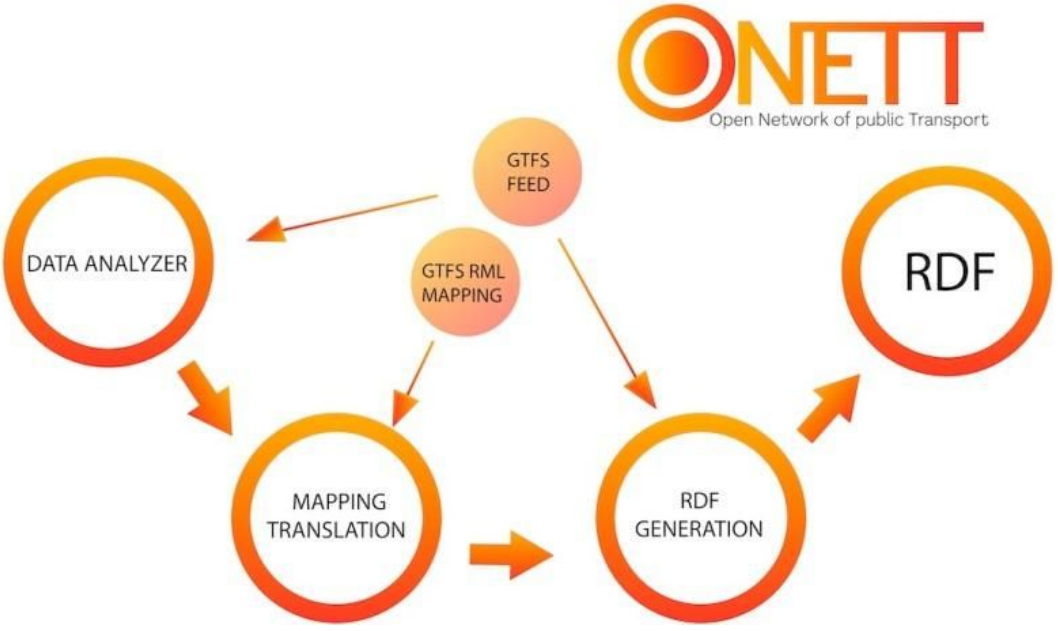
https://osoc-es.github.io/onett/



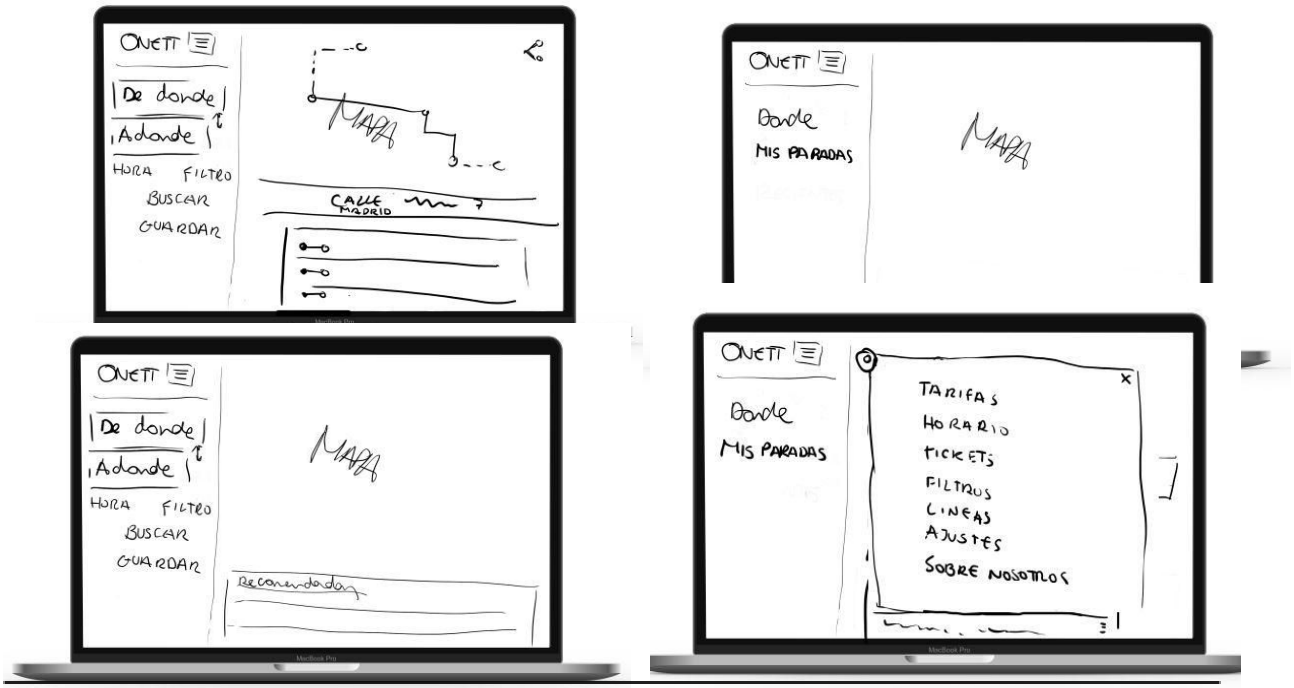
BACKEND

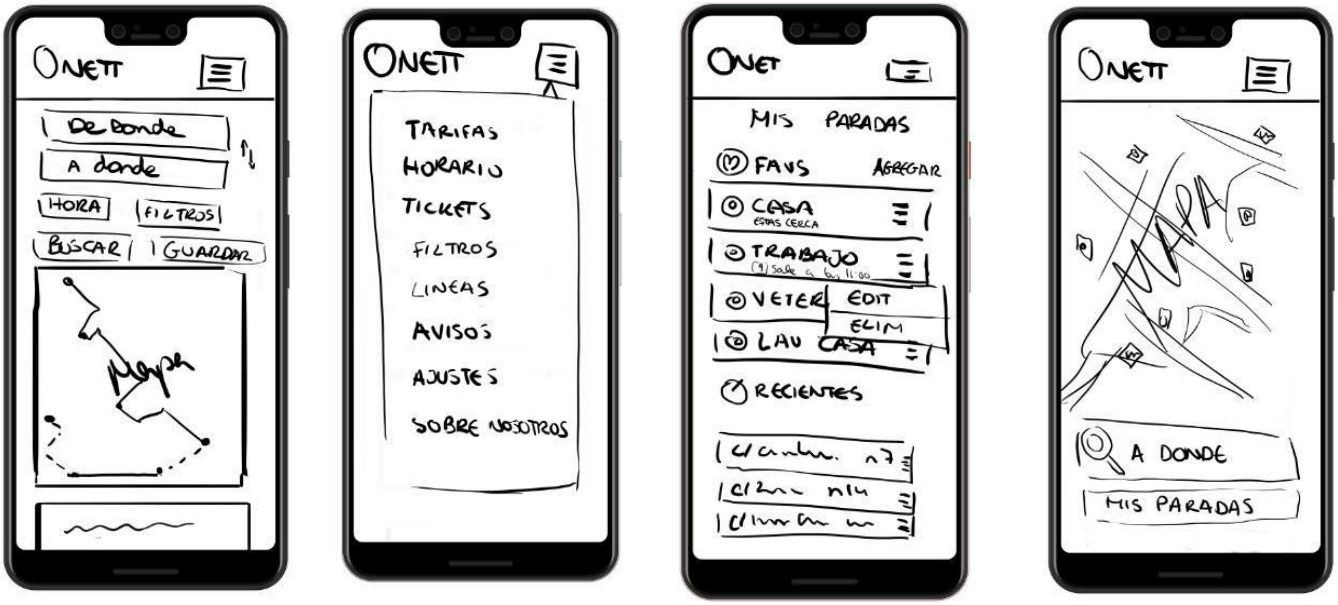


Source: http://www.transmodel-cen.eu



DRAFTS, WIREFRAMES & MOCKUPS



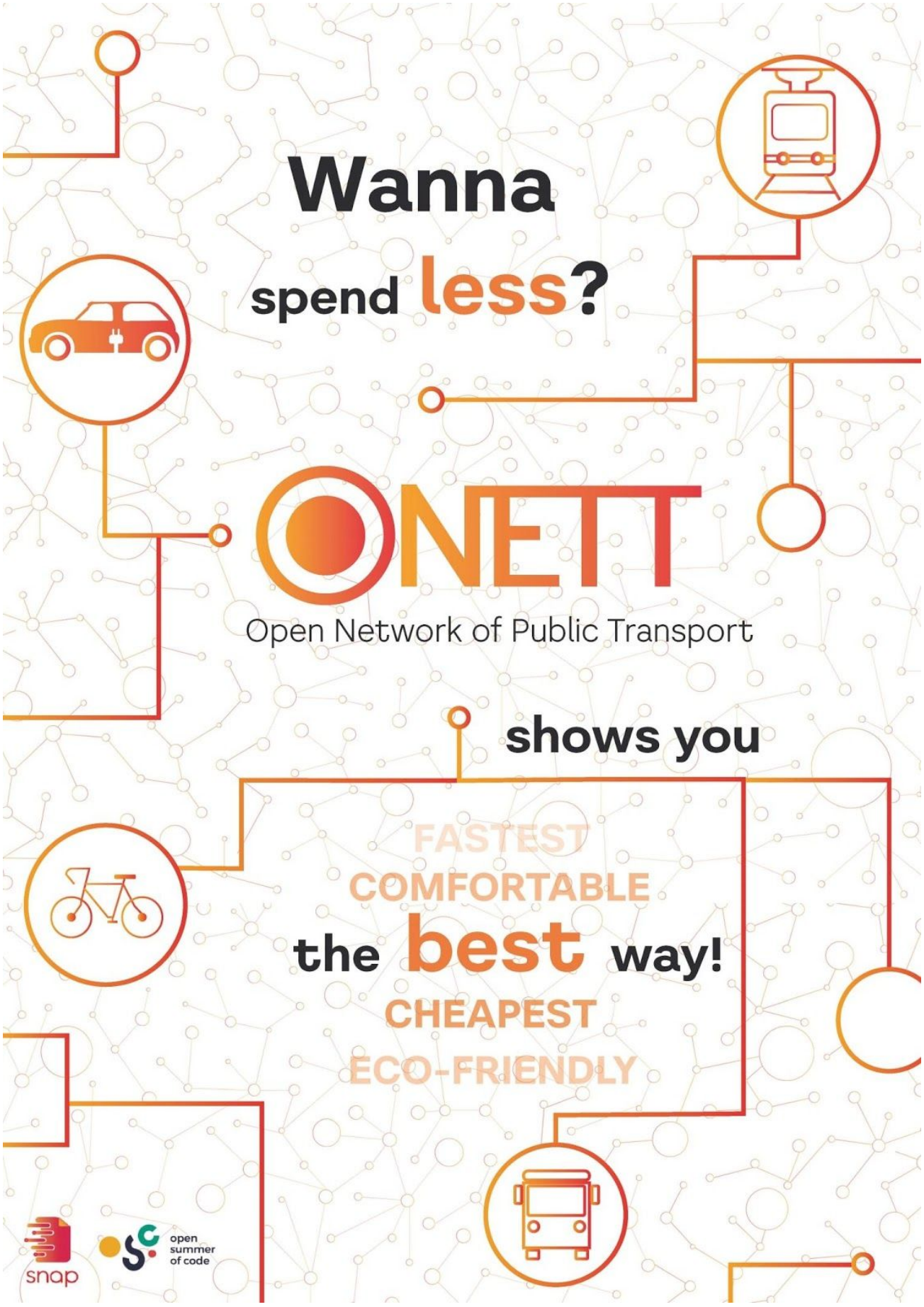


BRANDING

Wanna spend less?

ONETT
Open Network of Public Transport

Shows you the cheapest way!


Wanna
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Open Network of Public Transport
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FASTEST
COMFORTABLE
the best way!
CHEAPEST
ECO-FRIENDLY
snap
open summer of code

IMPROVEMENTS

THE FUTURE

The availability of homogeneous transport data from worldwide transport authorities and operators gives us the possibility of creating new types of applications related to transport (trip planners, fare calculators, ticket recommenders, etc.) that can be deployed easily in different regions or cities.

VALUE FOR OPEN SOURCE/OPEN DATA COMMUNITY

Our code was made open for all the community, this allows to share data easily to from stakeholders to developers, in order to have a better data flow which helps to improve the transportation in a city.

