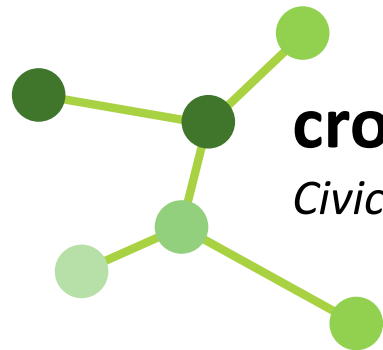


# Apps for Public Involvement:

## *Introduction and Recommendations*

Andrew Nash  
[andy@andynash.com](mailto:andy@andynash.com)



**[crowdsourced-transport.com](http://crowdsourced-transport.com)**

*Civic Technology for Sustainable Transport*

# Apps for public involvement

- **Crowdsourcing is public involvement “2.0”**
- **5 types of crowdsourcing:**
  - Reporting
  - Collect and analyze data
  - Collaborate
  - Act
  - Intend
- **Recommendations**
- **And, one final thought.**

# What is Crowdsourcing?

## *Crowdsourcing ...*

- *Uses communications and IT ...*
- *to outsource activities and functions ...*
- *once performed by institutions ...*
- *to a large, undefined network of people.*

*Report*



Report an Issue

Follow this Place

Sort by: Hotness ▾

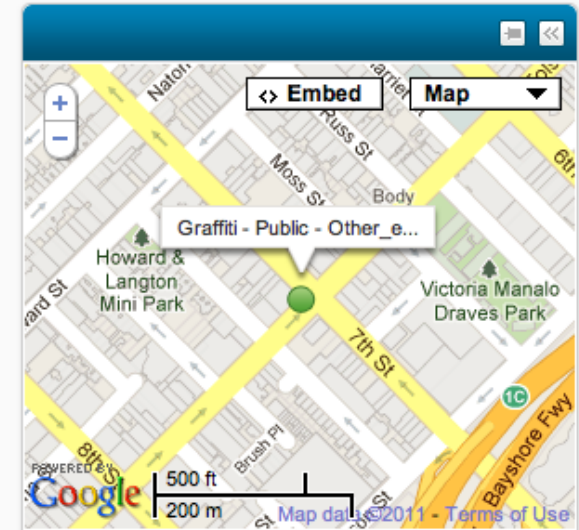
- 2

**Graffiti - Public - Other\_enter\_additional\_details\_below**  
**Acknowledged**  
 290-298 7th St San Francisco, CA 94103, USA - South Of Market  
 reported about 8 hours ago  
 SF311 about 8 hours ago  
 Your request to SF311 has been accepted. Your service request ID is 992366  
[Join the conversation!](#)
- 2

**Garbage and/or overgrowth near building** **Acknowledged**  
 142 Brighton Ave San Francisco, CA 94112, USA - Ingleside  
 reported about 9 hours ago  
 SF311 about 9 hours ago  
 Your request to SF311 has been accepted. Your service request ID is 992335  
[Join the conversation!](#)
- 2

**Graffiti - Public - Other\_enter\_additional\_details\_below** **Acknowledged**  
 Ocean Ave & Aptos Ave San Francisco, CA 94127, USA - Ingleside  
 reported about 9 hours ago  
 SF311 about 9 hours ago  
 Your request to SF311 has been accepted. Your service request ID is 992333  
[Join the conversation!](#)
- 2

**Illegal Dumping** **Acknowledged**  
 1927 Alemany Blvd San Francisco, CA 94112, USA - Outer Mission  
 reported about 15 hours ago



Top Users Who's Watching

- Sinclair
- Raph
- Neighboreyes
- hubbert
- sodapop

[More Top Users Nearby >](#)

## Generic Reporting App – SeeClickFix



# FixMyTransport

Euston, we have a problem

BETA

[ABOUT](#) [FEEDBACK](#)

[mysociety](#)

[DONATE](#)

[OUR SITES](#)

[Sign in or sign up](#)

## Had a bad train journey?

Report your problem with a:

STOP or STATION

JOURNEY or ROUTE

and we will help you get it fixed



Follow us on Facebook



Follow us on Twitter

How does it work?

### What FixMyTransport does

- ✉ Reports problems
- 🔍 Finds people responsible
- ❤ Grows support
- 📶 Tracks progress
- ✓ Gets things done

### FixMyTransport Launches!

Welcome to FixMyTransport, a site specially built for public transport users in Britain who want to make public transport better for us all. We've worked hard to make the site work well, but we're sure there are plenty of things we won't have got quite right - so please do [send us feedback](#) if there's anything that's not right, or anything you'd like to see added or improved.



### Browse Site

[View recent issues](#)

[View routes by region](#)

[Map of issues](#)

