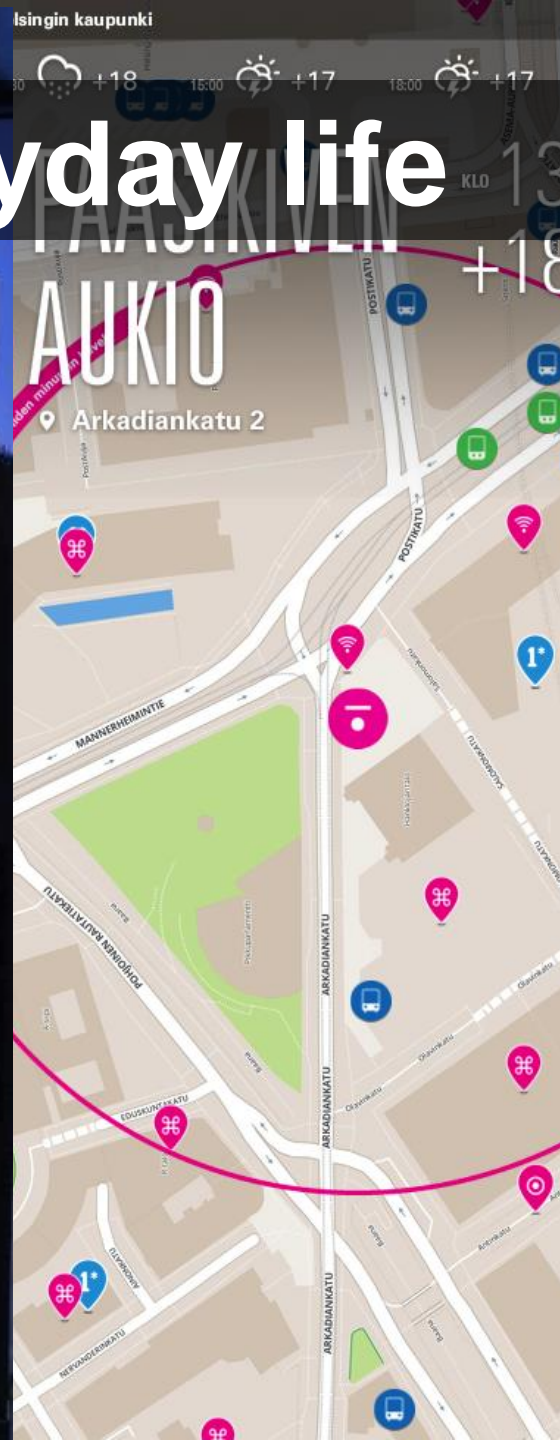


FORUM VIRIUM HELSINKI

Co-creating urban
innovations with the
urban community



user interfaces to everyday life



new forms of urbanism





Find a place to stay.

Rent from people in over 34,000 cities and 192 countries

Where do you want to go?

Check in



Check out



1 Guest



Search

over 34,000 cities and 192 countries.

critical mass & critical speed

Neighborhood Guides

Not sure where to stay? We've created neighborhood guides for cities all around the world.



Find Patients Just Like You »

Do you have a life-changing condition?
Learn from the real-world experiences
of other patients like you.

Join Now! (It's free!)

CURRENT DISEASE COMMUNITIES

Prevalent Diseases

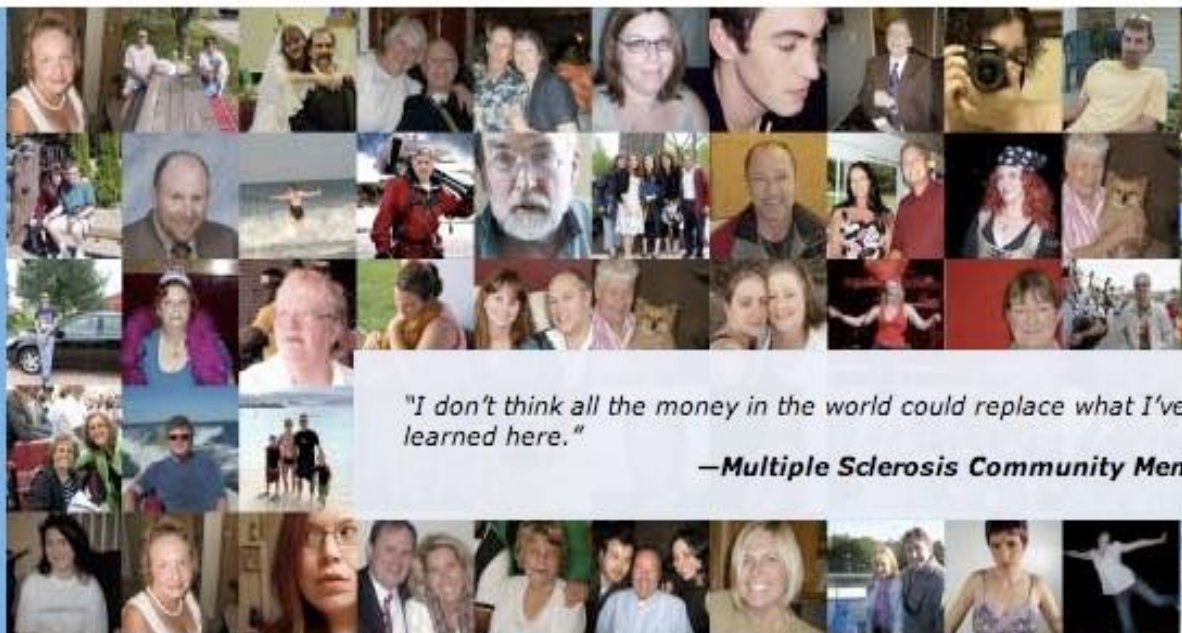
ALS / MND

Anxiety

Bipolar

Fibromyalgia

HIV/AIDS



See how PatientsLikeMe can help you **take control of your health:**



[Share your health profile »](#)