TO IMPLEMENT

- Improve our fares recommendation app to give better coverage in a wider range of cities to our customers/users.

FUTURE IDEAS

- Our target for a long term is integrated our user app among with travel, free-time websites, offering to our users a better and more efficient travel planning, knowing before being in the destination, the public transport fares of the city that they are going to visit.

RESEARCH

Our app is based on a hard work of R&D doing during the open summer of code, in Madrid, Spain. All of these science obtained have been grouped together in a scientific paper.
In this paper, we describe our implemented approach for the usage and exploitation of declarative mappings for the publication of open transport data from transport authorities and operators into an ontology-based on TRANSMODEL. This will allow a homogeneous representation of transport data across EU transport-related organizations and will minimize the need to understand ad-hoc heterogeneous representation formats for transport data as currently published by them. We will show how we are creating and using RML

mappings for the specific case of transforming GTFS data into a TRANSMODEL-based ontology. In the future, such data may be further transformed into other formats such as NeTEx.
If you want to read the full article go here: https://osoc-es.github.io/onett-paper/output/

FEEDBACK

“The goal of this solution is enabling data conversion, decreasing the time required to perform it and allowing your transportation data to be fully compliant with the EU Regulation.”

“If the aim of the EU transport policies is to allow safe, sustainable and connected transport services, ONETT makes journeys quicker and safer, while promoting sustainable and digital solutions.”

Adolfo Antón – SNAP project advisor

“With ONETT everyone is able to perform multimodal transport services in a SNAP!”

Jhon Toledo – ONETT team leader

TEAM

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Developer & Team Leader

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Graphic Designer

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Developer

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MENTORS

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APPRECIATIONS

PARTNERS

INSTITUTIONS

Open Summer of Code 2019

Madrid, Spain