

# #Navitia: how to build cool apps and services with an #OpenTransport toolbox?



navitia.io

# Simplify mobility with digital services, MaaS solutions

Kisio Digital, Keolis' digital subsidiary



**110** employees



**13** French Regions (PTA)

Transportation multimodal platforms



**+100** Public transport networks

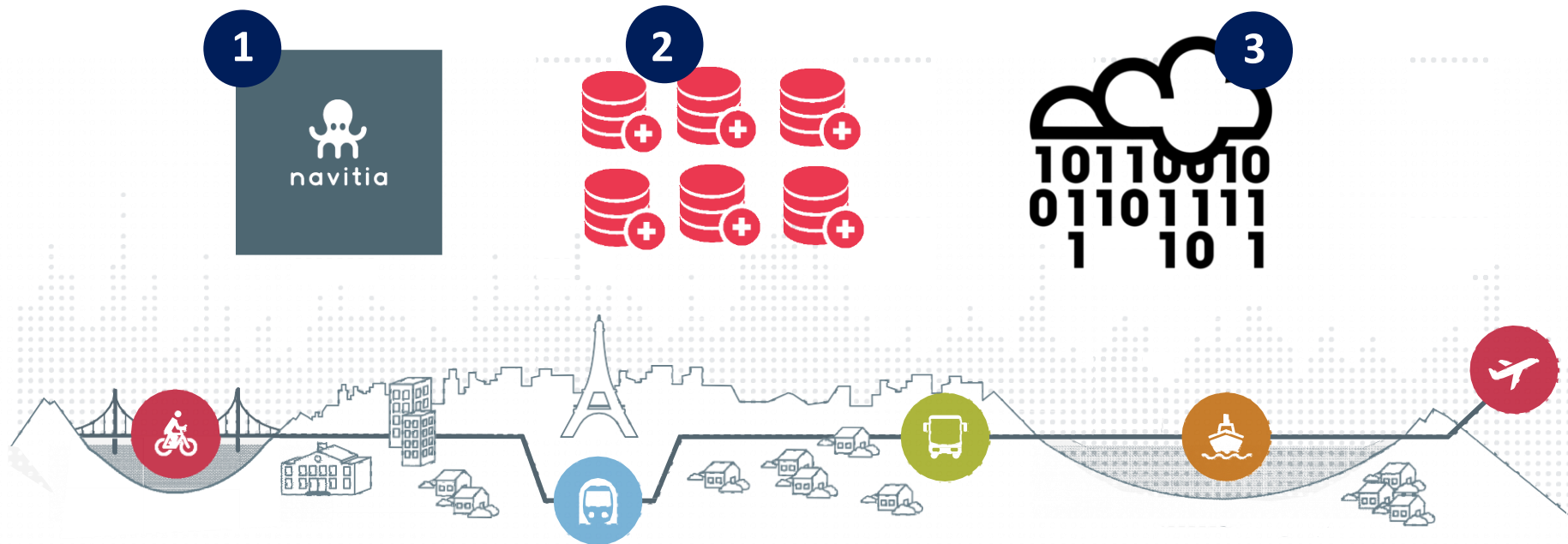


**+1 bln** journey plannings on Navitia

Connected mobility solutions for travelers,  
public transport operators and developers

# Building Mobility as a Platform of Services

## #Navitia #OpenTransport #MaaPs



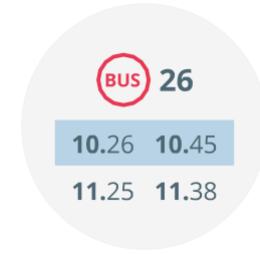
# Navitia: six main features



Journey planner



Transportation data  
exploration



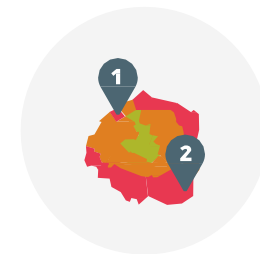
Timetables



Next departures



Around me  
(space and time)



Isochrons  
(heat maps)

# Navitia: being part of an open transport ecosystem, promoting openness, collaboration in transportation sector



Kisio digital opensource products  
for building cool stuff with transport data



## Applications

### Navitia

C++, Python

Navitia is the open API for building cool stuff with mobility data.

### Navitia Playground

Javascript

Web UI for the navitia API

### Chaos

Python

Chaos is the web service which can feed Navitia with real-time disruptions. It can work together with Kirin which can feed Navitia with real-time delays.

### Mímirsbrunn

Rust

Mímirsbrunn is a geocoding service build upon Elasticsearch. It is an independent service, but Navitia uses it as it's global geocoding service.

## Libraries

### Navitia Component

PHP

A PHP Library for querying navitia webservice.