## Customised Reporting App – FixMyTransport

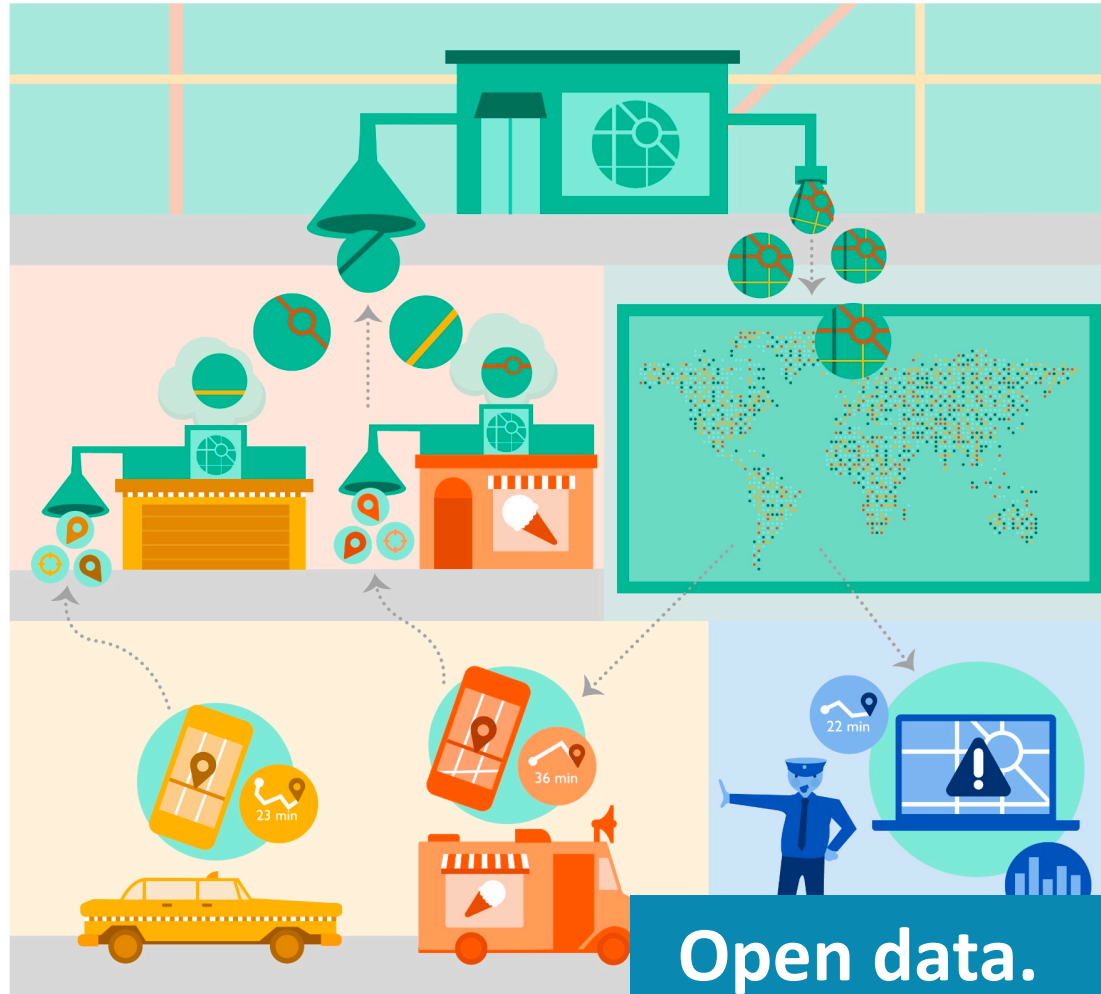
feeling sunny you could even leave a compliment about a route or station that you think is particularly



*Analyse*

# Collecting & Analysing data is *easy*

- Open data;
- Transport application data (tracking);
- Resident-collected data (cheap sensors).



**Open data.  
Mash-ups.  
Hack-a-thons.**

**Open transport data – [opentraffic.io](http://opentraffic.io)**

## Enter New Trip



**Open Source Bike Tracking App – Cycle Tracks (SF)**





## What's Street Bump?

Street Bump is a crowd-sourcing project that helps residents improve their neighborhood streets. Volunteers use the Street Bump mobile app to collect road condition data while they drive. The data provides governments with real-time information to fix problems and plan long term investments.

**Report potholes automatically using smart phone accelerometer.**

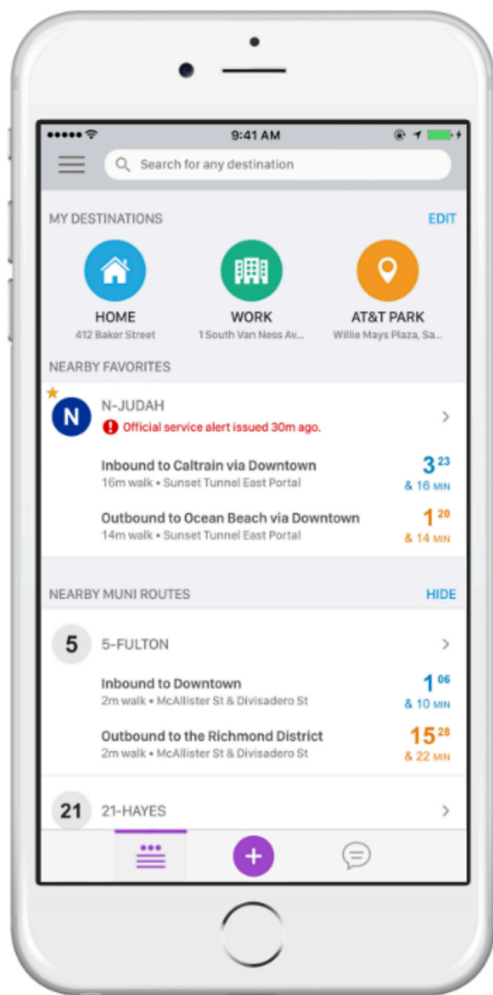
### Where is Street Bump being used?

1,837 trips recorded, 102,506 bumps detected

**17** bumps reported in Boston, Massachusetts about 15 hours ago



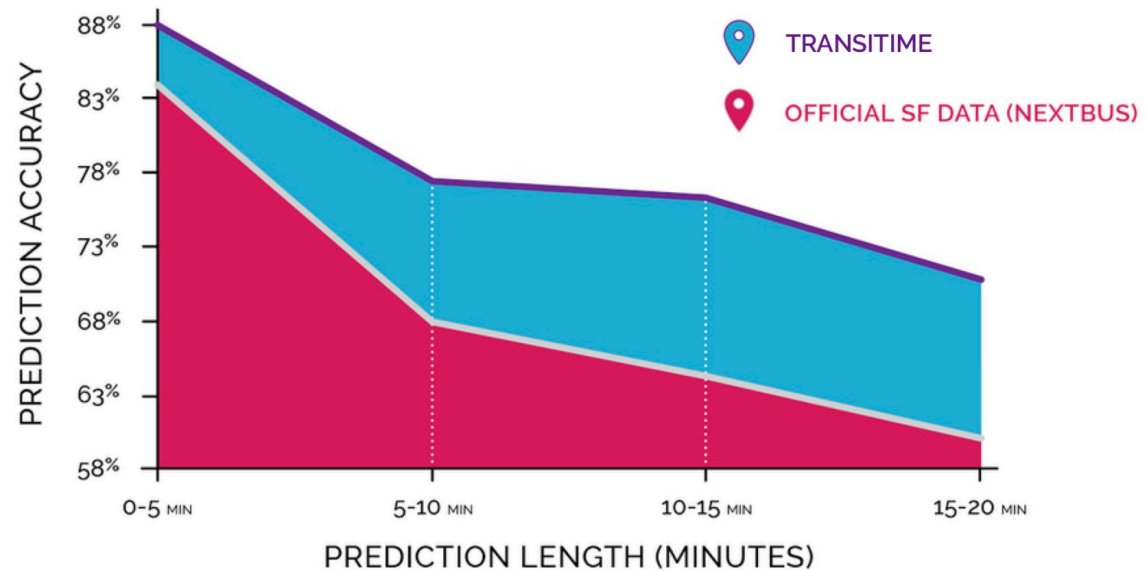
**Sensor-based Reporting – Street Bump (Boston)**



## Meet Transitime

Swiftly has developed a more accurate real-time transit arrival prediction algorithm, called Transitime, to provide you with more accurate arrival and departure times. These predictions are accurate up to 20% more often than most current city-wide systems and bus stop signs.

