

# CitySDK

*Development toolkit for the  
city services*



**City Service Development Kit**




Co-funded by the  
European Union



# What is SDK?

SDK = Service Development Kit



Download  
the free tools  
GET STARTED NOW



Join to  
submit your  
apps & games  
WINDOWS PHONE & XBOX 360



Attend a  
Windows Phone  
Camp!



## Get the Windows Phone SDK 7.1 RTW Now!

Now's the time to create or update  
apps for Windows Phone 7.5



12:38

2

# SDK for Pan-European City

- Service development toolkit for the cities:
  - Open and interoperable digital service interfaces
  - Processes, guidelines and usability standards.
- Sharing, re-using and transferring Smart city solutions across cities and borders
- Not inventing APIs from the scratch, but mapping the global best-practices and implementing / developing them further (e.g. Open311)



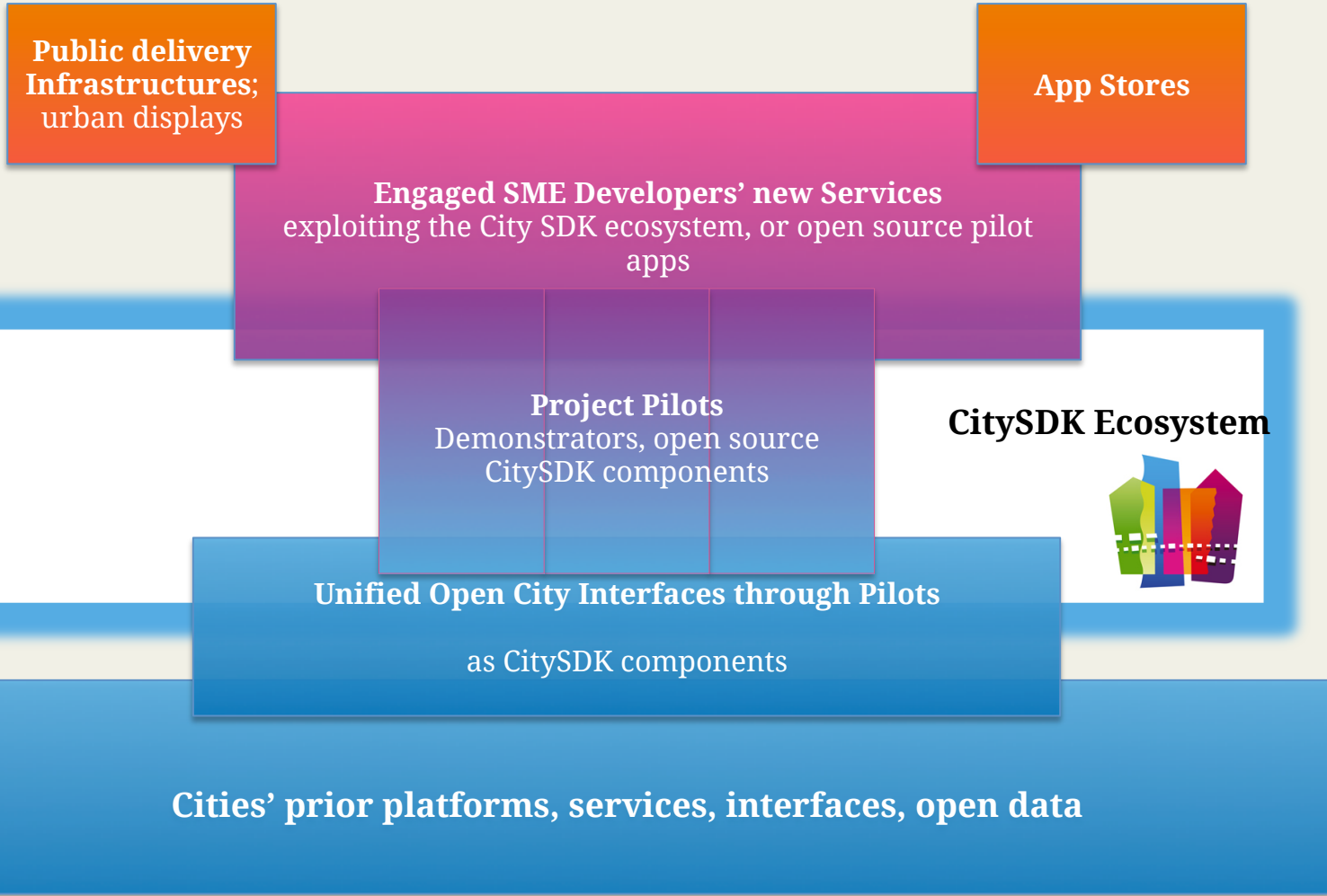
CitySDK



Co-funded by the  
European Union



# CitySDK Ecosystem



**CitySDK**



Co-funded by the European Union

# Why CitySDK?

Diversity – services and uses

Flexibility – technology and concepts

Scalability – from small to big & back



CitySDK



Co-funded by the  
European Union



# CitySDK Developers

- Created and developed with and for the developers
- Lightweight, modular
- On-going process, not top down and outdated