### libosm pbfreader

C++

A simple C++ library to read OpenStreetMap binary files.

### Stay tuned !

There is more to come...



**OpenStreetMap France**  
Cartographions le monde rue après rue...



**Jungle Bus**

You want to reuse or contribute to Navitia?  
➡ <https://github.com/CanalTP/navitia>

# Promote open innovation with Navitia transportation toolbox: API, SDK, data, software

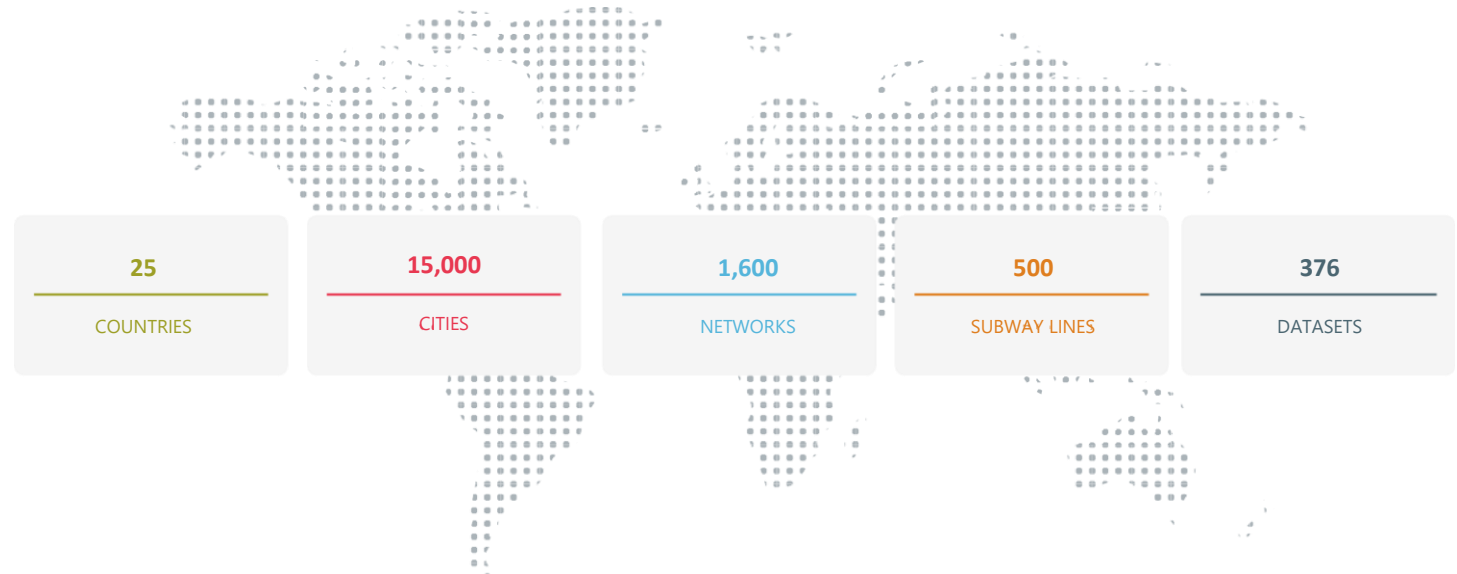


# Navitia Open data bar, A worldwide transportation open data hub

Transportation  
data collected  
from Transit  
agencies  
(PTA/PTO)

+ One data set  
crowdsourced  
with Jungle Bus  
community  
and AFD in  
Accra (Ghana)

380 open datasets  
freshly updated,  
cleaned-up,  
and available



Budapest • New York City • Sydney • Paris • London • Berlin • Sao Paulo • Helsinki  
Stockholm • Brussel • Madrid • Barcelona • Milano • Auckland • Boston • Seattle • Texas  
Portland • Los Angeles • San Francisco