### PREDICTION ACCURACY



**Swift app and “Transitime” analysis tool**

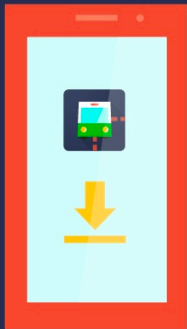
*More accurate than transit agency data?*



## ¿Cómo participo?

---

1



### Descarga la app

Disponible para dispositivos Android 4.1 y superior.

2



### Mapea

Usa la app para registrar tus recorridos en autobús, microbús y vagoneta en equipo o de forma individual.

3



### Gana premios

Los mapeadores más activos ganarán aparatos electrónicos y hasta 30,000 pesos en efectivo.

# Using GPS tracking (& games) to crowdsource a map

*Mexico City private mini-buses*



## What is WayCount?

WayCount is a hardware and web platform for crowdsourcing automobile and bicycle traffic count data.

WayCount was created with the belief that when we collectively gather and share traffic count data, together we can create a leap in understanding the movement patterns of automobiles and bicycles worldwide. As a result, we can positively influence transportation design decisions and create better cities.

The WayCount device works like other traffic counters, but has two key differences: **lower cost** and **open data**. At 1/5th price of the least expensive comparable product, the WayCount device is affordable. The WayCount [Data Uploader](#) allows you to seamlessly upload and map your latest traffic count data, making it instantly available to anyone online.

## What Does WayCount measure?

WayCount measures and records the following four parameters:

- The **quantity** of automobiles and bicycles



## Why Count Traffic?

Data is Power. Collectively, the WayCount user community has the potential to build a rich repository of traffic count data for busy boulevards, bike paths, alley ways, neighborhood streets, and any other traffic path that deserves measurement. With a better understanding of automobile and bicycle ridership patterns, we can inform the design of better cities and towns.

W...  
tra...  
pu...  
cr...  
co...  
necessary improvements to the design, maintenance, and policy of transportation systems.

This information can be used in combination with, or separately from, conventional measurements like Annual Average Daily Traffic (AADT). AADT is a standardized indicator for measuring the rate of automobiles traveling down a street and is a value used by transportation engineers to help guide changes to

**Your own traffic counter.**  
**Cost: 200 Euros.**

# Resident data collection – WayCount traffic counter

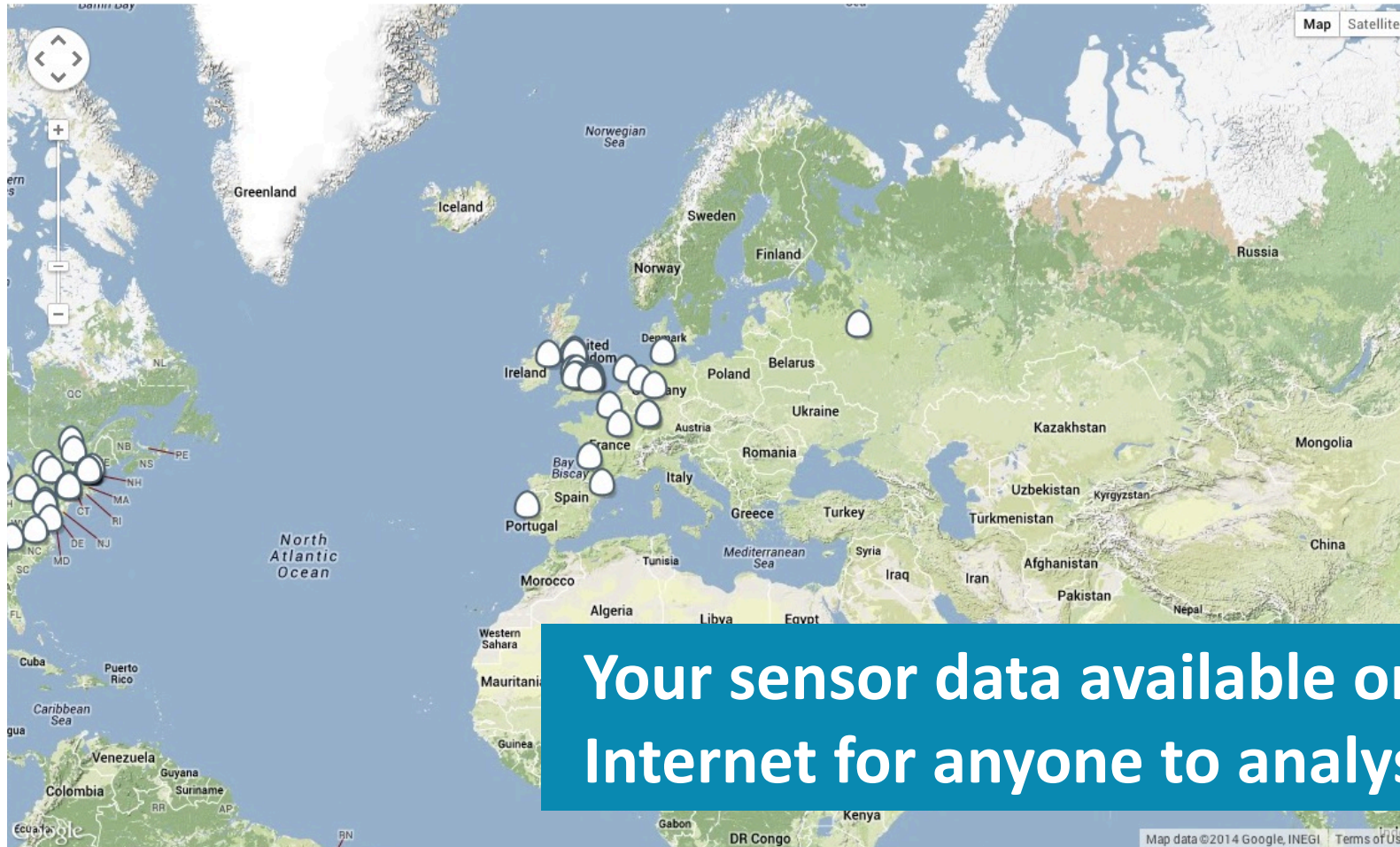


**Air Quality Egg**

community-led sensing network

Serial Number

ADD MY EGG



**Your sensor data available on the Internet for anyone to analyse.**

### What is it?

A community-led air quality sensing network that gives people a way to participate in the conversation about air quality.