Answer simple questions to create a

[Find patients like you »](#)

Search by gender, age,

[Learn from](#)

Learn from real

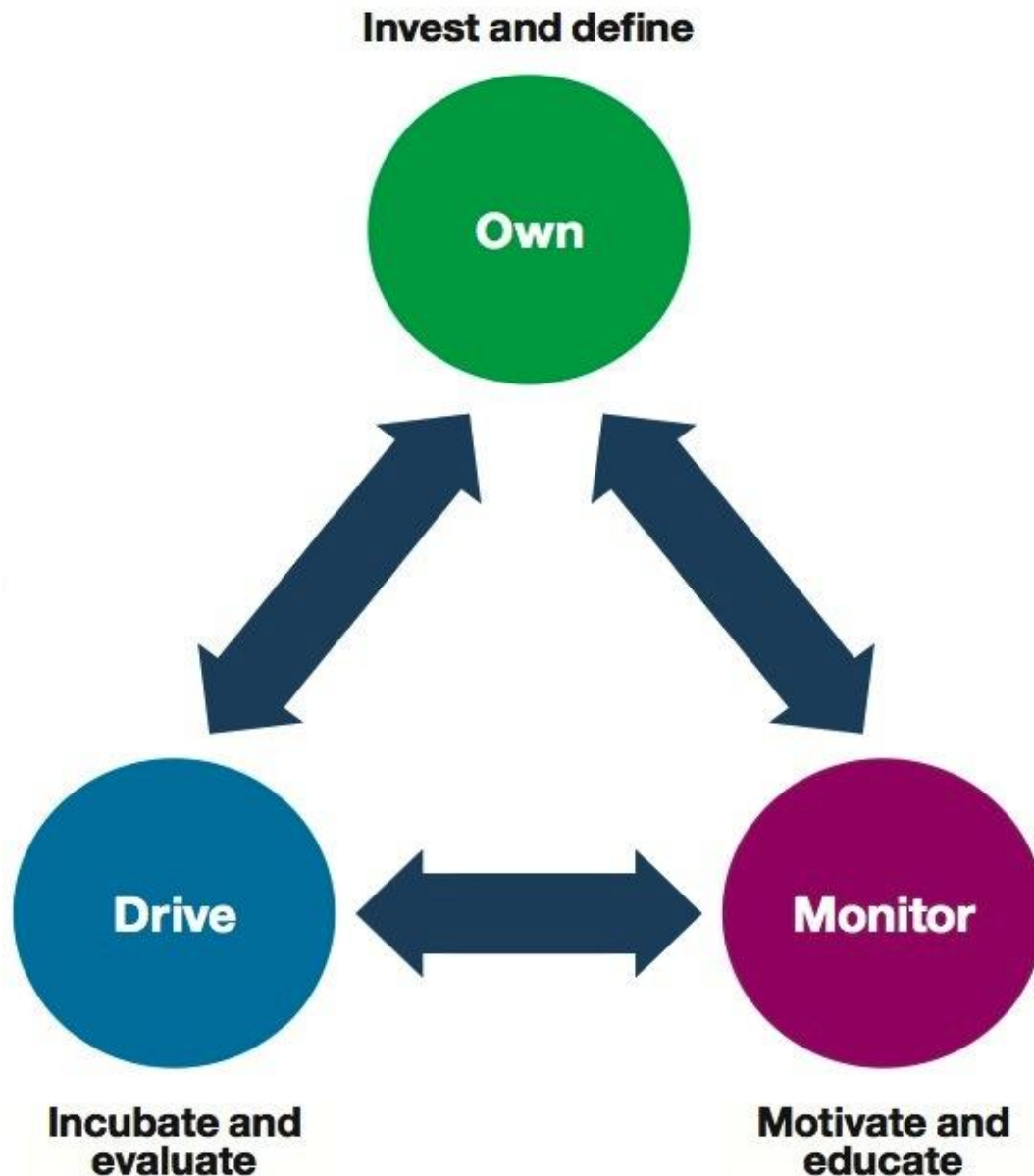
service platforms for everything



communities as partners



cities as enablers



HEL
DEV
dev.hel.fi



Helsinki Loves Developers

Welcome to the refurbished Helsinki Developers' Portal! The site is developed and operated by the City's [Open Software Development team](#).

You can find information about our [projects](#) and [APIs](#). All the code we develop is fully open source, and our UIs are built on top of the same APIs that are available for everyone to use.

Any questions or comments? Want to share your love? Feel free to join us for a chat in our [Gitter chat room](#).