*OpenDataSoft inside*

# How (almost...) anyone can take advantage of Transportation datas using Navitia?

## USE CASES



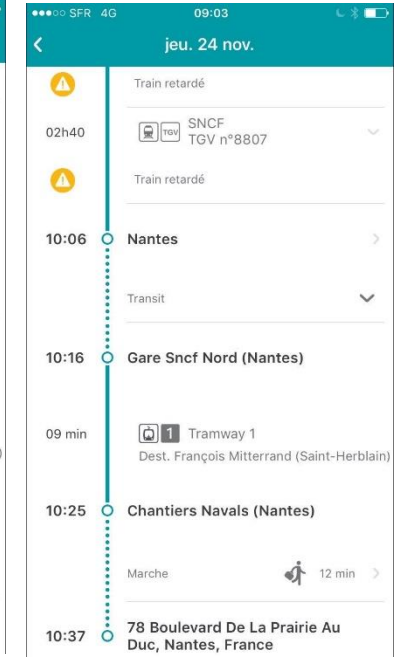
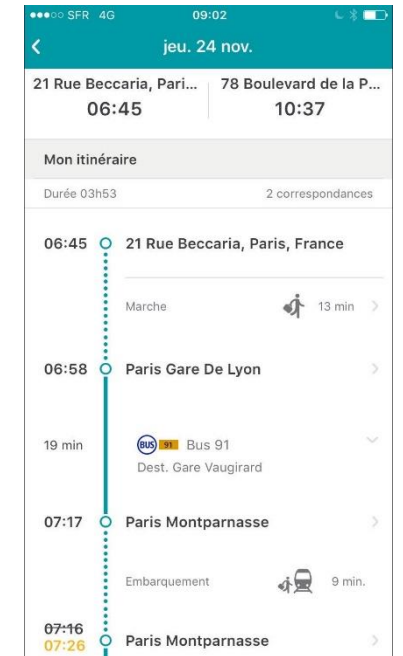
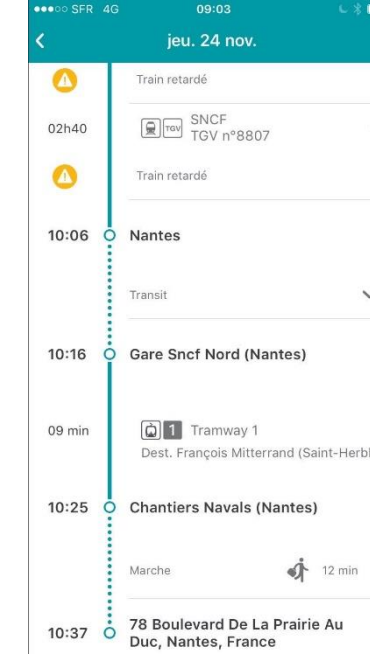
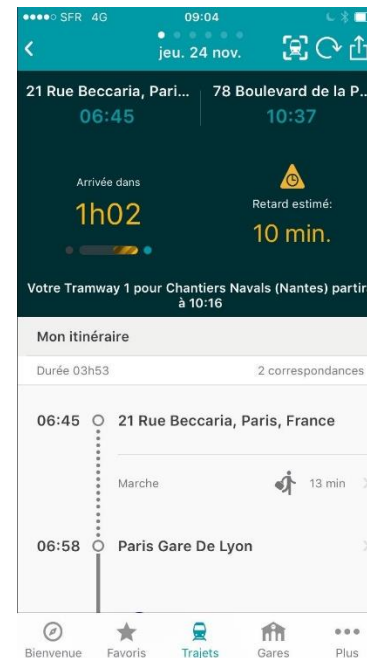


# TRANSPORT



## Passenger information mobile App

*A new door-to-door  
and multimodal  
journey planning  
experience, on  
short and long  
distances  
(all-in-one app)*