## For

- Cities' in-house service developers
- Commercial service developers
  - SMEs
  - Large corporations
- 3rd sector & hacktivists
- Research organisations



CitySDK



Co-funded by the  
European Union

# CitySDK Partnership

## Cities and city regions:

- Amsterdam
- Barcelona
- Helsinki
- Istanbul
- Lamia
- Lisbon
- Manchester
- Rome

## Private companies

- Alfamicro
- Gnosis Computers
- ISA – Intelligent Sensing Anywhere
- Lynx
- Sanoma
- TAGES

## Development and expert organizations

- Forum Virium Helsinki
- FutureEverything
- Waag Society

## Network organizations

- European Network of Living Labs

## Universities and research institutes

- University of Tilburg
- ESADE
- CASPUR
- Instituto Superior Técnico
- Amsterdam University of Applied Sciences



CitySDK



Co-funded by the  
European Union

Public delivery  
Infrastructures;  
urban displays

App Stores

Engaged SME Developers' new Services  
exploiting the City SDK ecosystem, or open source pilot apps

## CitySDK Pilots

Smart  
Participation

Open311

Smart  
Mobility

Personal Travel  
Assistant

Smart  
Tourism

Personal Tour  
Guide

CitySDK Ecosystem



Unified Open City Interfaces through Pilots

as CitySDK components

Cities' prior platforms, services, interfaces, open data



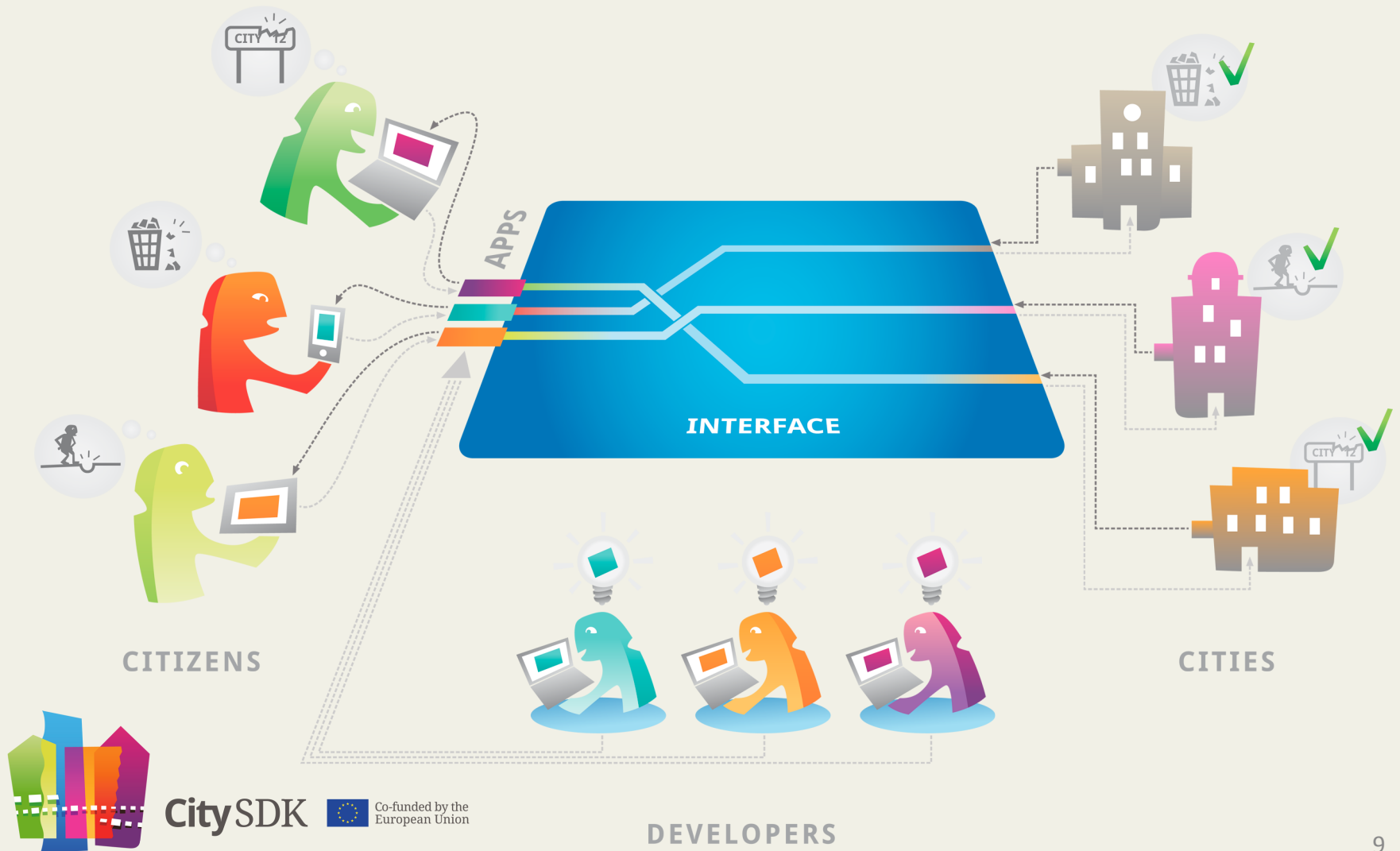
CitySDK



Co-funded by the  
European Union



# Smart Participation



# Smart Participation

- Bringing the City's issue reporting and feedback channels closer to the residents
- Providing cities with more accurate feedback and avoiding unnecessary feedback
- Making development of issue reporting and feedback channels easier
- Inspired by Open311 and FixMyStreet

The logo for Open311, featuring the text "Open311" in a bold, orange, sans-serif font. The text is set against a white background with a subtle, light gray grid pattern.The logo for FixMyStreet, featuring a white wrench icon inside a white circle on a black background. To the right of the icon, the text "FixMyStreet" is written in a white, sans-serif font, with "Fix" in yellow and "MyStreet" in white.

City Service Development Kit



# Reasons for choosing Open311

- Open311 is the most widely used de-facto standard in this area
  - Supported by 35 cities in US and 1 in Europe (Bonn)
- Open311 mostly fulfills CitySDK requirements, and have specified some additions
- There is an existing community where knowledge and information can be shared

## **Benefits of open web API interface:**

- Different apps and services can be connected to city' s feedback system
- More choice for citizens to participate, developers and city to collaborate
- Easy to manage feedback handling process and control access
- Possibility to automate response and handling of issue reports



# Smart Participation – Lead Pilot in Helsinki

The screenshot shows the 'Oma Kaupunki' web portal. At the top, there's a navigation bar with 'HS.fi' and 'Oma KAUPUNKI PÄÄKAUPUNKISEUTU'. Below that, a banner reads 'Lähetä kuva - parhaat palkitaan!' (Send a photo - the best are rewarded!). The main content area features a section titled 'PITÄISKÖ FIKSATA' (Should we fix it?) with a sub-heading 'Monttu tiessä? Leikkipuiston keinut rikottu?' (Is the road uneven? Playground swings broken?). A map of the Helsinki region is visible, with red markers indicating reported issues. A sidebar on the right contains a 'Työn alla juuri nyt!' (Work in progress now!) section with links to 'Kevään 2012 katusuunnitelma' and 'Lilju puustokummeihin!'.

When you spot an issue; fallen street sign

**Do:**

1. Report the issue via:
    - a. Sanoma Publishers' web portal or HTML-app <http://metro.fi/fiksaus/>
- Direct issue reporting to the right department within the city

**Don't**

spend time looking through the City's official portal to find the official form for reporting such an issue.