COMMIT WATCH



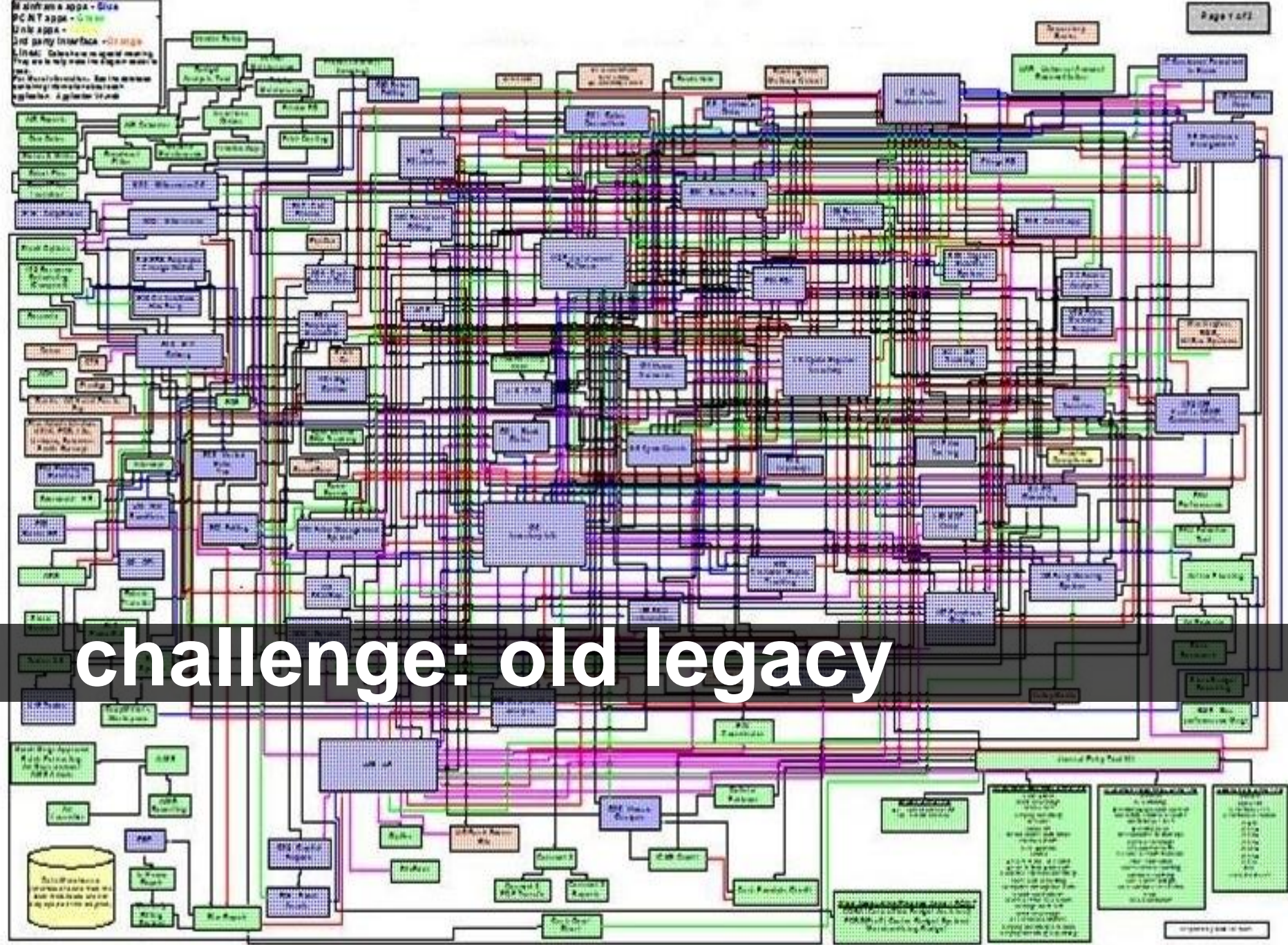
an hour ago

akx created comment on pull request #102 at City

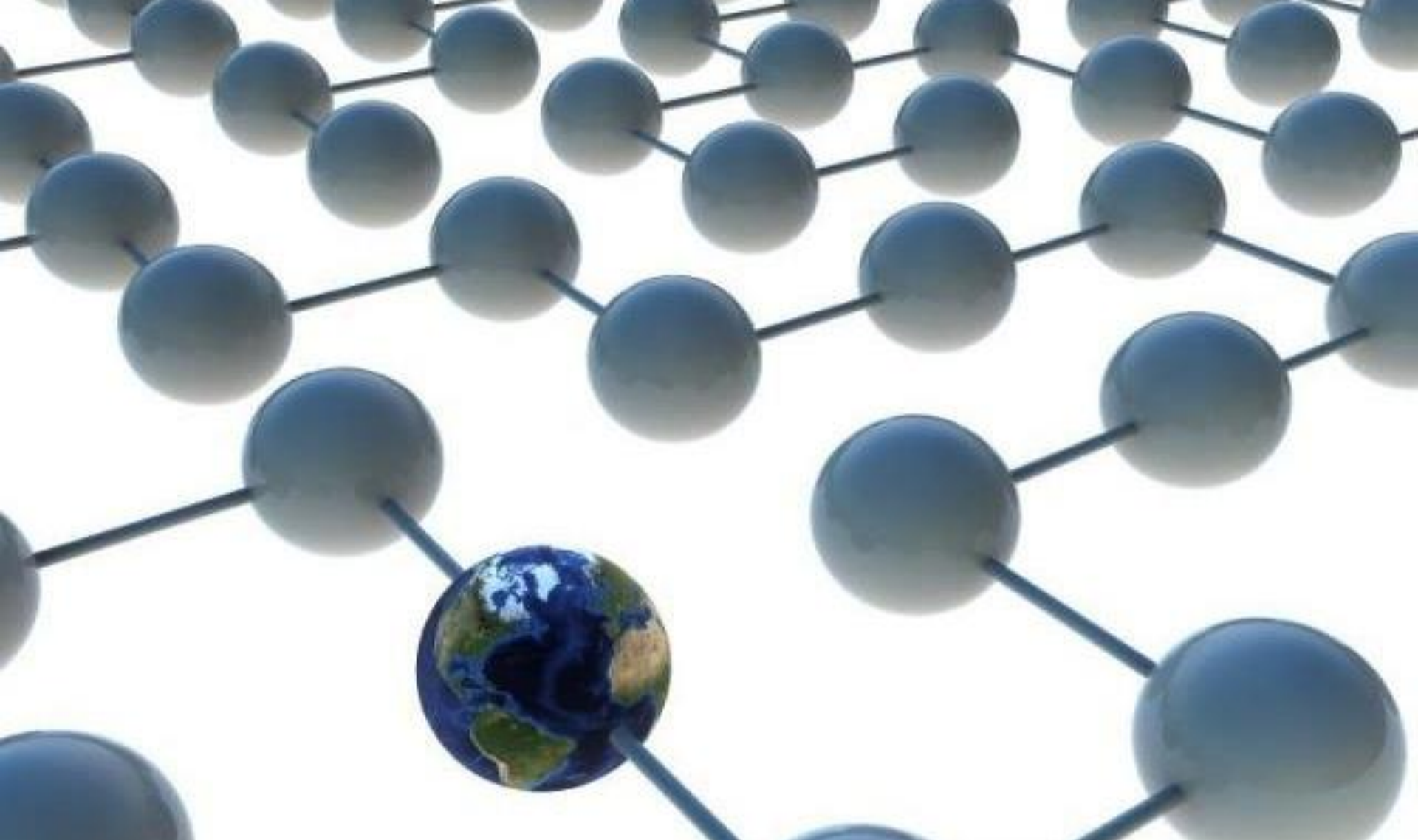
ONGOING PROJECTS



OpenAhjo

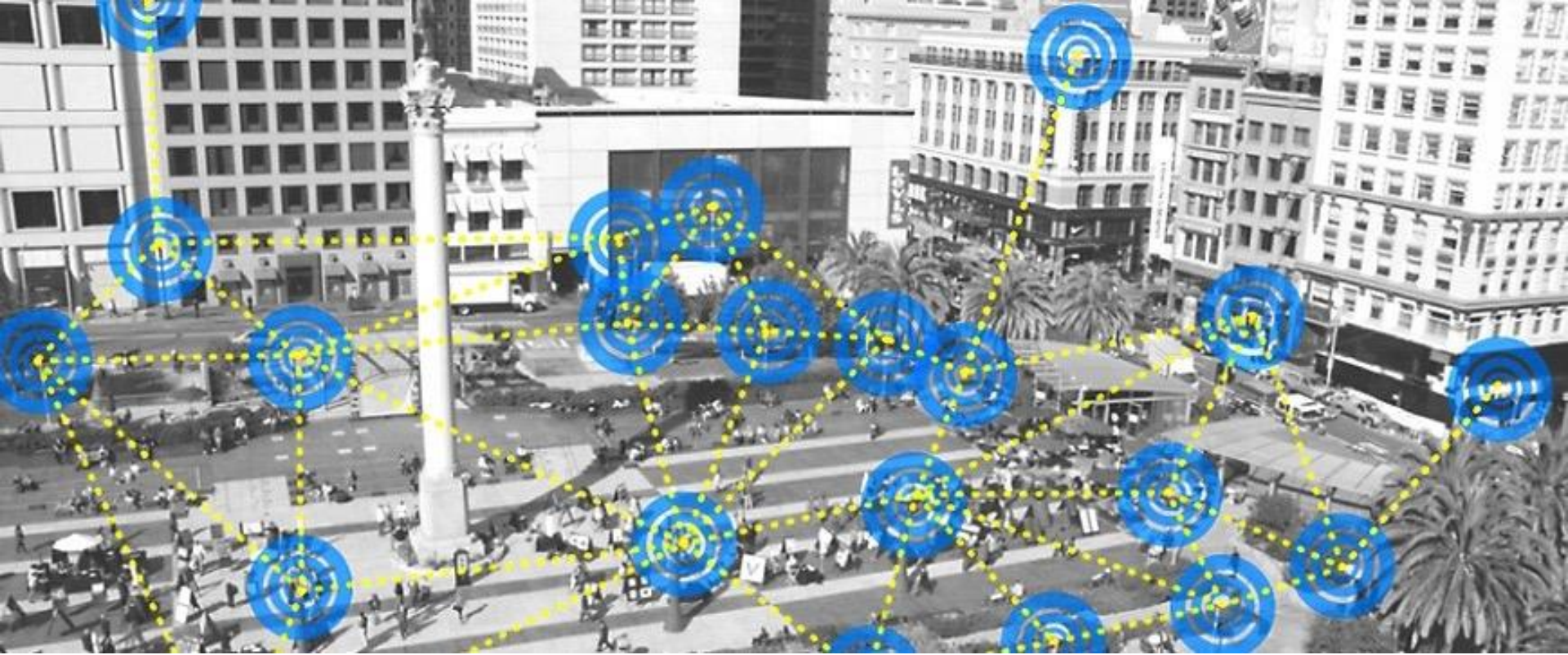


challenge: old legacy



one city is not a market

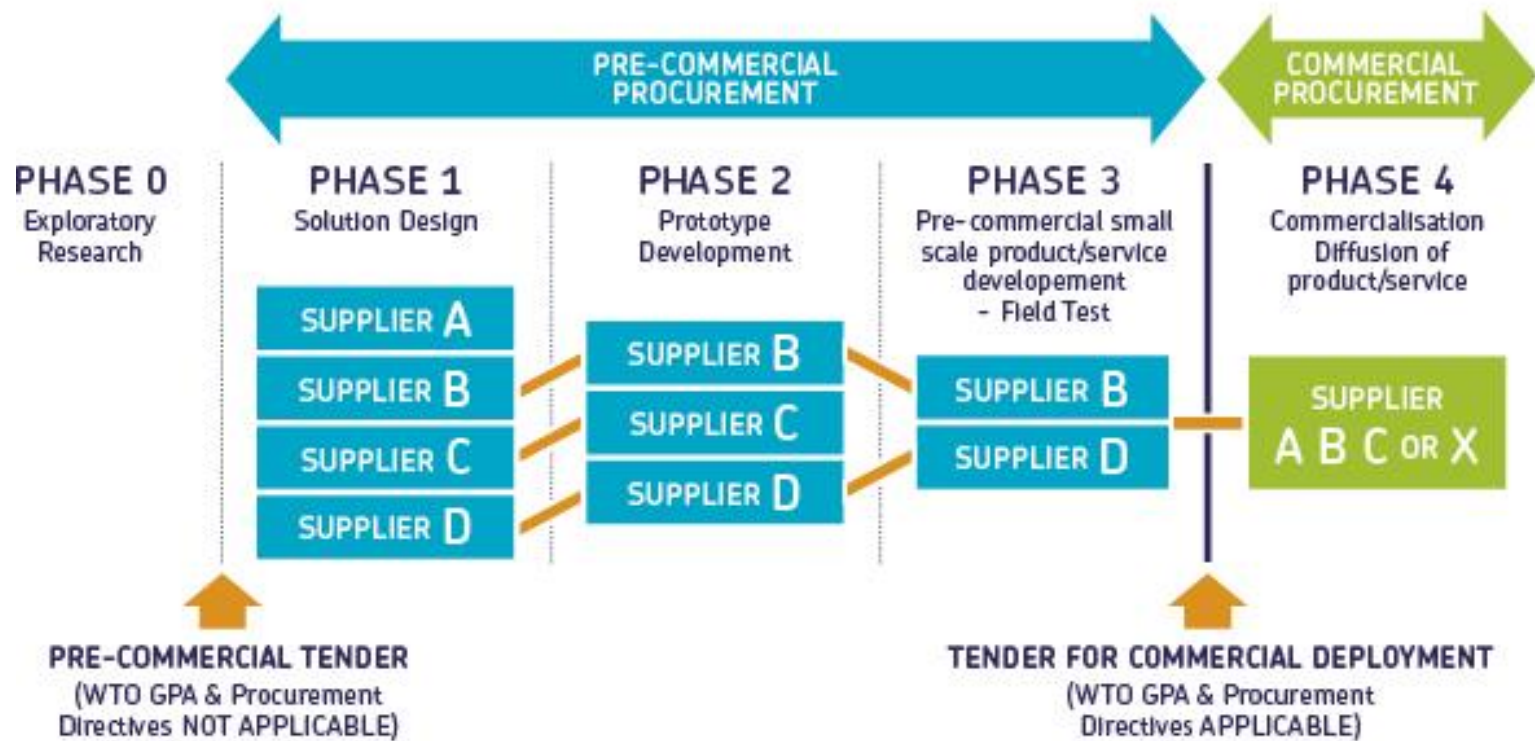
0265720	144010	056425	041531	003658	155512	117037	003655	006254