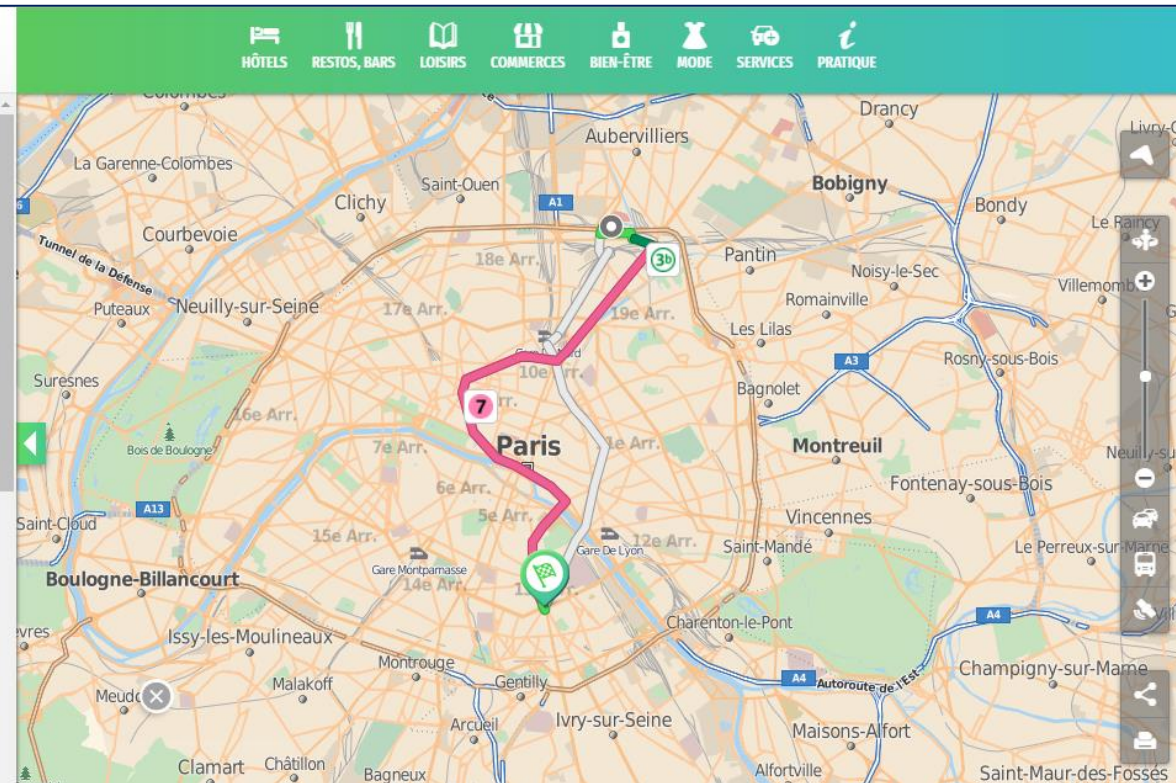
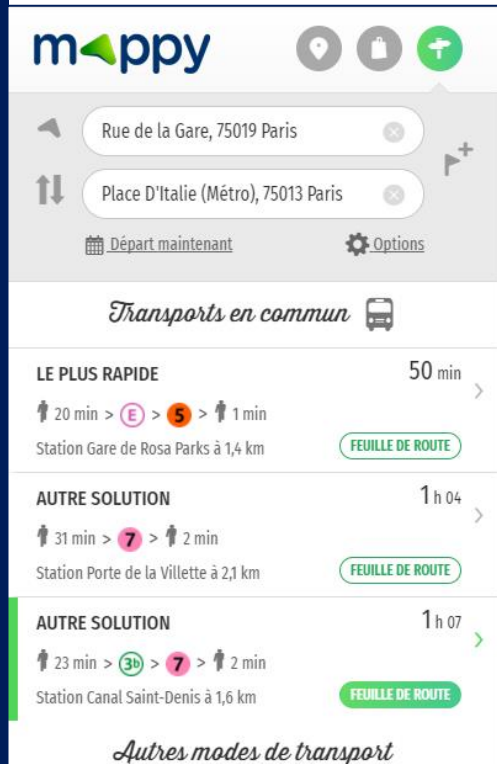
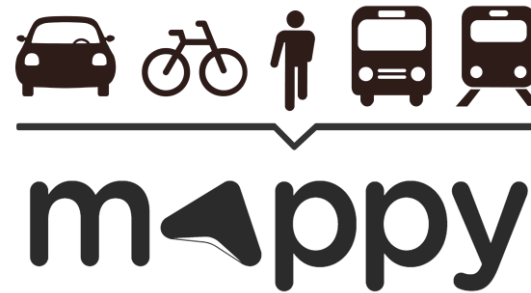
# TRANSPORT MOBILE APP



## Mappy mobility comparator

Allows to find  
alternative routes  
with Public  
transport instead of  
using personal car

Compares all  
multimodal  
solutions  
(Public transport, bike  
sharing, car sharing,  
car pooling, Taxi,  
personal car...)