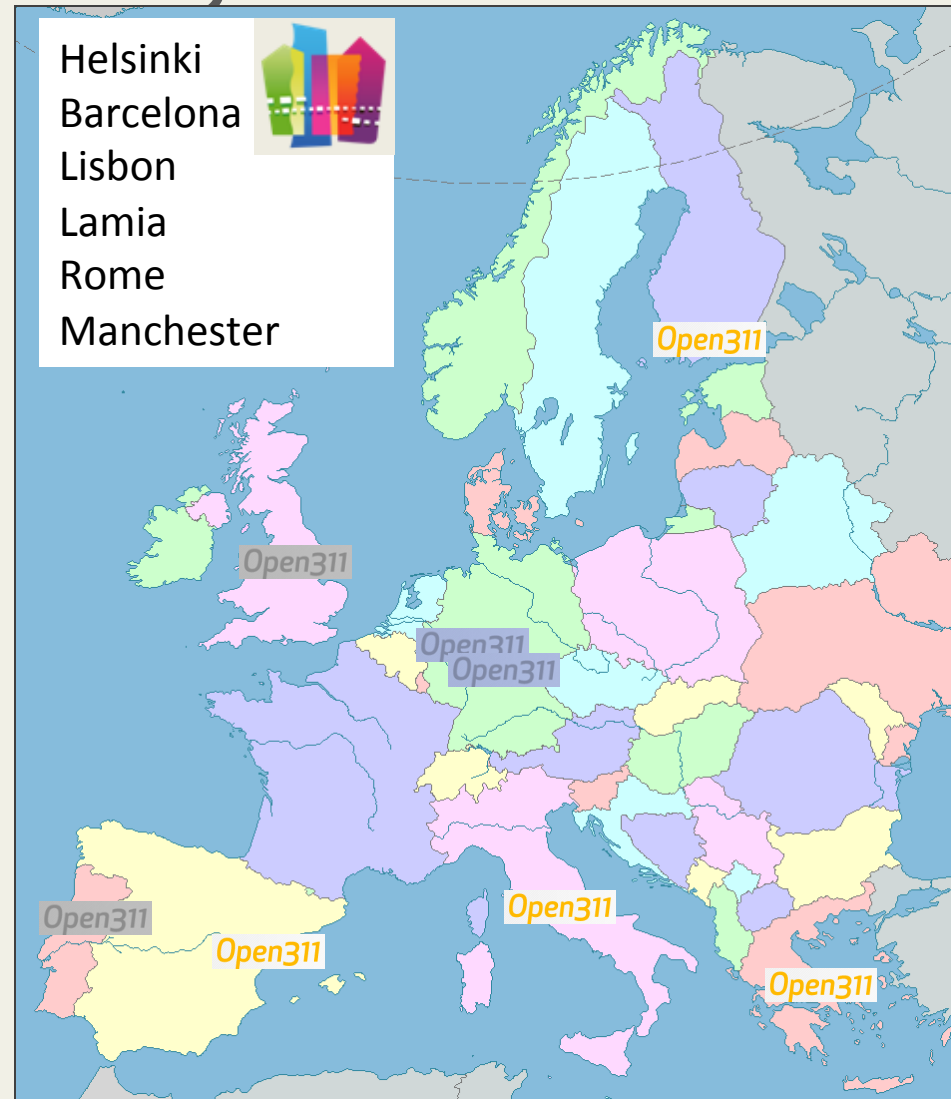
# Smart Participation (Open311) API Interoperability

Additional Open311  
proceedings outside the  
CitySDK project:

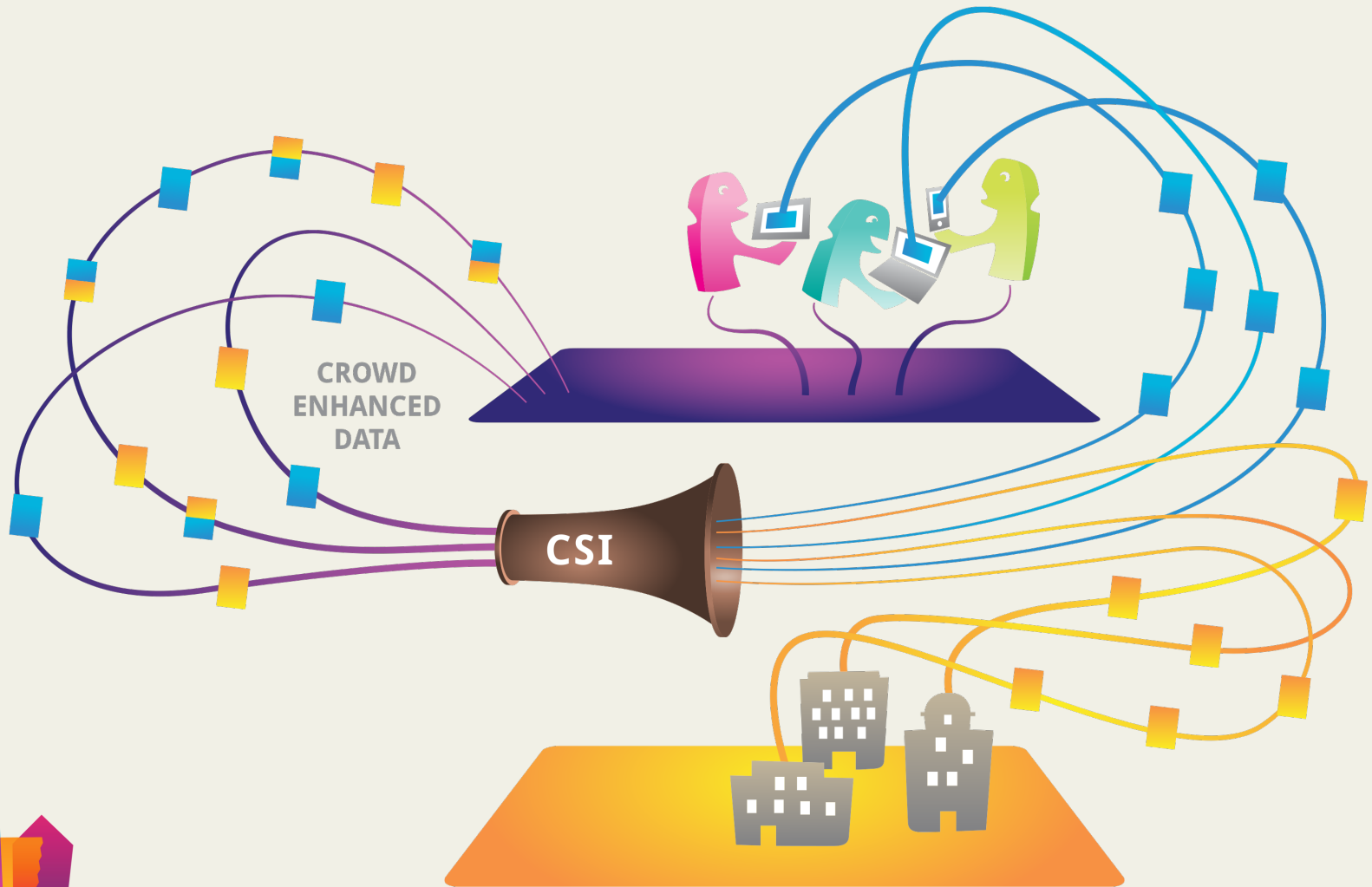
- Bonn, Germany
- GovUnited (NL) and,  
• FixMyStreet (UK) offer  
the API for multiple  
cities.
- +35 cities in United  
States