0265721	1234158	124127	170005	009004	107614	1270774	073702	067274
0265740	072451	007735	147620	061064	157435	113057	155356	114603
0265760	107204	102316	171451	046040	120223	001774	030477	046673
0266000	171317	116055	155117	134444	167210	041405	147127	050505
0266020	004137	046472	124015	134360	173550	053517	044635	021135
0266040	070125	047705	113754	125477	105533	075515	177266	056333



Cities as IoT labs (ICT-36)

- Antwerp, Copenhagen, Helsinki
- Pre-commercial procurement
- Total 6M€ / FVH 1 M€

SELECT
for Cities



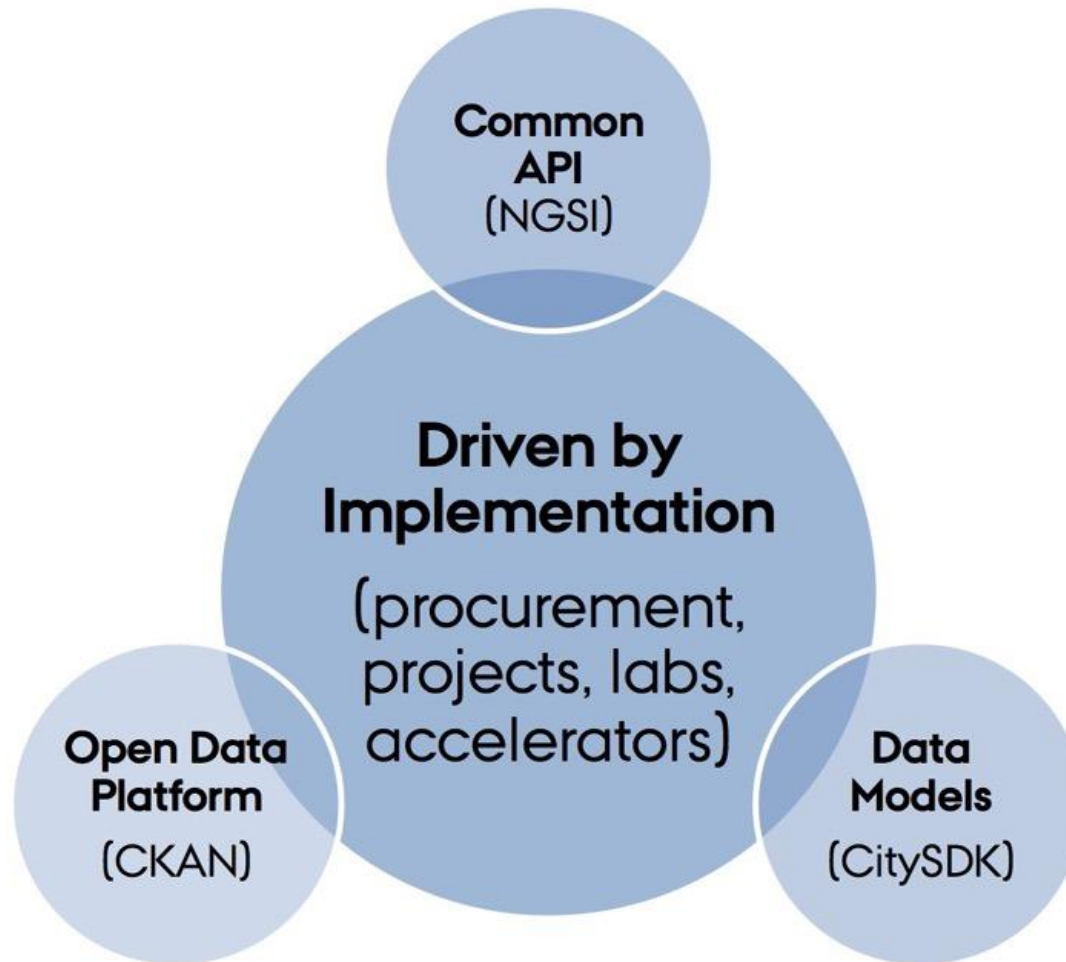
Cloud-based
Data-driven
Service-oriented
User-centric
Modular
Large-scale testing
City2City interoperability & portability