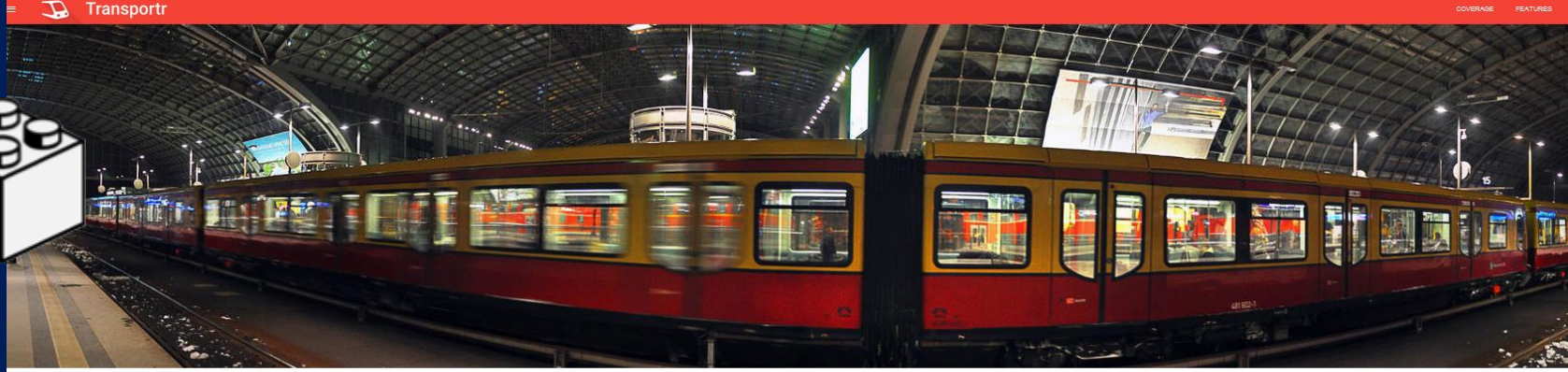
# TRANSPORT

## Transportr mobile app

The open source  
public transport  
mobile app  
that respects  
your privacy

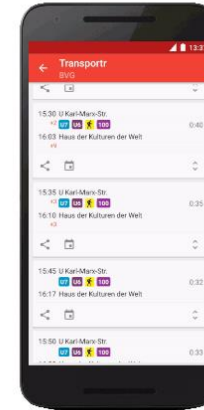
A citizen / non-profit  
project, available  
for Android and  
F-Droid versions,  
in 21 countries,  
52 cities, with open  
data inside

And soon with Accra  
opendata inside



The public transport companion  
that respects your privacy and  
your freedom.

Transportr is a non-profit app developed by  
people around the world to make using  
public transport as easy as possible  
wherever you are.



<https://transportr.grobox.de/>

# TRANSPORT NEW SERVICES WITH CHATBOT

## TramBots

*Conversational web  
services based on  
Facebook Messenger*

*You simply talk to the  
chatbot to get  
information you need*

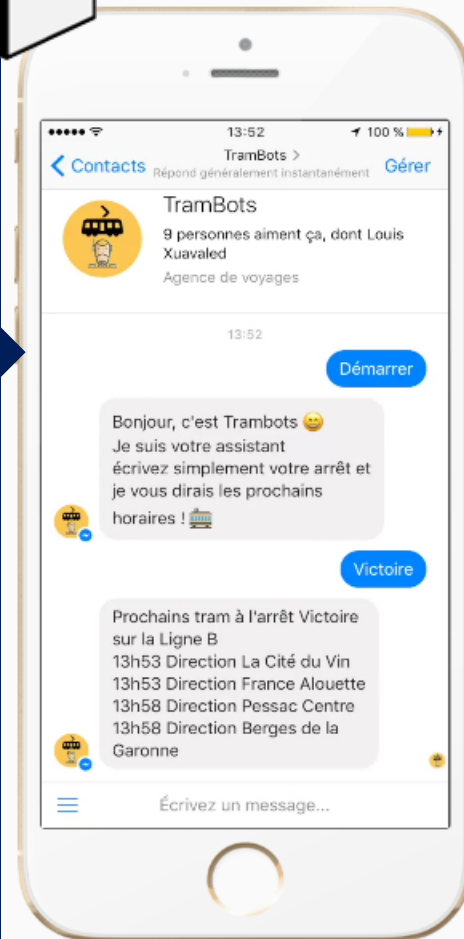
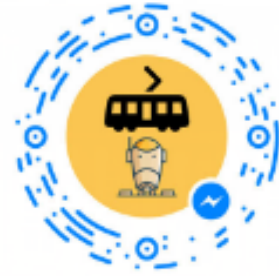
*Available in 5 french  
cities*

*Will soon be part of  
« Invisible apps »  
found in WhatsApp,  
WeChat, Facebook  
Messenger,...*



## TRAMBOTS ?

Le futur des Transports en commun.

[TramBots](#)[Villes](#)[Equipe](#)[Contact](#)[⚡ Lancer TramBots !](#)

### MACHINE LEARNING

TramBots **évolue** constamment. Plus il a d'interactions avec des humains plus il **comprend & anticipe** les réponses.



### COMMUNAUTAIRE

Qu'il y ait **5, 10 ou 100** personnes en même temps, le bot redistribue l'**information** avec la même **qualité**.



### AU QUOTIDIEN

Plus de **temps libre** pour vous, plus de **facilités** dans vos déplacements et finalement toujours **à l'heure**. 😊

# Researcher Andrea Cuttone dataviz



Analysing travel  
times (accessibility)  
in Boston city  
with isochronous  
Navitia feature  
to enhance public  
transport offer,  
urban planning