City Service Development Kit



# Smart Mobility



CitySDK



Co-funded by the  
European Union

# Smart Mobility – Lead Pilot in Amsterdam

## *Cross-domain API*

- **Practical:** Get open data to work fast: offers links to Data/API's from WP Smart Participation, Smart Tourism.
- **International:** Access data from cities all over Europe.
- **Linked Open Data:** Make connections faster, get more insight for your organization and greater value of your data.
- **User Friendly:** Attractive, unambiguous and uniform access for developers and third parties.
- **Quality:** Data linked directly to major reference databases as OpenStreetMap and Cadastre.
- **Real-time:** Publish data with refresh rates from minutes to years.
- **Efficient:** Links to relevant APIs avoid unnecessary duplication of data.
- **Participation:** Link your data to and enrich them with data from the crowd, organizations and companies.
- **Additional services:** Search, map viewer, linking tools, CMS, visualizations and much more.
- **Innovative:** Build for the 'Internet of Things', read / write city, semantic web and Linked Open Services



CitySDK



Co-funded by the  
European Union



# Smart Mobility

- Pilot app based on **real-time traffic data** combined from **multiple sources** in Social Travel App
- Several **cities' backend systems get unified**, and a cluster of SME developers are working on **value-added services for Smart Mobility**
- **Endpoints** live in Amsterdam, Istanbul, Lamia
- Numerous **new datasets** in all cities
- **Social Media**: lots of [sharing](#) of the visualizations
- **Business Case**: Specific interest and commitment in further development from SME's and Councils in Utrecht, Eindhoven, Rotterdam, Antwerp, Tallinn, Birmingham.