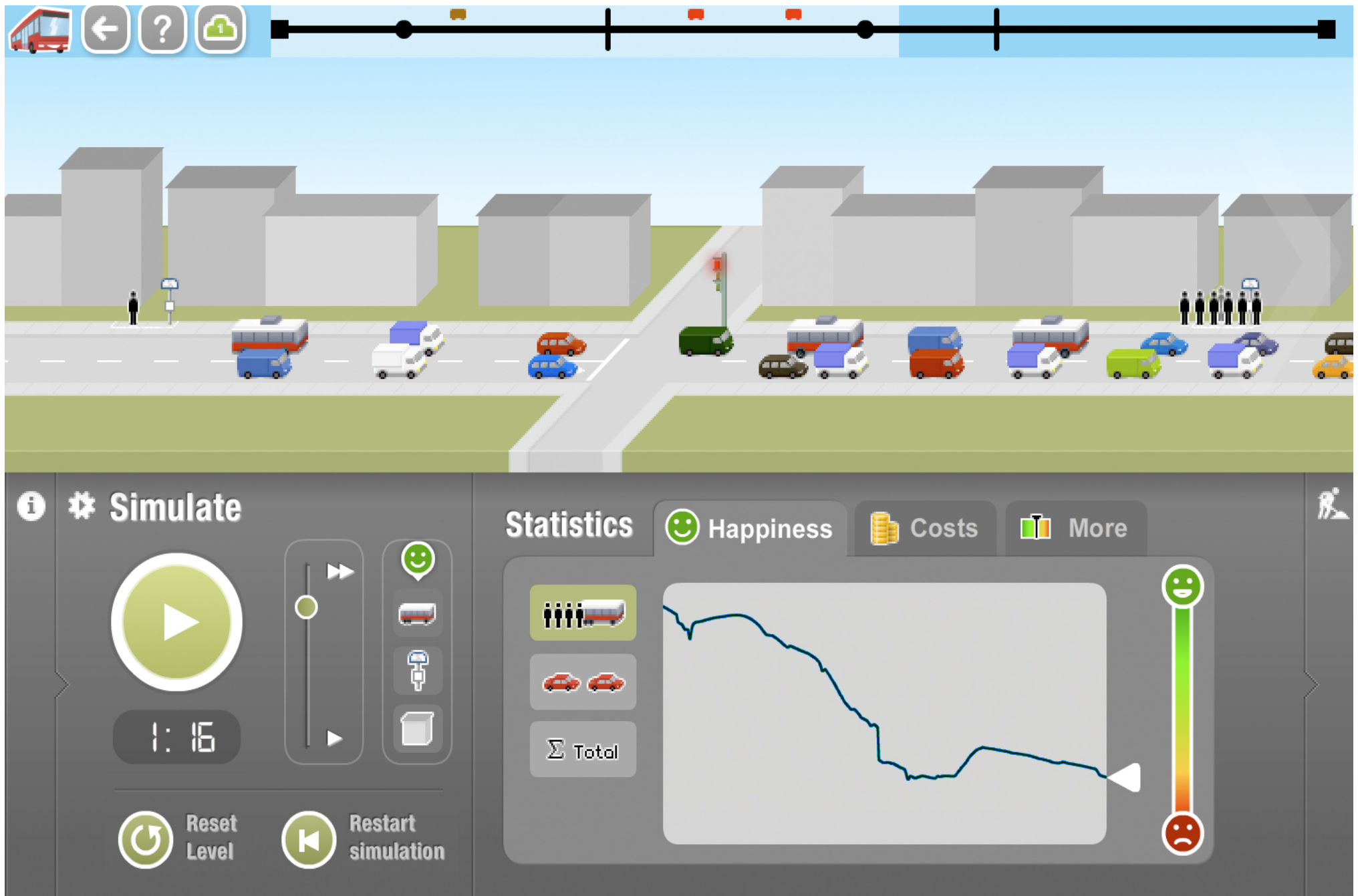
# Sharing resident-collected data - Air Quality Egg

*Collaborate*

# Collaboration is more *efficient*

- **Education** – problems are complex;
- **Process** – meetings are difficult;
- **Engagement** – more is better.





## Education: Games – Bus Meister



## Education: Visualisation – streetmix.net



### 1. Talk things through

Start a discussion on any topic, and bring in the right people. Share diverse perspectives and develop ideas together.



