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Innovative Procurement of Traffic Management Systems

On an urban scale

POLIS

2017 ANNUAL POLIS CONFERENCE

6-7 December 2017, Brussels

Innovation in Transport for Sustainable Cities and Regions

Innovative procurement on a national level

- PCP Precommercial Procurement
  - Procuring R&D itself
- PPI Public Procurement of Innovation
  - Large scale launching customer
- IP Innovation Partnership
  - Procuring R&D and large scale deployment of technology

It’s all about scale

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But what if you are a city?

PCP, PPI and IP are designed for large scale projects

Early adopter instead of innovator

Innovation is not a goal in itself.

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Steps for small scale innovative procurement

Create a concept functional specification (what do I want)

Perform a market consultation (who can do this and how?)

Review your concept functional specification

Do **not** focus on complex procurement methods

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2 use cases: city of Rotterdam

- Radar for adaptive congestion management (approx. 1 mln).
- Innovative use of web cams (approx. 200K)

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Use Case: Radar (1)

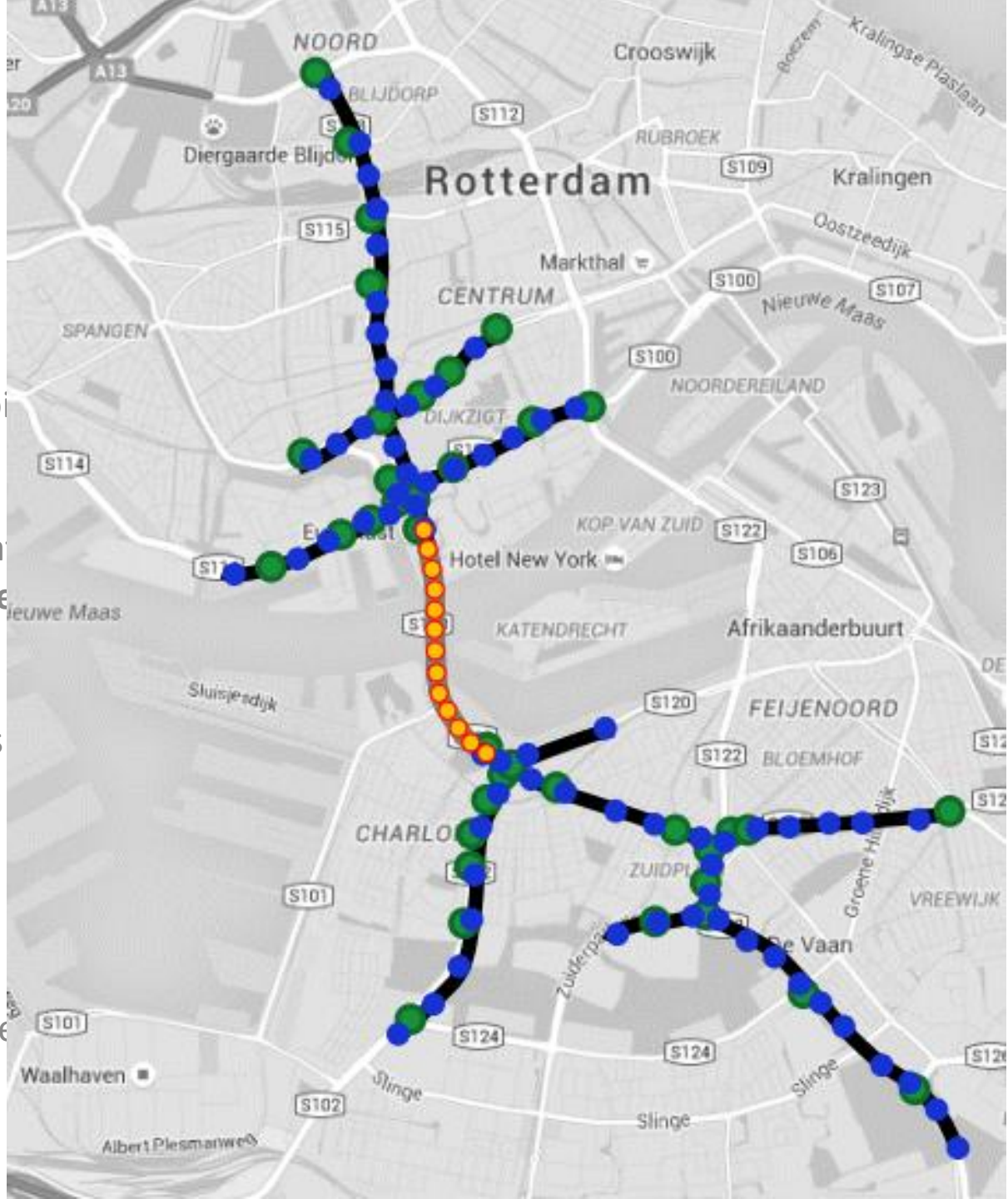
The **Maastunnel** in **Rotterdam**, Netherlands, will be undergoi
years.

One of the new features to be installed is a safety system tha
Technolution is developing this **Adaptive Congestion Manage**

This is necessary because of the new longitudinal ventilation
blown in the direction of travel at a speed of 15 km/h. This is
to be maintained at all times.

Radars with a range of over 150 meters are used to measure
tunnel.

You can measure speed, number of vehicles and measure cue



Use Case: Radar (2)

- Technology proven on a smaller scale in Amsterdam
- A limited number of players, 2 types:
  - Installation specialists
  - System integrators
- It became clear that for the radar hardware there would be only one viable subcontractor
- Functional specification lead to a service philosophy: **we want data instead of hardware**

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Market signals

Service model: too many risks
Scale of the project: never shown before

So:
We abandoned procuring radar as a data service
Part of the risk was taken back to the city of Rotterdam:

- Energy supply
- Communication
- Etc.

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Results

1. Successful procurement
2. Two submissions
3. The company that was having the most trouble with the “service model” still did not show up
4. During the execution of the project, communication issues arose, responsibility for data continuity hard to pinpoint

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Use Case: WebCams for Traffic

ROTTERDAM ONDERWEG

Reisinformatie Slimmer reizen Bereikbaarheidsjournaal Omleidingen Contact

Droogleever Fortuijnplein
Bekijk het camerabeeld ›

's-Gravendijkwal-Rochussenstraat
Bekijk het camerabeeld ›

's-Gravendijkwal-1e Middellandstraat
Bekijk het camerabeeld ›

Westzeedijk-Pieter de Hoochweg
Bekijk het camerabeeld ›

Use Case: WebCams for Traffic

- Existing technology but a new application
- Proof of concept was done by a (very) small enterprise
- Procurement was necessary after first camera’s

Use Case: WebCams for Traffic

- Hard to keep really small businesses on board
- Special need to “explain” creativity needed to larger enterprises

Creativity was needed to get long distance camera overviews

Use of appartment buildings and offices.

Technology is not the only challenge!

Results

- Successful procurement
- System is running successfully
- It made the national news
- Failure to keep small businesses on board

Overall lessons learned

- Innovative procurement of innovative traffic systems is possible
- Trying get and keep relevant parties on board is the hardest thing to do
- Market consultations do help, but they won’t tell you all
- Try to predict size (SME) and shape of contractors
- Try to focus on the end goal

Thank you!

Thanks!

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