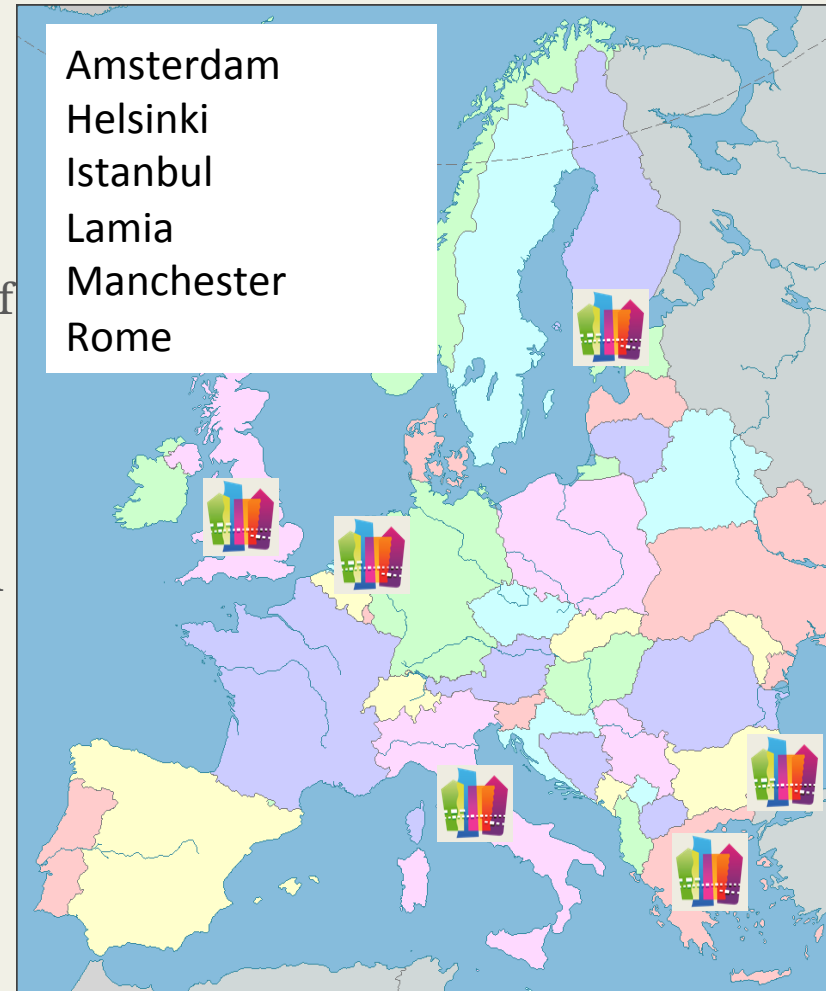
# Smart Mobility API interoperability

## Extensions beyond the project:

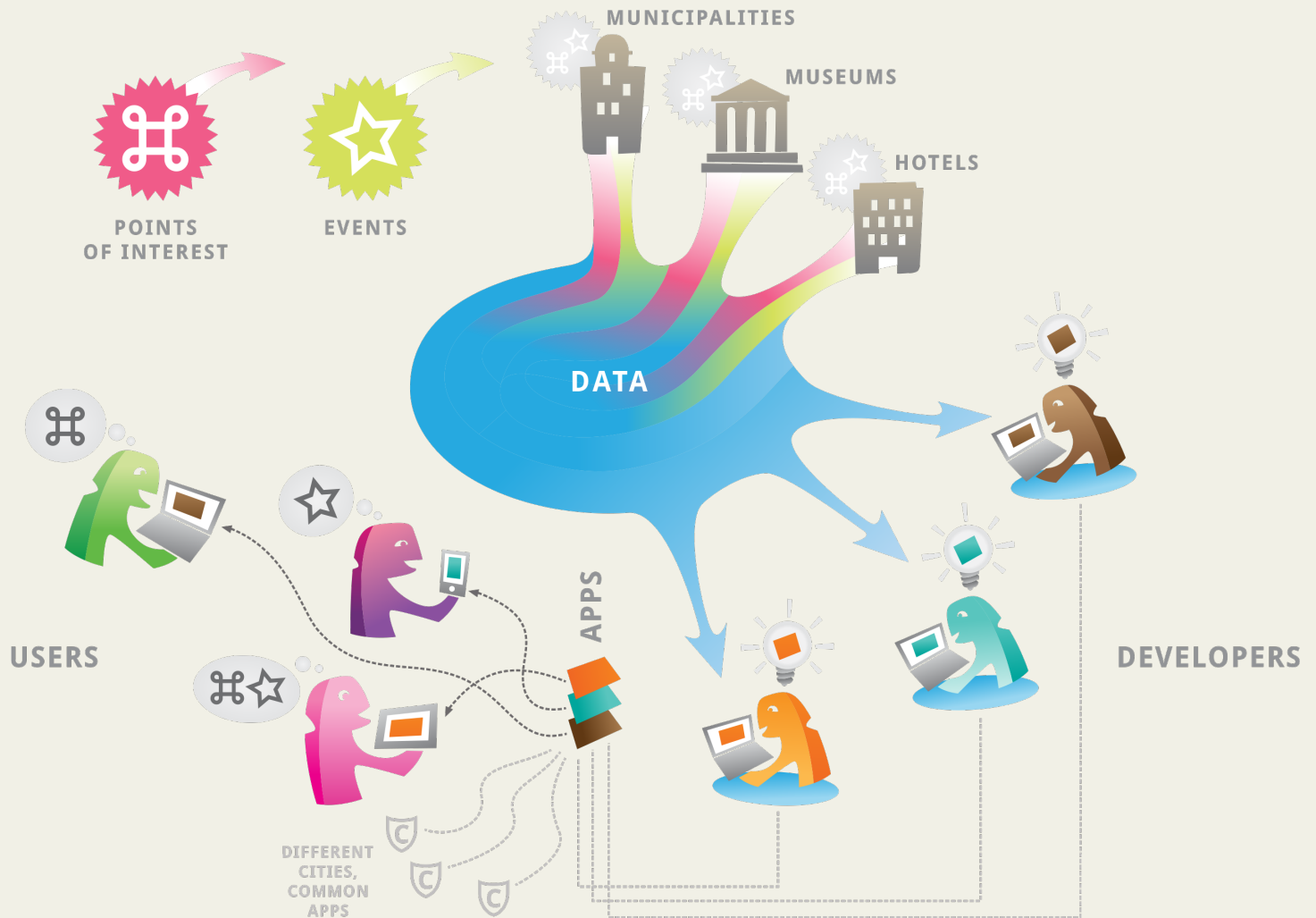
- API implemented in Tampere (FI)
- Additional apps in development with Utrecht and Amsterdam Fire Dept.
- Paper (forthcoming) on the challenges when designing and computing real-time relevance of open data for end users.
- Data visualization based on available (live) mobility and other data European cities: [OpenDataGlobe](#)
- Map of all buildings in The Netherlands shaded according to year of construction: [Buildings](#)
- Web app Public Transport departure times in your immediate vicinity: [Now](#)
- A demonstration of queries and results in the CitySDK mobility API: [Map Viewer](#)