OPEN & AGILE SMART CITIES

NETWORK OF NATIONAL SMART CITY NETWORKS

OPEN & AGILE SMART CITIES





Hiihijalanjälki
Carbon footprint

18:34

Neighbourhood data:
Average CO₂ footprint / kg/m²/person

Katinkallio 26

58

50

58

72

88

Compatible Open APIs

Uusi haku 16:54

Reitit

Keskivänuorenkatu 31 - Kanavasillantie 9

Time	Mode	Duration	Destination
16:48	Walking	37 min	Pasila
16:57	M	01 00 0.8	
16:52	Walking	34 min	Pasila
17:01	M	01 00 0.8	

16:56	Walking	34 min	Pasila
17:05	M	01 04 0.8	
17:00	Walking	38 min	Pasila
17:09	M	01 00 0.8	

17:04	Walking	34 min	Pasila
17:13	M	01 00 0.8	
17:08	Walking	34 min	Pasila
17:17	M	01 00 0.8	

Myöhemmät lähdöt...



FIWARE

NGSI
Restful API



Hiihijalanjälki
Carbon footprint

18:34

Neighbourhood data:
Average CO₂ footprint / kg/m²/person

Katajanne 26

58

50

58

72

88

2

Open Data Clearing Houses

Uusi haku 16:54

Reitti

Kello	Peräla	
16:56	37 min	17:26 >
17:05	34 min	17:27 >
17:00	38 min	17:35 >
17:09	34 min	17:35 >
17:04		
17:13		
17:08		
17:17		

Myöhemmät lähdöt...

0265640	132304	133732	032051	037334	024721	015013	052226	001662
0265660	025537	064663	054606	043244	074076	124153	135216	126614
0265700	144210	056426	044700	042650	165230	137037	003655	006254
0265720	134453	124327	176005	027034	107614	170774	073702	067274



Open the data



Use the data



Linked open data portals





Hiiilijalanjälki
Carbon footprint

18:34

Neighbourhood data:
Average CO₂ footprint / kg/m²/person

Katajanmaki 26
Kluuvikatu 58
Kluuvikatu 58
Kluuvikatu 72
Kluuvikatu 88

3

Shared Data Models

Uusi haku 16:54
Reitti
Keskiväenkatu 31 - Kanavasilantie 9
16:48 0.8 M 0.1 0.8 0.8
16:52 0.8 M 0.1 0.8 0.8
17:01 0.8 M 0.1 0.8 0.8
16:56 0.8 M 0.1 0.8 0.8
17:05 0.8 M 0.1 0.8 0.8
17:00 0.8 M 0.1 0.8 0.8
17:09 0.8 M 0.1 0.8 0.8
17:04 0.8 M 0.1 0.8 0.8
17:13 0.8 M 0.1 0.8 0.8
17:08 0.8 M 0.1 0.8 0.8
17:17 0.8 M 0.1 0.8 0.8
Myöhemmät lähdöt...