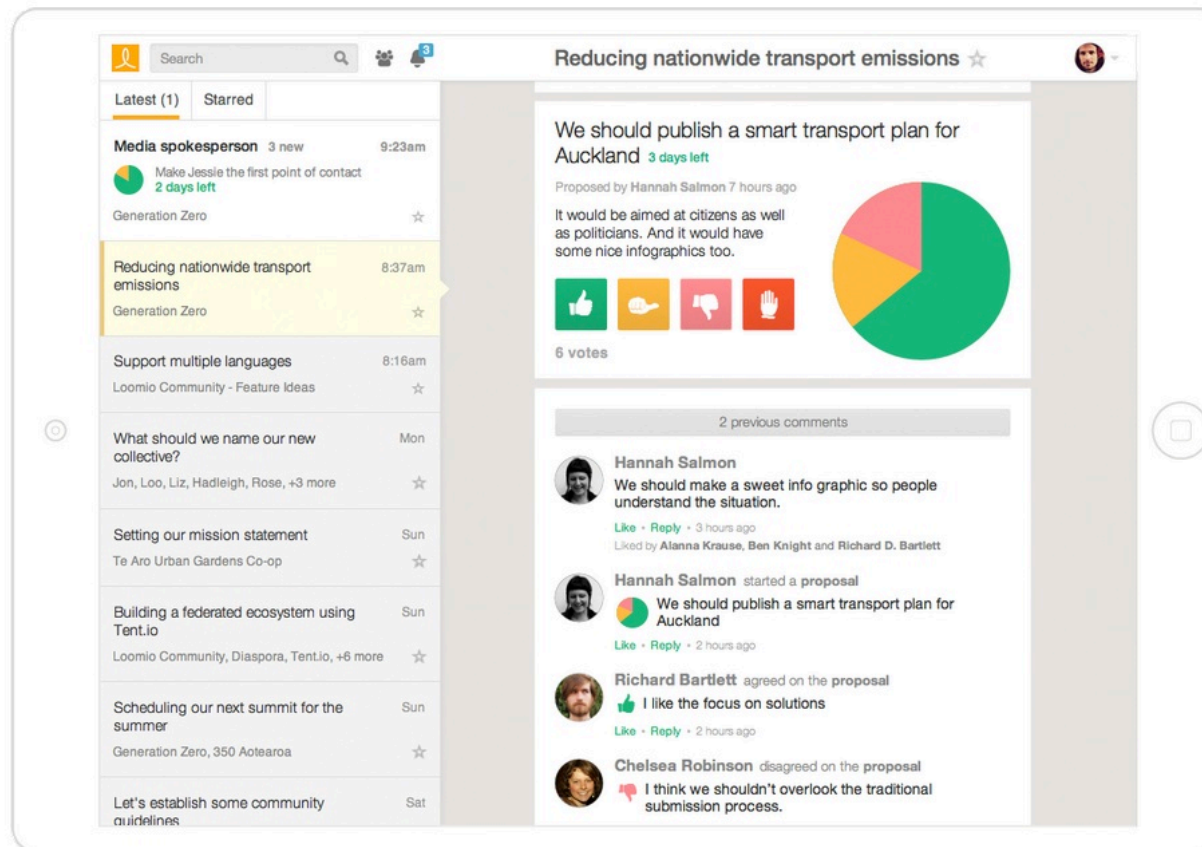
### 2. Build agreement

Anyone can propose a course of action. People can agree, abstain, disagree, or block – so you can see how everyone feels, and why.



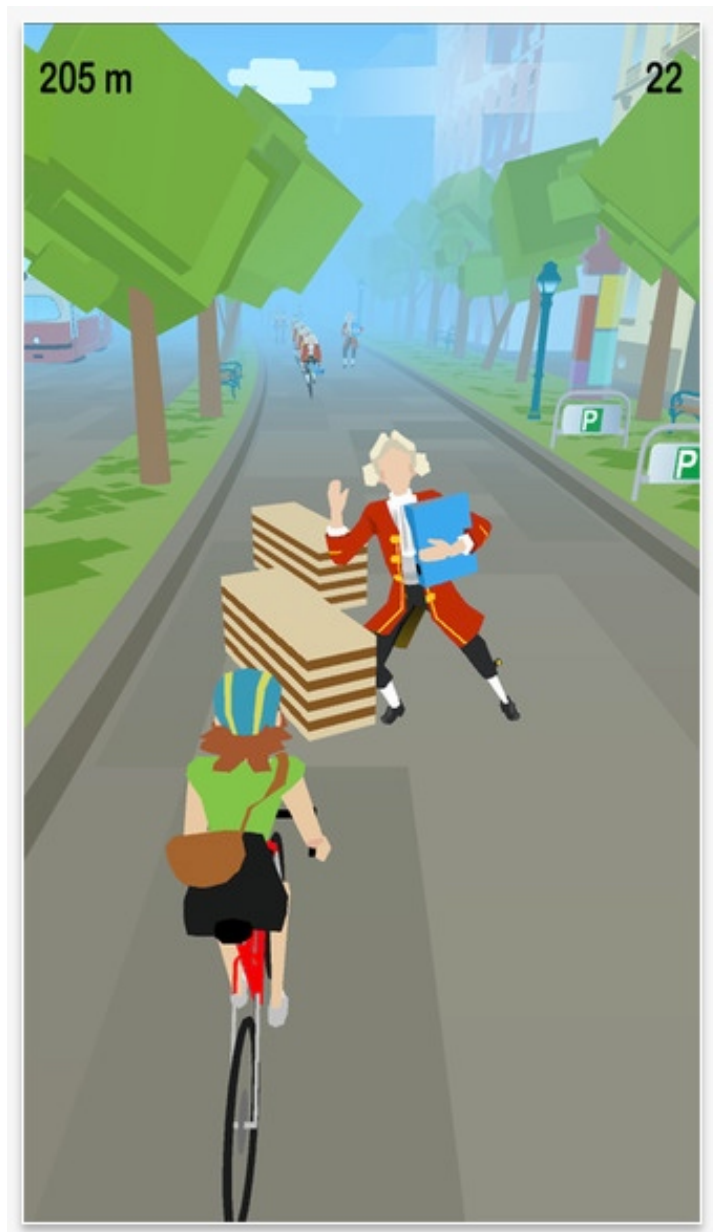
### 3. Decide together

Develop the proposal together so that it works for everyone. Every decision has a clear deadline, so you always get a clear outcome.



# Collaboration tools and app – Loomio





Ringstrasse 150 - Ring Ride

Help make the Ringstrasse better

Organisationen

**RADLOBBY**  
ÖSTERREICH

Radlobby Wien

In Wien kümmern sich die Radlobby-Vereine ARGUS (Arbeitsgem

Rad-Ärgernisse direkt an die Zuständigen der Stadt Wien senden? Das geht ganz

Rasen am Ring

Die Plattform „Autofreie Stadt“ tritt am Internationalen Autofreien

## Engagement: Games – Ring Ride Vienna

*Act*

## *Actions are organised*

- *DYI* ... do it yourself → bike lanes, pedestrian signs;
- *Change* ... travel patterns → Chromaroma, Walk-a-Stop;
- *Fund* ... local projects → Spacehive, Kickstarter;
- *Provide* ... transport service → Uber, BlahBlahCar, Bridj;
- *Create* ... open source software and apps → travel
- *Share* ... food with neighbours → Casserole;

# IT'S NOT TOO FAR.

Plan, design and install quick, light and affordable street signs for people.