CitySDK



# Smart Tourism



CitySDK

Co-funded by the  
European Union

# Smart Tourism – Lead Pilot in Lisbon



Unifying access to **location and time-based tourism-related data**, enabling **subsequent service generation**. Geo-referenced information on **Points of Interest, Events and Itineraries** with *semantic relations, multimedia content and different identification methods* (e.g. RFID, NFC)

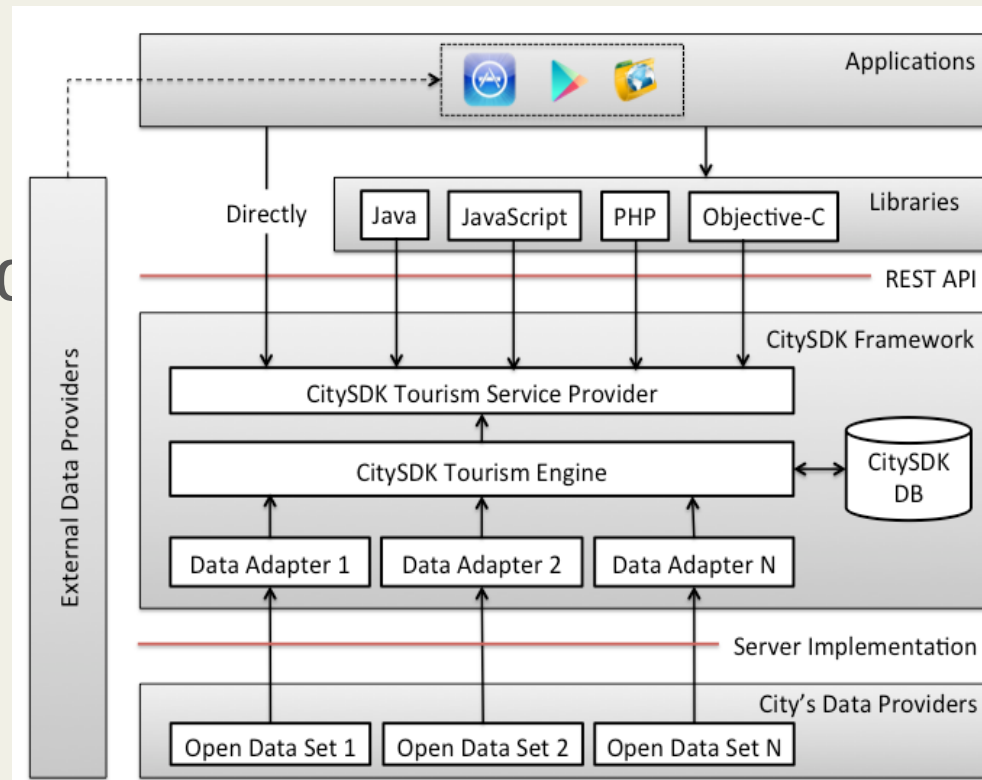
Data representation based on W3C POI WG working draft.



# Smart Tourism

→ Final API to access Points of Interest (POI), Routes and Events that once deployed allows effortless transfer of applications among the cities using CitySDK

→ Utilizes the partner cities' existing Linked open data resources



# Smart Tourism API interoperability

- Concept of delegation of responsibility allows detailed data to be provided by specialized entities and applications to migrate seamlessly across cities providing API
- Early applications include Personal Travel Guide, augmented reality POI finder, event calendar web widget and Event/POI map web widget.