Andrea Cuttone

about  
projects  
resume  
blog

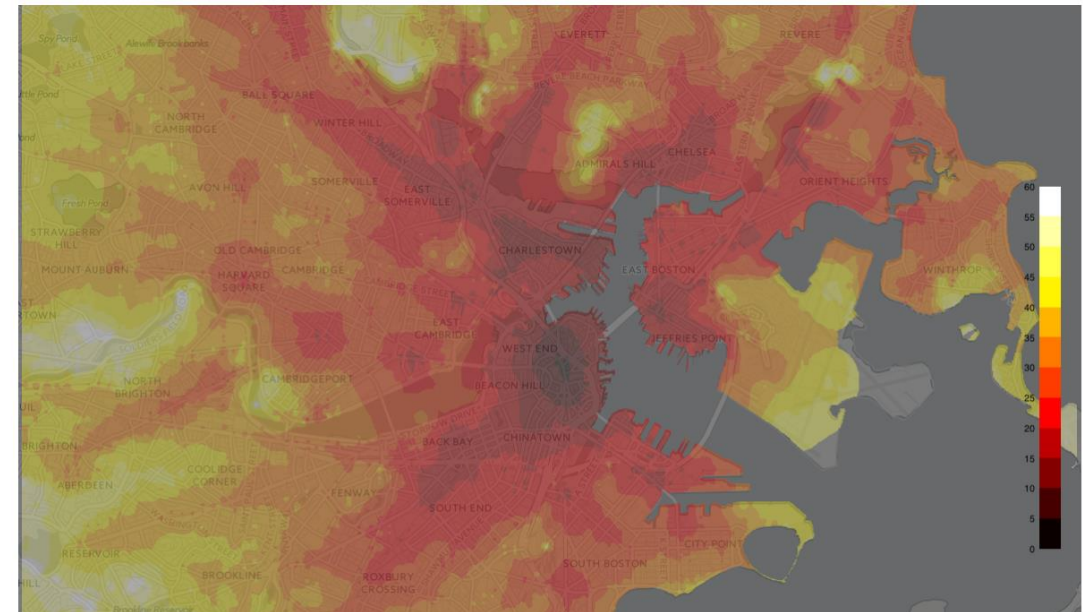


## Visualizing travel time in Boston

Posted on Sun 04 October 2015 in [Blog](#)

I recently moved to Boston, and as always when moving to a new city, one starts to wonder "how long does it take to get around?". So I decided that it would be **more efficient to automate the answer**.

The idea is to fix a starting point (the Boston City Center), then measure how long does it take to get to a specific point in the surroundings using the public transport. This collection of travelling times can then be visualized on a map (click on the image for a higher resolution version):





# JOB BOARD WITH TRAVEL TIMES

BimBamJob

Integrate Public  
transport travel time  
to help job seekers  
finding jobs near  
their home



# BimBamJob

BimBamJob Conseils Les métiers Ils utilisent BBJ

Candidats Recruteurs Centres de formation

Les offres d'emploi près de chez moi

Je veux m'occuper de...

Mon adresse

Véhicule ☐ OUI ☐ NON

CHERCHER ✓

BimBamJob Conseils Les métiers Ils utilisent BBJ

Candidats Recruteurs Centres de formation

Les offres d'emploi près de chez moi

Enfants

20 Rue Hector Malot, 75012 Paris-12<sup>e</sup>

Véhicule ☐ OUI ☐ NON

CHERCHER ✓

CDI

**Offre 343** Auxiliaire Petite Enfance, Auxiliaire de Puériculture, Garde d'enfants  
Début le 2 janvier 2016

Nombre d'heures par semaine : moins de 10h  
Salaire (brut / heure) : 9,73 €

29 minutes de chez vous

CDI

**Offre 364** Auxiliaire de Puériculture, Auxiliaire Petite Enfance, Garde d'enfants, Sortie d'école  
Début le 3 janvier 2017

Nombre d'heures par semaine : 10h-15h

36 minutes de chez vous

TEMPS DE TRAJET MAXIMUM

45 min

15 min 3h

BimBamJob Conseils Les métiers Ils utilisent BBJ

Candidats Recruteurs Centres de formation

Les offres d'emploi près de chez moi

Enfants

20 Rue Hector Malot, 75012 Paris-12<sup>e</sup>

Véhicule ☐ OUI ☐ NON

CHERCHER ✓

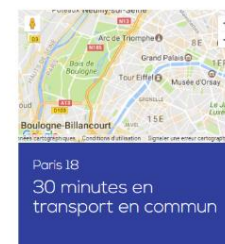
CDI A domicile

**Offre 343** Auxiliaire Petite Enfance, Auxiliaire de Puériculture, Garde d'enfants  
Début le 2 janvier 2016

Zone d'intervention : Paris 18  
Nombre d'heure par semaine : moins de 10h  
Salaire (brut / heure) : 9,73 €  
Public : Enfants  
Véhicule : Non  
Permis : Non  
Formation : Non