 Follow @WalkYourCity

 Like 2.2k

 Feedback & Support



## DYI – Do it yourself – Signs (Walk Your City)

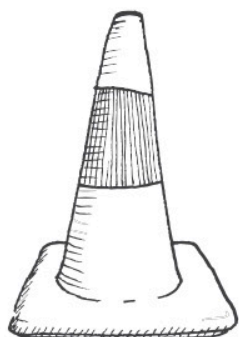
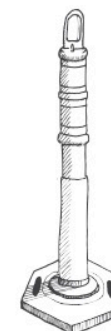
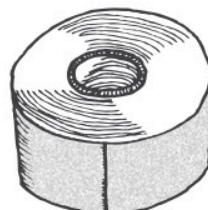
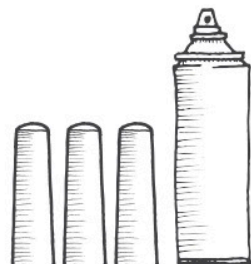
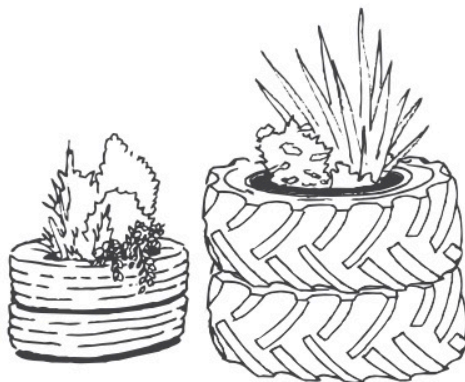


# STEAL THIS IDEA: A \$600 PROTECTED BIKE LANE DEMO AT AN OPEN-STREETS EVENT



*Chrissy Lee of the Minneapolis Bicycle Coalition sets up a "pop up" bike lane demo last summer.*

**DYI – *Do it yourself* – Bike lane (Minneapolis)**



# TACTICAL URBANIST'S GUIDE TO MATERIALS AND DESIGN **VERSION 1.0**

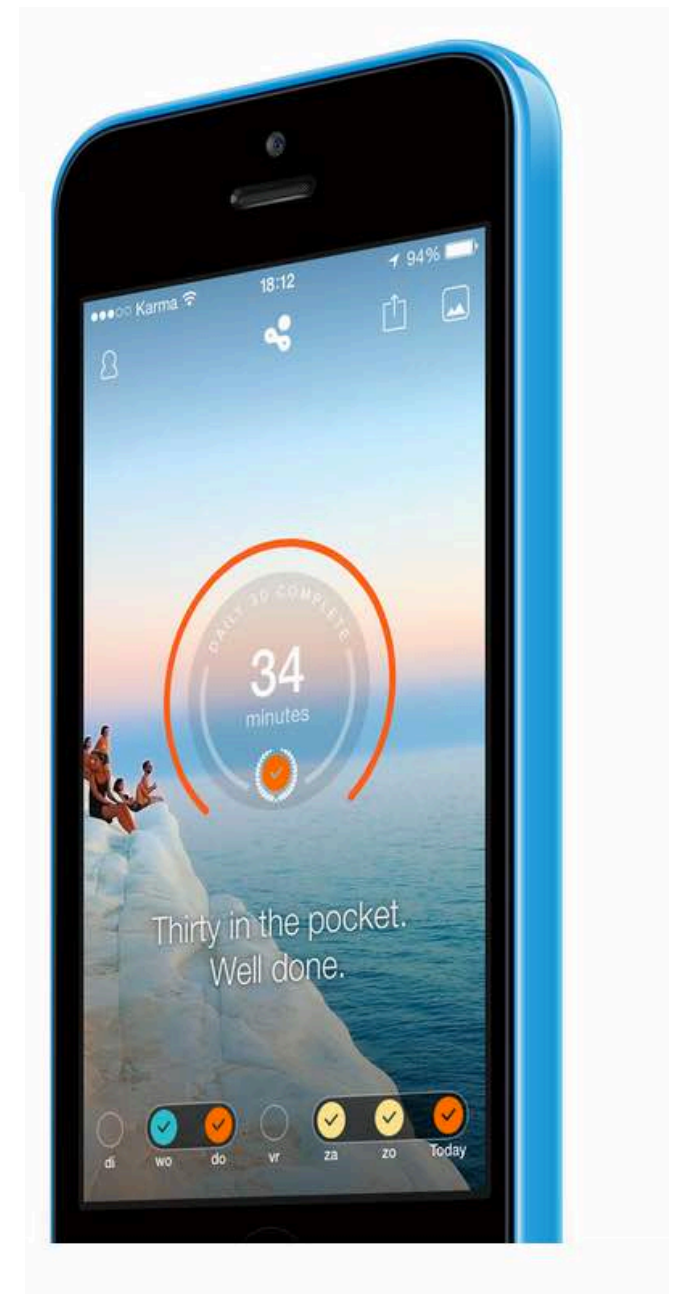
DECEMBER 2016 | CREATED BY THE STREET PLANS COLLABORATIVE, WITH FUNDING FROM THE JOHN S. AND JAMES L. KNIGHT FOUNDATION

$$\begin{array}{c} \text{Activity monitor} \\ + \\ \text{Real time transport data} \\ + \\ \text{Social networking} \\ = \\ \text{Walk-a-Stop} \end{array}$$

Public transport agency sends push notifications to help manage demand (e.g., crowded station).

### *Why not walk a stop?*

Users receive map and reward (points, coffee on route).



## Change Behaviour – Walk-a-Stop (Prototype)



## the love shack bus stop

by Dana Jo

Home

Updates 23

Backers 88

Comments 6

Athens, GA

Public Art

Funded! This project was successfully funded on Jan 3, 2012.