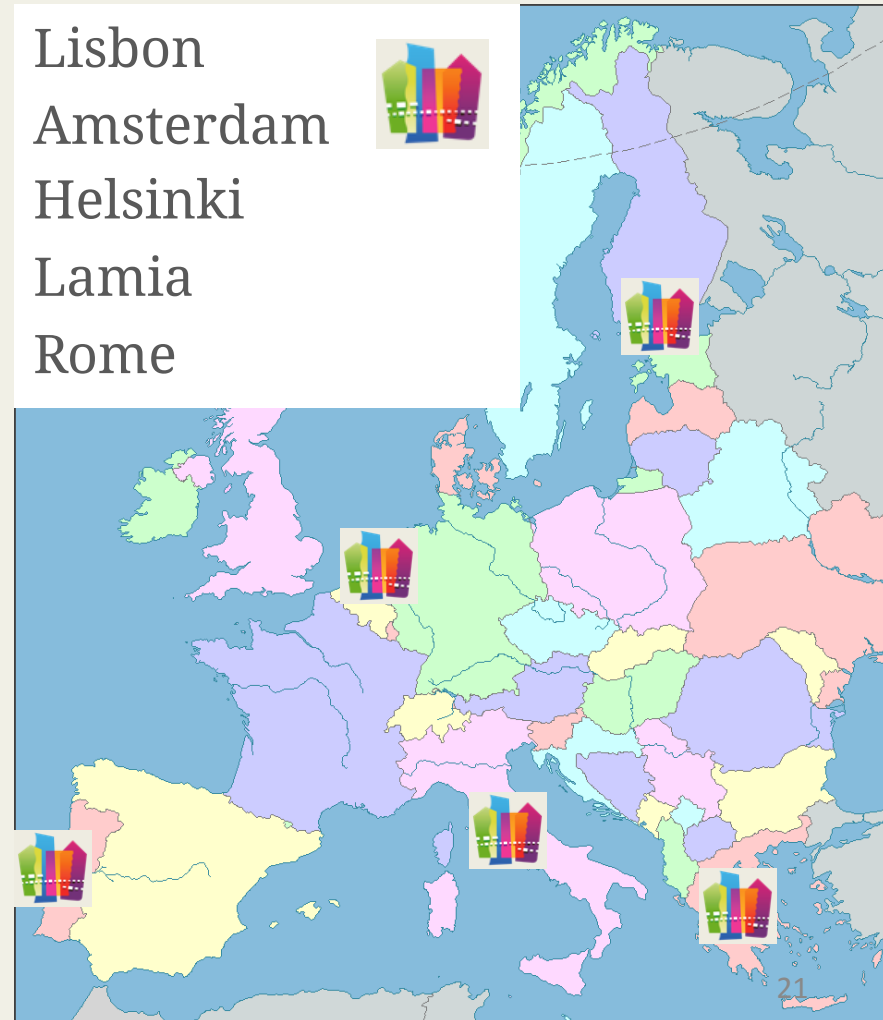


City Service Development Kit



Co-funded by the European Union

Lisbon  
Amsterdam  
Helsinki  
Lamia  
Rome



# Replication Pilots



2012 Preparation stage

01/2013 Lead Pilots

06/2013 Replication Pilots

# Economist 27.10.2012



The Economist

World politics Business & finance Economics Science & technology Culture

This site uses cookies. By continuing to browse the site you are agreeing to our use of cookies. Review

Special report: Technology and geography

**Urban life**

## Open-air computers

Cities are turning into vast data factories

Oct 27th 2012 | From the print edition



But quite a lot of things to make city life better can be done inexpensively by residents themselves. Many governments and cities are encouraging this by making public data available. The European Union

is sponsoring a project called [CitySDK](#), involving eight cities from Manchester to Istanbul, to give developers data and tools to create digital urban services. One pilot, in Helsinki, is meant to make it easier for citizens to report problems. Another, in Amsterdam, will use real-time traffic data to allow people to find the best way around town and avoid traffic jams. A third, in Lisbon, will guide tourists.

**One project tracked 3,000 bits of rubbish from Seattle. Information like this may make people think about what they throw away**



City Service Development Kit



Co-funded by the European Union

# CitySDK Factsheet

Co-funding: CIP ICT-PSP  
Total budget: 6,8 MEUR  
EU-contribution: 3,4 MEUR  
Partners: 23 from 9 countries  
Duration: 01/2012-06/2014

Coordinator: Forum Virium Helsinki  
Marja Mattila  
+358 40 7440067  
[marja.mattila@forumvirium.fi](mailto:marja.mattila@forumvirium.fi)

Comms: Manchester City Council  
Adrian Slatcher  
[A.Slatcher@manchesterdda.com](mailto:A.Slatcher@manchesterdda.com)

## Smart Participation:

Hanna Niemi-Hugaerts, Forum Virium  
[hanna.niemi-hugaerts@forumvirium.fi](mailto:hanna.niemi-hugaerts@forumvirium.fi)

Jaakko Rajaniemi, City of Helsinki  
[jaakko.rajaniemi@hel.fi](mailto:jaakko.rajaniemi@hel.fi)

## Smart Mobility:

Job Spierings, Waag Society  
[job@waag.org](mailto:job@waag.org)

## Smart Tourism:

Nuno Xavier, Lisbon Municipality  
[nuno.xavier@cm-lisboa.pt](mailto:nuno.xavier@cm-lisboa.pt)



CitySDK