Open Harmonized CitySDK Boosting Smart City Service Development



CityServiceDevelopment Kit



Co-funded by the
European Union

Feedback

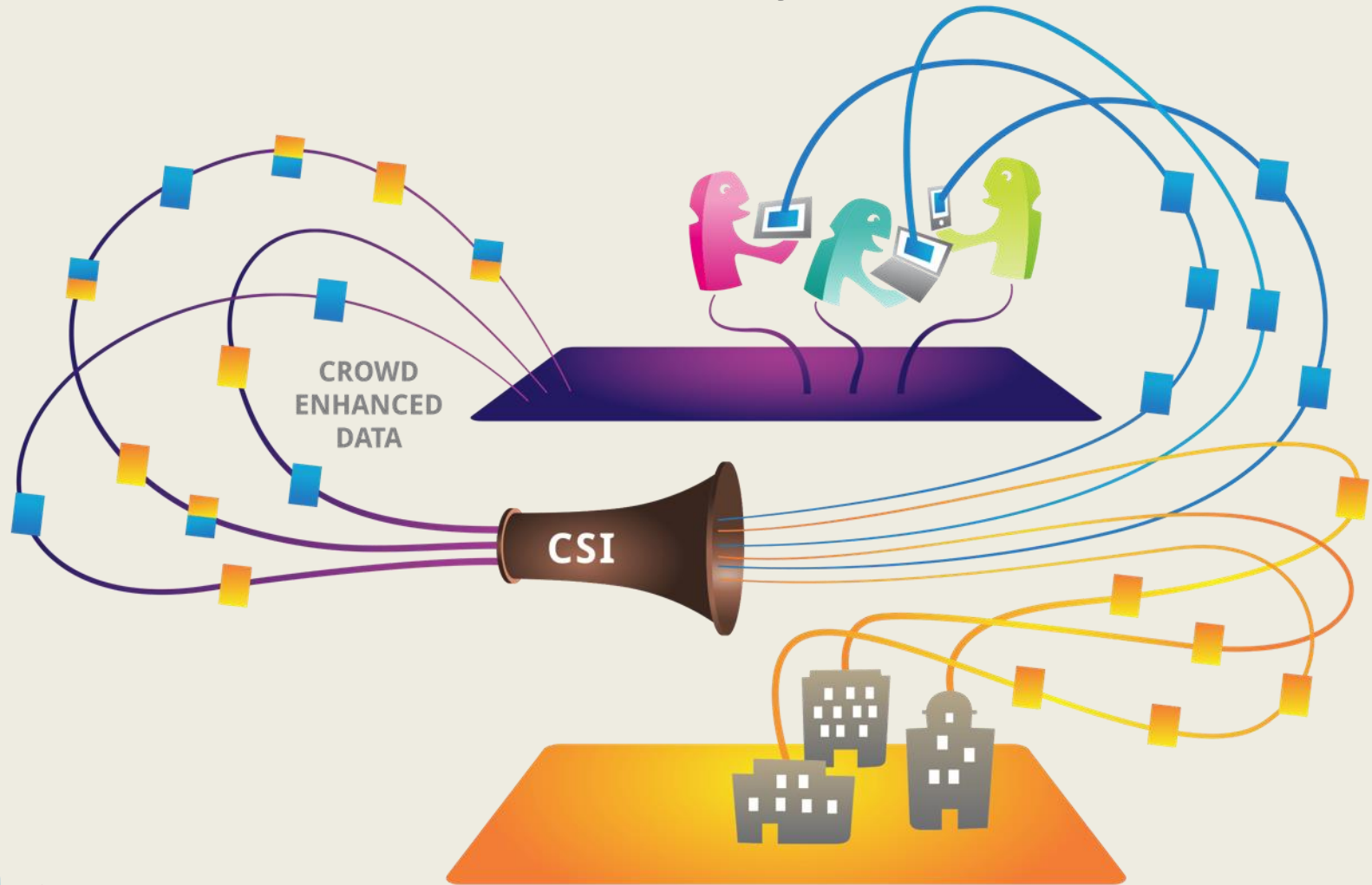


City Service Development Kit



Co-funded by the
European Union

Linked City Data

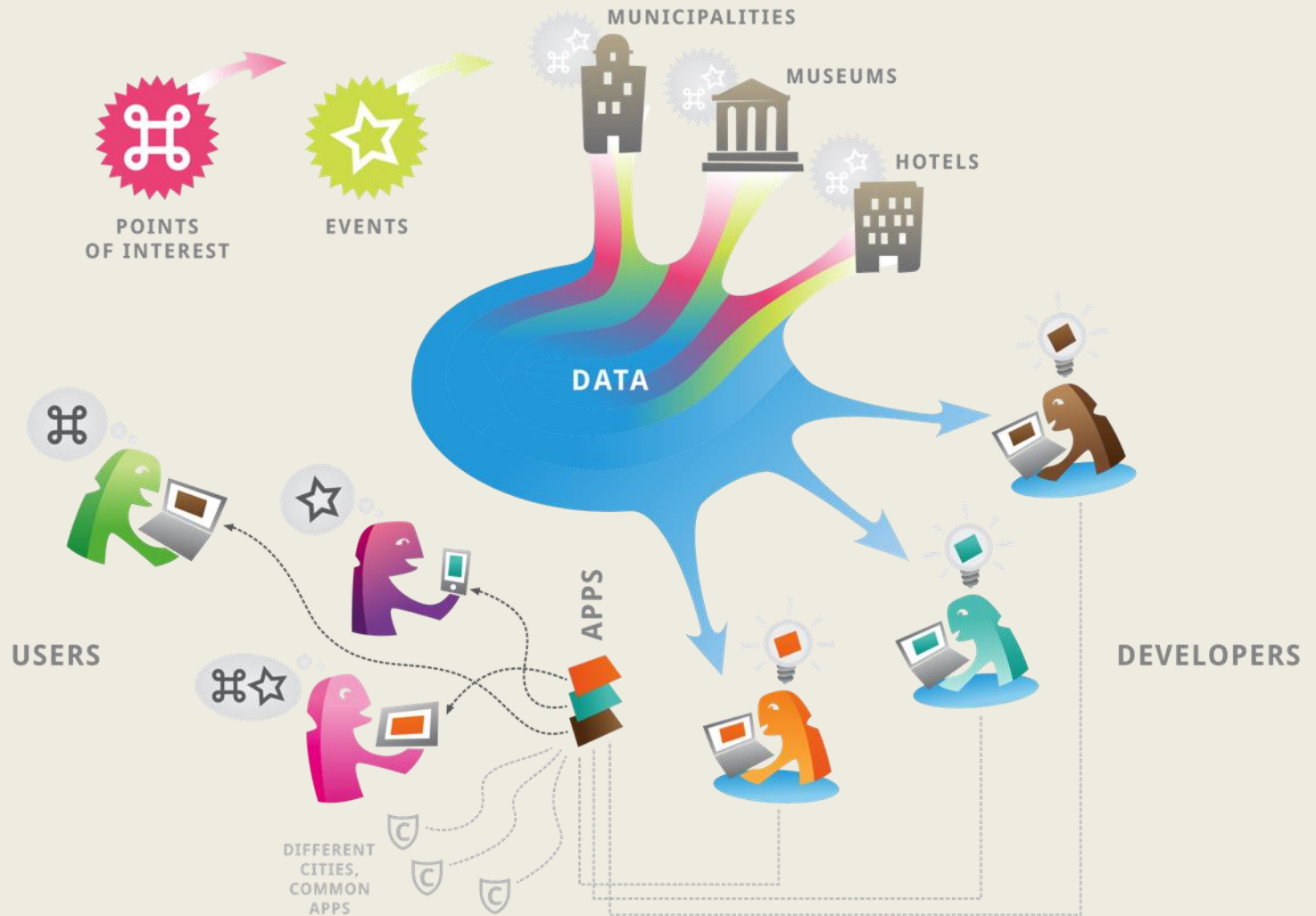


City Service Development Kit



Co-funded by the
European Union

POI Data



City Service Development Kit

Co-funded by the
European Union

ULTRAHACK

PART OF **SLUSH** HACKS

It's a slippery, slushy road to attend the Ultrahackathon.

Don't worry, we've got you covered in November 6-8, 2015 at Helsinki, Finland.

REGISTERED NOW

4 Implementation: urban labs



JS Demo 'Highway to Slush' © Livio

- 
- ## Open & Agile Smart Cities
- APIs: lightweight, open-license standard APIs
 - > FIWARE NGSI
 - Data model: standard data models for interoperability
 - > CitySDK
 - Linked Open Data Platforms:
 - > ...

CITIES
NETWORK

JANUARY 2015

OPEN & AGILE SMART CITIES

2nd wave · September 22, 2015

61

cities

12

countries in Europe and beyond

OPEN & AGILE SMART CITIES

FINLAND

- Helsinki
- Tampere
- Oulu
- Espoo
- Vantaa
- Turku

DENMARK

- Copenhagen
- Aarhus
- Aalborg
- Vejle

SPAIN

- Valencia
- Santander
- Malaga
- Sevilla
- Sabadell
- Guadalajara

BELGIUM

- Brussels
- Ghent
- Antwerp

ITALY

- Milan
- Palermo
- Lecce
- Cagliari
- Terni
-

PORTUGAL

- Lisbon
- Porto
- Penala
- Fundão
- Palmela
- Águeda

NETHERLANDS

- Amsterdam
- Rotterdam
- Eindhoven
- Enschede
- Utrecht
- Amersfoort

IRELAND

- Dublin
- Galway
- Cork

SCOTLAND

- Edinburgh
- Glasgow
- Aberdeen
- Dundee
- Perth
- Stirling

FRANCE

- Saint-Quentin
- Valenciennes
- Amiens
- Arras

AUSTRALIA

- Brisbane*
- Springfield
- Gold Coast

BRAZIL

- Olinda (Recife)
- Anápolis (Goiás)
- Porto Alegre (Rio Grande do Sul)
- Vitória (Espírito Santo)
- Colinas de Tocantins (Tocantins)
- Taquaritinga (São Paulo)
- Rio das Ostras

2nd Wave · September 2015

Open & Agile Smart Cities

Signed and negotiating

SIGNED

Brazil