## Update #22

Mar 2 2012

## [love shack bus stop is finished and installed!]

2 comments   Like

{hey there everyone, i have some pictures up on my website that you you can see by [clicking here](#). also, if you did not get to pick up your backer rewards at the opening, i will be mailing them to you on monday as well as the prints for my \$75-100 folks. again, thank you all so very much for helping make the love shack bus stop a reality!}



88

backers

\$3,015

pledged of \$2,500 goal

0

seconds to go



Project by

Dana Jo

Athens, GA

[Contact me](#)

K First created · 2 backed

f Dana Jo Cooley 1120 friends

danajocooley.com

[See full bio](#)

Pledge \$5 or more

14 backers

a postcard art print of the love shack

# Fund local projects – Bus Shelter (Kickstarter)



The logo for BlaBlaCar, featuring the words "Bla Bla Car" in a sans-serif font. "Bla" is green, "Bla" is blue, and "Car" is red. The logo is set against a white rounded rectangular background.

Bla Bla Car

# Trusted ridesharing

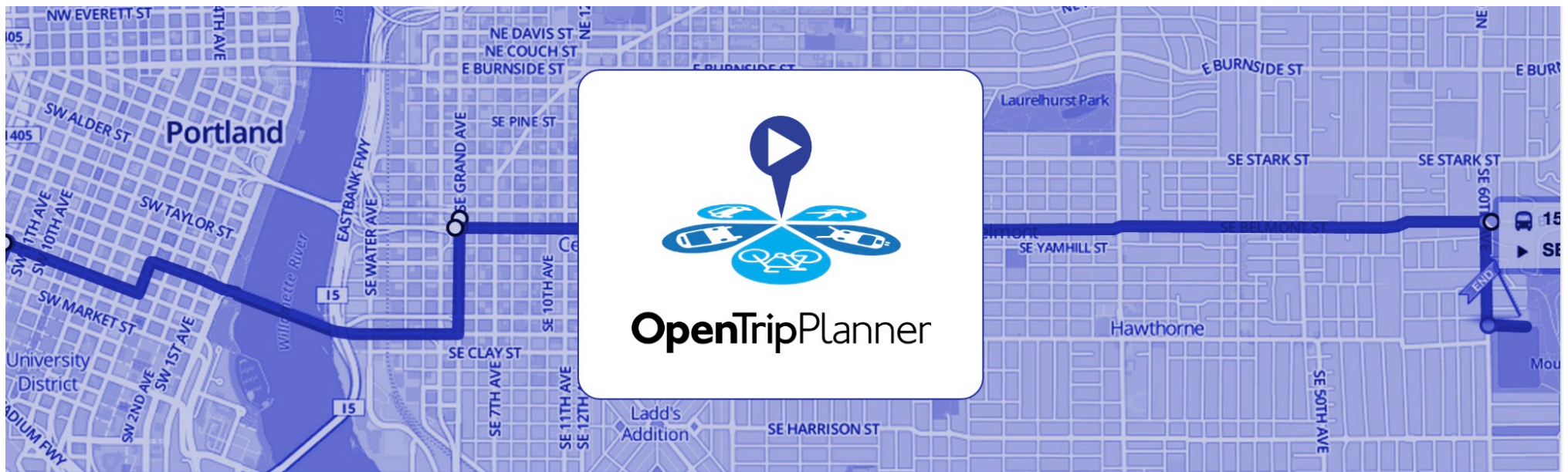
Connecting people who need to travel with drivers who have empty seats

Choose the country for your rideshare

Confirm

**Provide transport service – Rideshare (Bla Bla Car)**





## Multimodal trip planning & analysis

OpenTripPlanner provides a range of passenger information and transportation network analysis features using our infrastructure for finding itineraries combining transit, pedestrian, bike, and car segments.

OpenTripPlanner  **OTP Analyst**

**Create** – Open source software (Open Trip Planner)



## Share: Meals – Casserole (UK)

- *Cooking the meal is as important as receiving it.*
- *Social contact is as important as nutrition.*

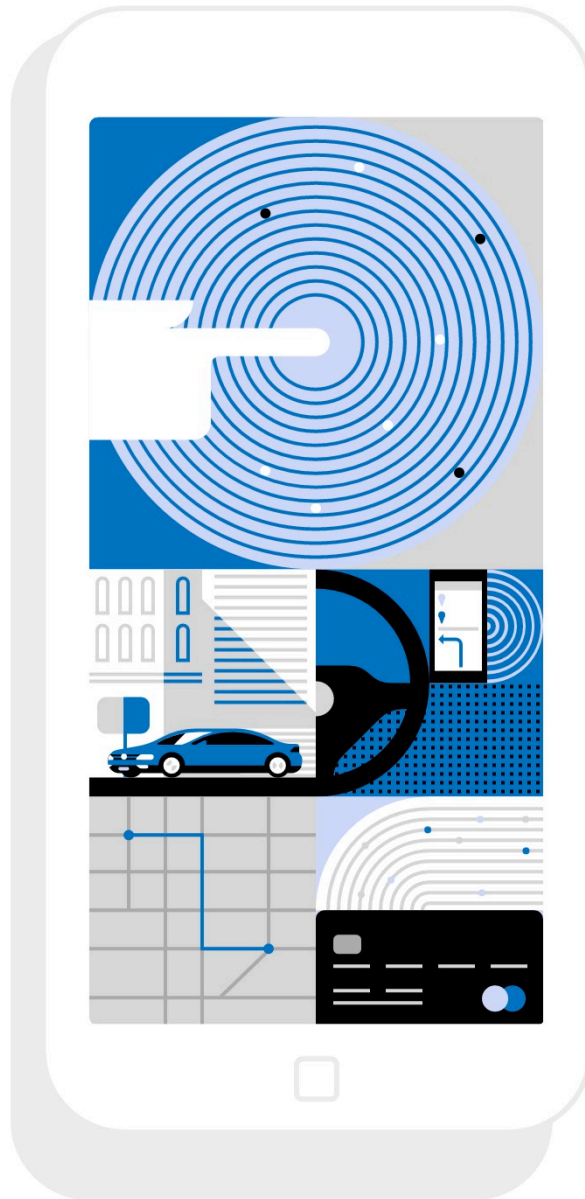
*Intend*

## **Demands are *served***

*Using real-time crowdsourced travel intentions to operate transport services:*

- **Taxi – Uber;**
- **Transit (Route) – Bridj;**
- **Public Transport (Network) – Banedanmark.**





---

## Tap the app, get a ride

Uber is the smartest way to get around.  
One tap and a car comes directly to you.  
Your driver knows exactly where to go.  
And payment is completely cashless.

