



One.Stop.Transport

Open data and public transportation

Who am I?

- Tech lead & project manager working at IPN
- Project lead for the OST platform
- Open source & open data advocate





The problem

8:00



8:10



8:25



9:05



Work



18:10



18:25



19:00



The problem

- Not enough information in one's hands
 - Regular planning
 - Real-time decision making
- Time inefficiency
- Harmful for the environment



*“There’s this huge problem in
transportation waiting to be solved”*

2009



“What can we do about this?”

2009

A grayscale photograph of a train station platform. On the left, a train is stopped, with its destination sign displaying 'Chatswood'. The train's front features a large circular window and the number 'H 23' is visible below it. Several passengers are standing on the platform, some facing the train. The platform has a curved, arched roof structure. In the background, a digital display shows the time '15:40:43' and an 'EXIT' sign. The text 'The solution' is overlaid in the center in a bold, orange font.

The solution

The solution

- We need to build and foster an open mobility ecosystem
 - Data providers
 - Developers
 - Users
- We need to leverage open data
- We need a technical infrastructure to support all that



“We can’t do this alone”

2009

The project

- 26 Portuguese partners
- 8 sub-projects
 - One of them focused on the OST platform
 - Another one focused on semantic capabilities
 - Six of them represent vertical use cases

The work

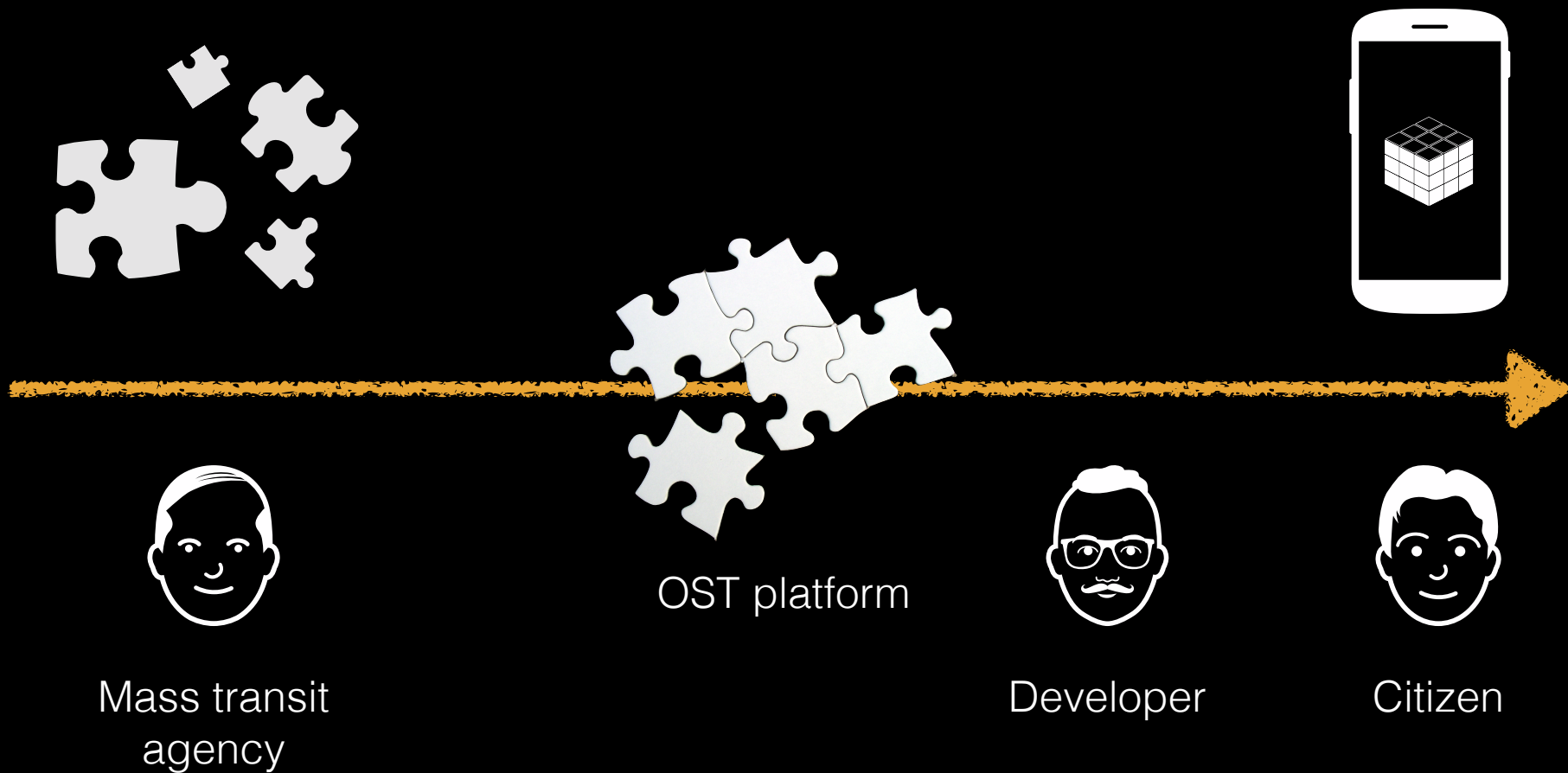




“How can we do this?”

2011

The big picture



The OST platform

- Data standardisation
- Data aggregation
- Data delivery
 - Static
 - Realtime
- Services on top of data
- App marketplace & management



“Ok, this may actually work!”

2012



“We need more data!”

2013 onwards



The benefits

Data providers

- Data standardisation
- Data centralised publication
- Developer marketing
 - New applications at zero cost!

Developers

- Data to build applications *easily*
 - *Easy way to expand to Portugal*
- Integration mechanisms
- Open source bootstrapping code

Users

- New range of applications and services
 - Better choosing
 - Better planning
 - Better decision making



The impact



“Let’s tell people about this!”

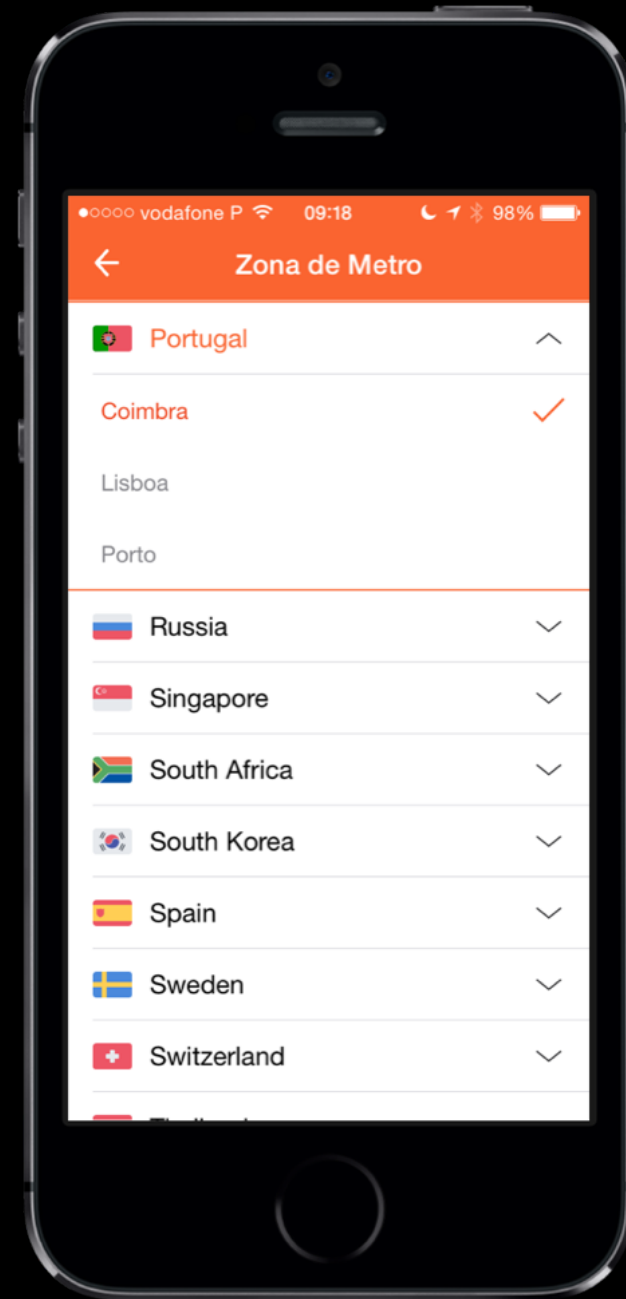
2014

Applications

- Moovit
- OpenTripPlanner
- Mapnificent
- SMTUC Ubique
- CityMapper
- Transit App
- Public Transport
- Rome2Rio
- AllRyder