6 cities

Finland
6 cities

Ireland
3 cities

Denmark
4 cities

Netherlands
5 cities

Belgium
3 cities

Spain
7 cities

Italy
4 cities

Portugal

6 cities

Negotiation target waves: 1st / 2nd / 3rd

EXISTING, OPEN, DE FACTO STANDARDS: SIMPLE, POWERFUL – AND DEMAND-DRIVEN

- Supports the Digital Single Market
- Global initiative (born in EU)
- Driven by cities (working with everyone)
- 3 mechanisms (+ driven by implementation)
- 2+ cities/country (local collaboration)
- 1 year to implement (maturity / integration)
- OASC Task Force (user-driven)

Smart City Networks

Digital Single Market

Standards & Interoperability

Open & Agile Smart Cities: Supports Digital Single Market

Digital Single Market (DSM)	Open & Agile Smart Cities (OASC)
DSM supports the interoperability of new technologies: The Free Flow of Data initiative	OASC promotes interoperability and portability of systems between cities, and within cities, by adopting a shared set of wide-spread, open standards and principles
The digital economy can expand markets and foster better services at better prices, offer more choice and create new sources of employment .	OASC supports the development of demand-driven innovative technologies and services by transforming European cities and society into digital platforms.
Industry stakeholders decide 'bottom-up' in which areas to develop standards and this is increasingly taking place outside of Europe, undermining our long-term competitiveness .	Being demand-driven, OASC boosts the necessary development of open standards, avoiding vendor lock-in and monopolisation.
A completed Digital Single Market will help companies to grow beyond the EU internal market	OASC supports the growth of European companies beyond the EU internal market through interconnecting national networks of cities on a global level.

World

Nation

City



Long term vision, agile pilots



jarmo.eskelinen@forumvirium.fi

@ElukkaE



Smartphones



NFC/RFID



Web



Open Data



SMS



Public Digital Displays