- BEP Carrières Sanitaires et Sociales
- Assistant De Vie aux Familles (ADVf)
- Diplôme d'Etat d'Auxiliaire de Puériculture (DEAP)
- Assistant(e) Maternel(le) - Garde d'enfants
- CAP Petite Enfance
- Diplôme d'Etat d'Auxiliaire de Vie Sociale (DEAVS)
- Diplôme d'Etat d'Aide Soignant (DEAS)
- Bac Pro Accompagnement Soins et Services à la personne (ASSP) - Option à domicile

POSTULER À CETTE OFFRE



Integrate Public  
transport travel time  
combined with real  
estate data for  
people who look for  
a flat in greater  
Paris Region area

# REAL ESTATE DIGITAL SERVICES WITH PUBLIC TRANSPORT

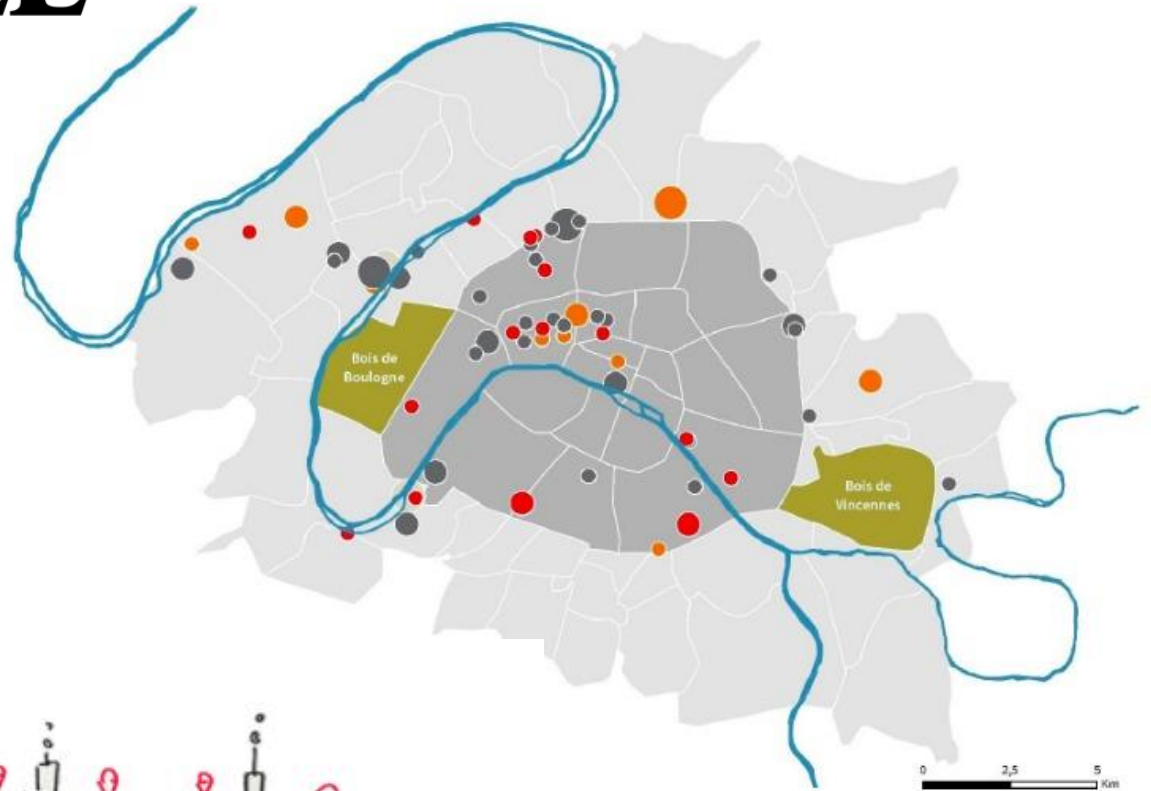


Next Office

Jones Lang Lasalle

How to improve  
employees life  
quality by limiting  
travel times to go  
from their home to  
the office?

Using isochron  
Navitia feature to  
make Company  
travel plan





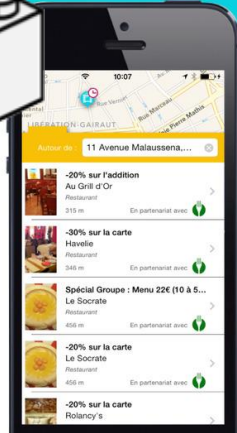
# CITY GUIDE MOBILE APP WITH PUBLIC TRANSPORT INFORMATION

Urban Pulse  
(Veolia Group)

Schedules, travel  
times, journey  
planning for citizens  
and tourists to get to  
best places to be  
(bar, restaurant,  
theater, concert,  
cultural activities)



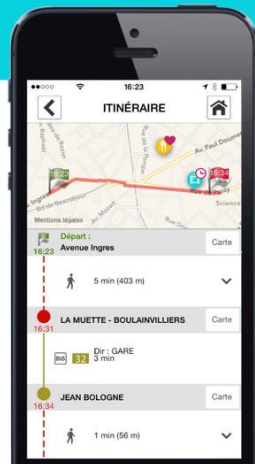
...un resto avec  
promos pas loin ...