Moovit

iOS, Android, Windows



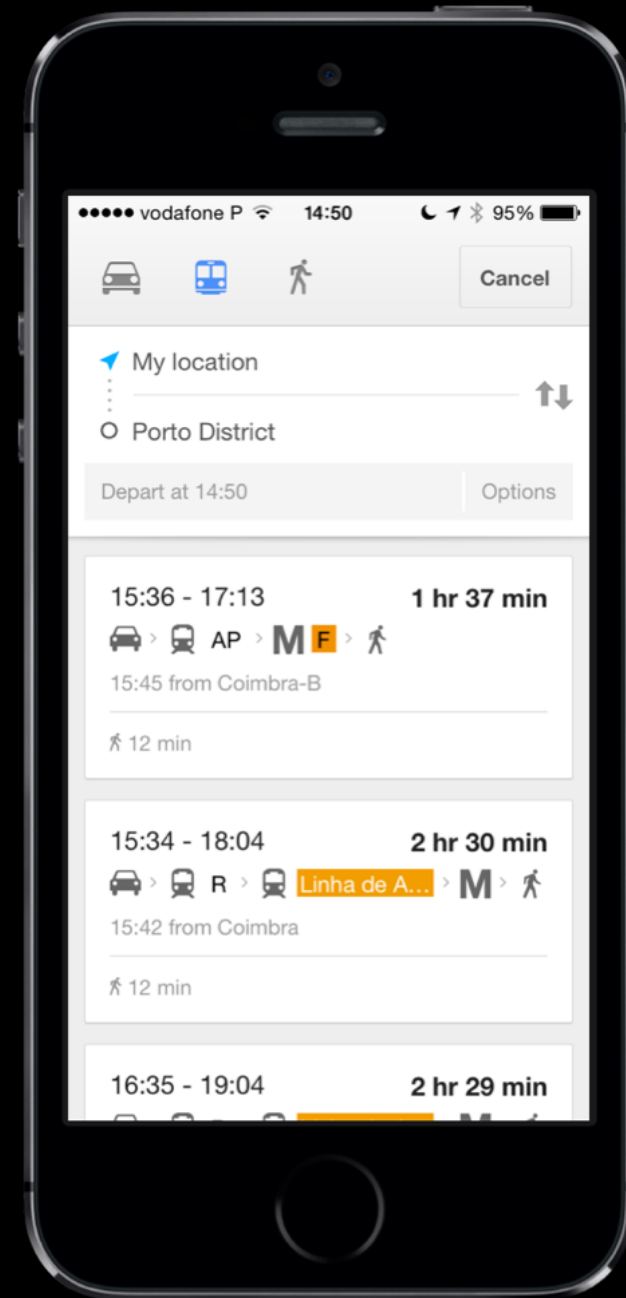
Moovit

iOS, Android, Windows



Google maps

All platforms

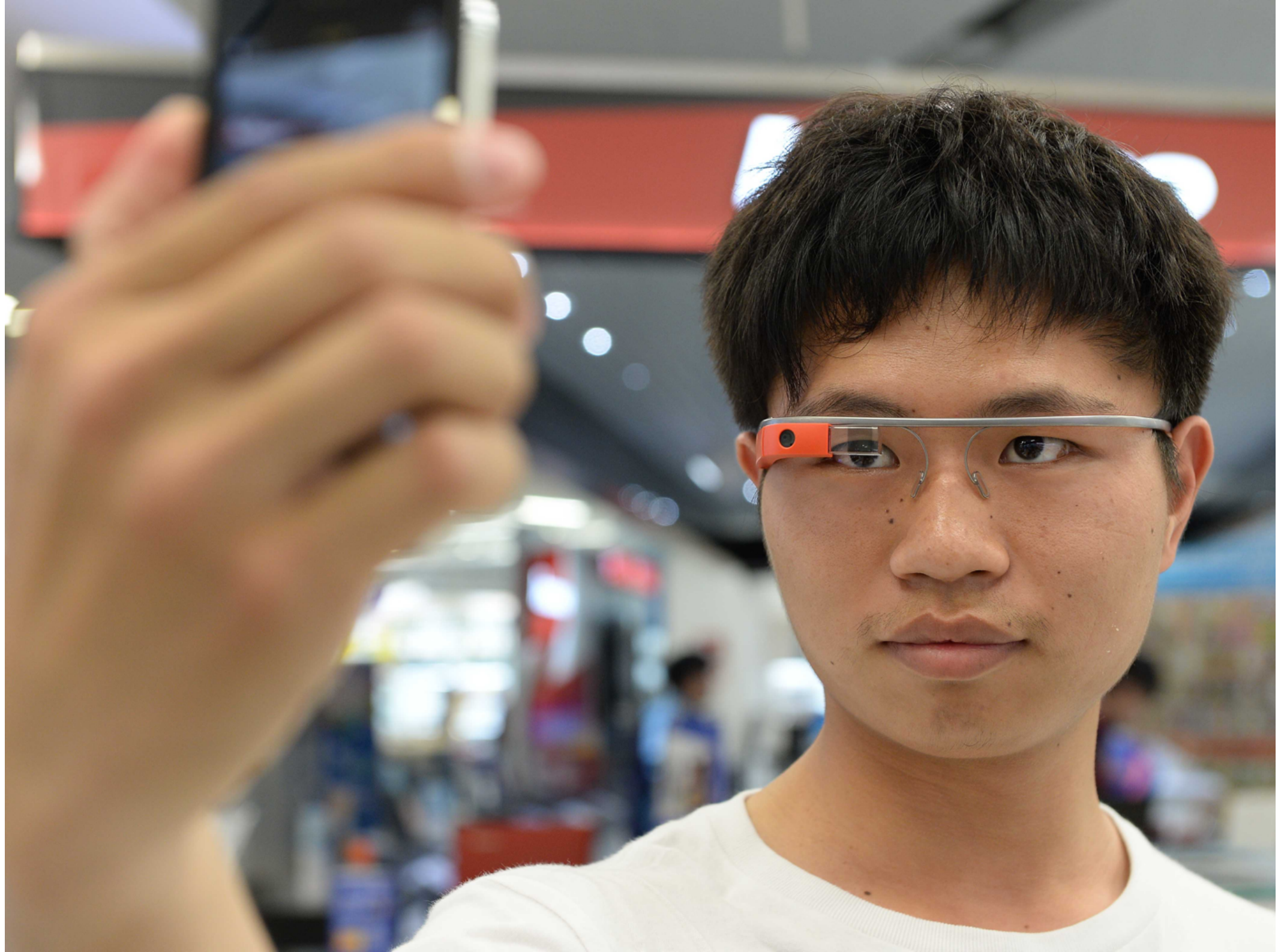


The users

- We haven't got any *real* pictures of happy customers, but we can foretell...







The impact

- We can reach for better mobility by bringing together the key players
 - Developers
 - Transit agencies
 - Users
- Open data is a key enabler for applications to emerge
- We can have better apps by promoting a free data market



*“A small step for technology, a giant
leap for the citizen”*

2016

An aerial, high-angle photograph of a city at night. The image is dominated by numerous tall, modern skyscrapers with illuminated windows, creating a dense urban landscape. In the center, a major highway interchange is visible, with long, bright white light trails from cars moving through the frame, suggesting a long-exposure shot. The roads are filled with vehicles, and the overall scene is a vibrant display of city lights and architectural scale. The text "The future" is superimposed in a bold, orange font across the middle of the image.

The future

What's next?

- Real-time data (the holy grail of transportation)
- Convergence between mobility other domains
 - Intersection with contextual data
 - Network of open data distributed nodes

A network of platforms

- There will be no single platform *to rule them all*
- The future smart city will be built upon a network of platforms
 - Interoperable
 - Context-specific
 - Real-time
 - Cyber-physical

A network of platforms

- Transport data
- Municipality data
- Weather data
- Water data
- Energy data
- Waste management data

Study case

- Lisbon municipality open data is dispersed among heterogeneous systems such as:
 - CKAN (points of interest and events)
 - The OST platform
- IPN has developed connectors to link them together, creating a **network**.

Examples

A black and white photograph of the Gateshead Millennium Bridge at night. The bridge's large, illuminated arch dominates the left side of the frame. In the background, the city of Gateshead is lit up, with several tall buildings and streetlights visible. The lights from the bridge and the city are reflected in the calm water of the River Tyne. In the foreground, a dark metal railing with vertical posts runs along a stone-paved walkway. The text "Thank you." is overlaid in a bold, orange font in the lower right quadrant of the image.

Thank you.