[MORE REASONS TO RIDE >](#)

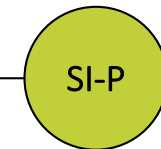
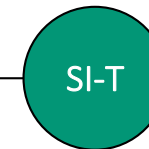
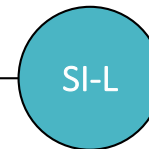
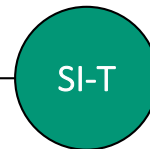
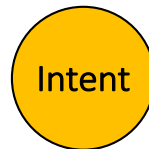
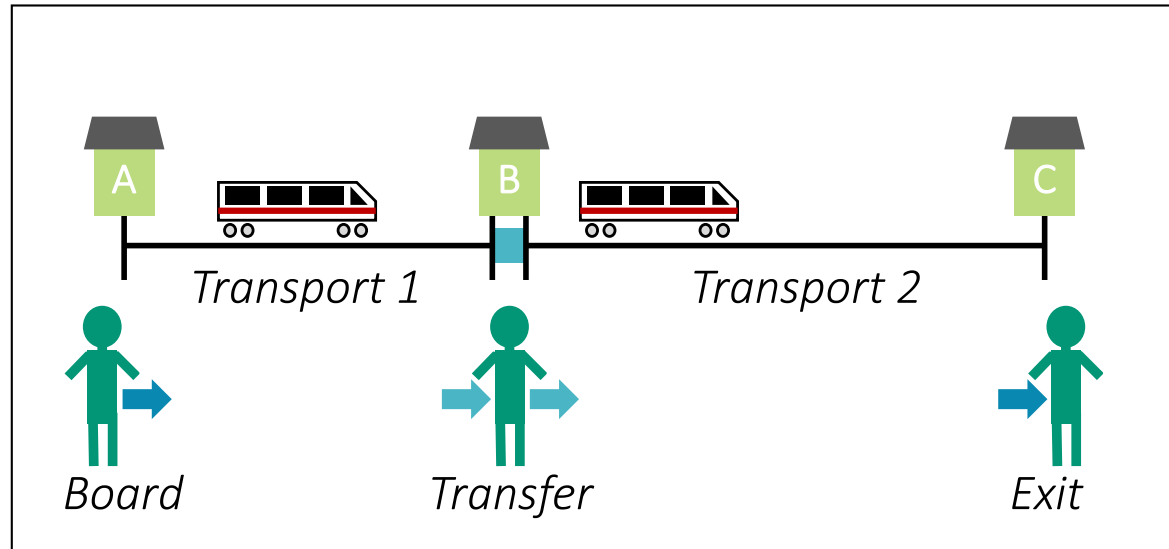
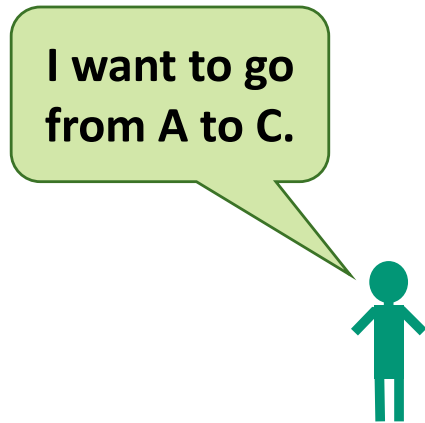
[HOME](#)[ANNOUNCEMENTS](#)[SERVICE AREA](#)[WE'RE HIRING](#)

# CONNECTING THE CITY

Bridj is your everyday transportation system that adapts in real time to where you live work and play.

**Provide “Intentions” – Public Transport (Bridj)**

*How do we operate a public transport system to serve this intent?*



*Service Intentions*

**Convert Intentions → Operations – Bannedanmark**

*Recommendations*



# How Boston's Changing the Way People Experience Transit

And why picking one app is good for commuters everywhere



**Don't reinvent the wheel – Transit App and Boston**



# Boston will use Waze data to measure 'block the box' ticketing push



**Give data to get data – Waze and Boston**



Open beats closed – [opentraffic.io](https://opentraffic.io)

The screenshot displays the Google Maps transit interface. The left sidebar shows the origin 'Westbahnhof, Austria' and destination 'Stephansplatz, 1010 Wien, Austria'. It includes a 'Leave now' button and an 'OPTIONS' link. A disclaimer states: 'These results may be incomplete - not all transit agencies in this area have provided their info.' Below this is a 'Send directions to your phone' button. Three transit routes are listed:

- Walking route:** via Mariahilfer Str., 43 min, 3.4 km. A 'DETAILS' link is provided.
- Transit route 1:** 6:34 PM–7:34 PM, 1 h. The route is S3 → S45 → S50.
- Transit route 2:** 6:34 PM–7:38 PM, 1 h 4 min. The route is S3 → S45 → DEV.

The main map area shows the city of Vienna with various districts labeled. A blue line indicates the walking route from Westbahnhof to Stephansplatz. A red pin marks the starting point at Westbahnhof. A search bar at the top right contains the text 'Sign in'. The bottom right corner features a 'Google' logo and a 'Earth' button.

## Standard beats custom data formats

*What happens when you don't provide data in standard formats?*

*And ...*

# *Crowdsourcing Applications*

*Can help address today's  
most pressing problems.*



*Automation, robots, the end of work?*

*Passion replaces salaries in an age of guaranteed incomes.*

*Crowdsourcing will guide people towards activities they are passionate about.*

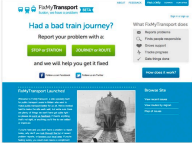
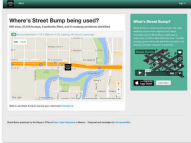


*Alienation, elitism, inequality?*

*Building shared visions creates  
a foundation for community.*

*Crowdsourcing will help create community.*



## Four Types of Crowdsourcing in Transportation

			
<b>Report</b>	<b>Analyse</b>	<b>Collaborate</b>	<b>Act</b>
Report problems.	Collect and analyse data.	Work together on projects.	Support and provide transport.
<a href="#">read more</a>	<a href="#">read more</a>	<a href="#">read more</a>	<a href="#">read more</a>



**Andrew Nash** develops engaging public participation applications and games designed to improve city liveability and transport.

- [Crowdsourced-Transport.com](http://Crowdsourced-Transport.com)
- [Ringstrasse150.com](http://Ringstrasse150.com)
- [AndyNash.com](http://AndyNash.com)