Je trouve une  
sortie pour ce soir...



...l'itinéraire  
pour m'y rendre...



...et on se retrouve  
là-bas !

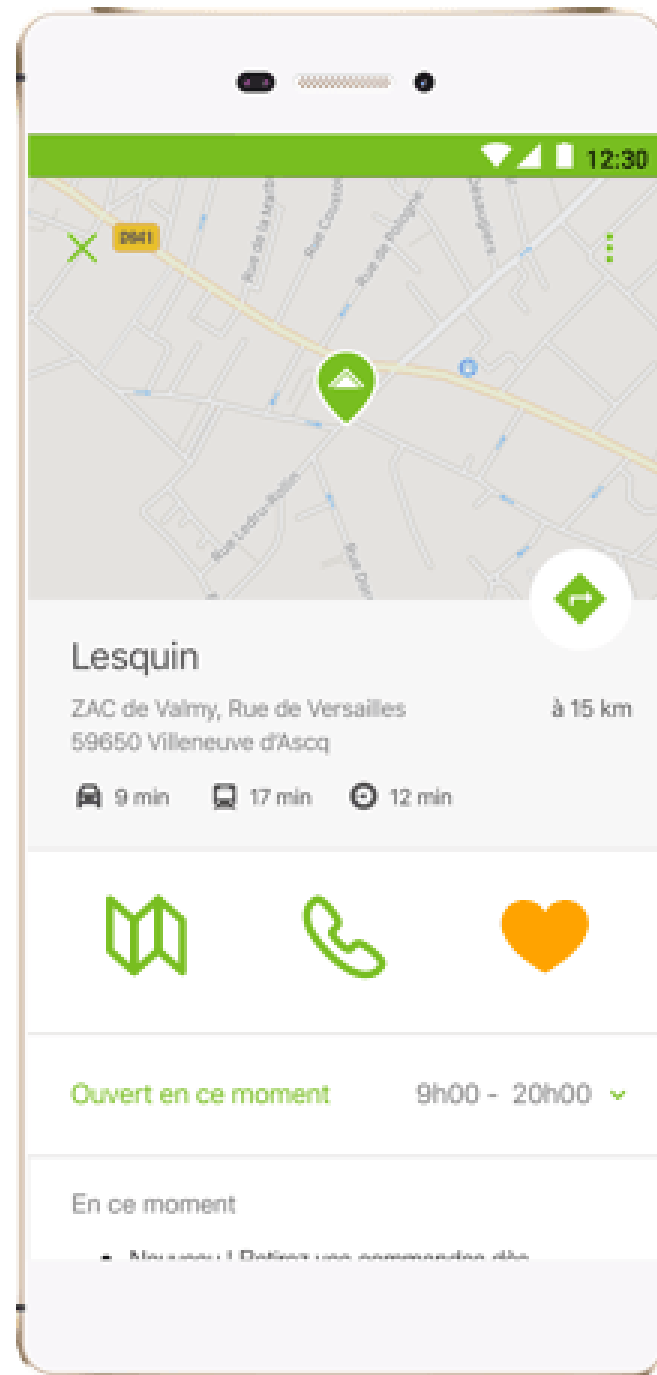


# RETAIL / GO TO SHOP



## Leroy Merlin mobile app

How customers  
can easily get to  
their favourite shop  
with public  
transport?





## WE NEED TRANSPORTATION DATA

If you want to open  
your transit data,  
publish  
and promote them  
on Navitia API, contact  
us on [www.navitia.io](http://www.navitia.io)



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\* These fields are mandatory

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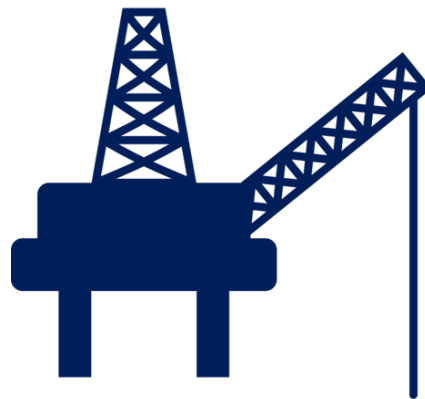
\*

[SEND](#)

# #OpenTransport: enhance an open services platform for better collaboration, to simplify mobility

More information on:

[www.kisiodigital.com](http://www.kisiodigital.com) and  
[www.navitia.io](http://www.navitia.io)



SOFTWARE  
DATA  
API

Open service and open data: [www.navitia.io](http://www.navitia.io) API



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