



OPEN & AGILE SMART CITIES

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oascities.org



OPEN & AGILE SMART CITIES

MODI'S 'SMART' VISION TAKES SHAPE

SMART CITIES

WHAT THEY ARE AND HOW THEY WILL HELP

Smart cities, in the most basic terms, are urban settlements that exploit technology to offer more structured and hospitable living conditions for residents.

Information and Communication Technology (ICT) forms the backbone of smart cities and is the main tool to address common problems like congestion and waste of energy.

Such cities have a centralised control system which provides real-time inputs on availability of water, electricity, public transport, healthcare and education.

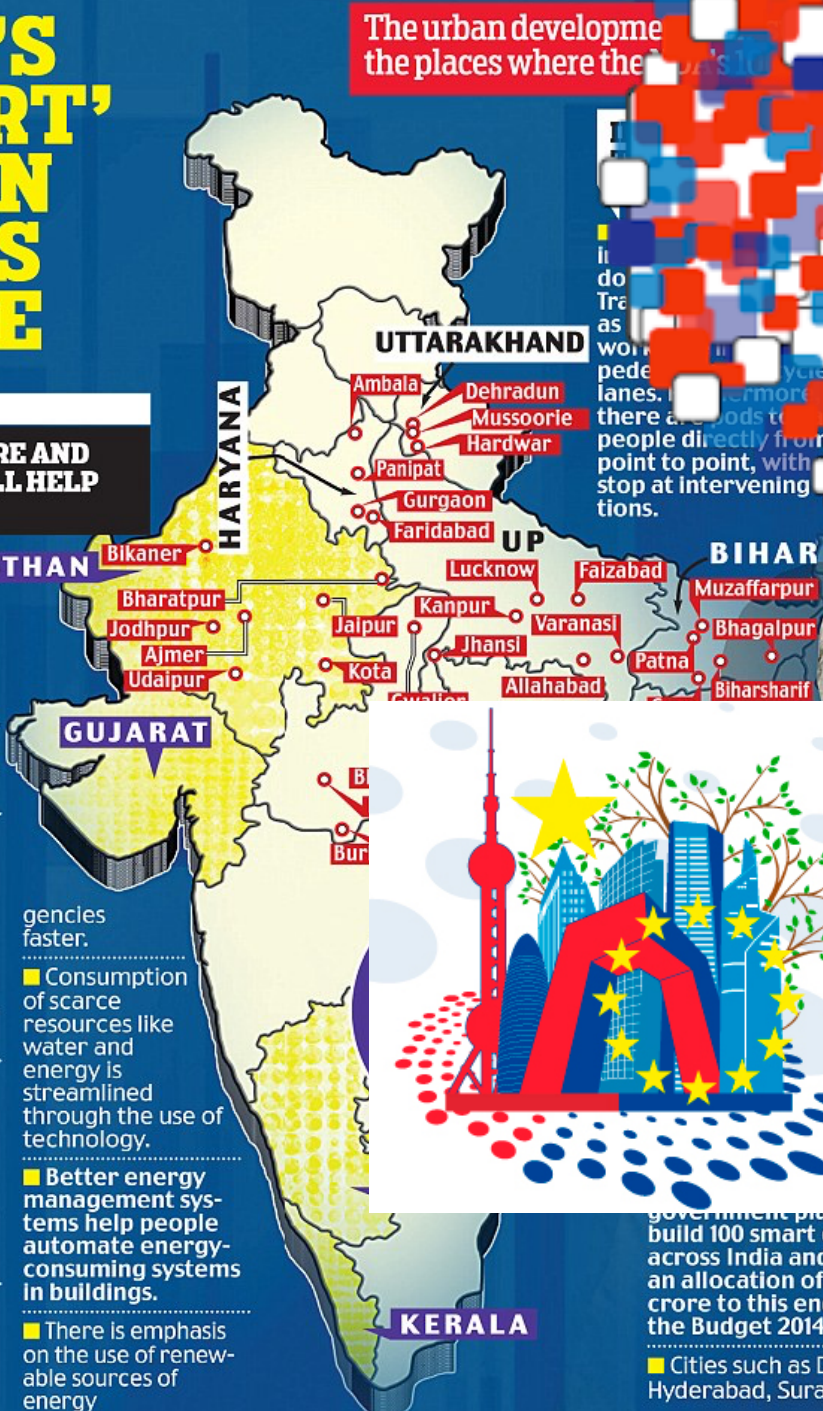
Intelligent communication tools enable administrators to manage and respond to emer-

gencies faster.

Consumption of scarce resources like water and energy is streamlined through the use of technology.

Better energy management systems help people automate energy-consuming systems in buildings.

There is emphasis on the use of renewable sources of energy



The urban development... the places where the...

identified almost all...
 there are roads to...
 people directly from...
 point to point, with...
 stop at intervening...
 tions.



government plans to build 100 smart cities across India and made an allocation of ₹7,060 crore to this end in the Budget 2014-15.

Cities such as Delhi, Hyderabad, Surat, networks, traffic management frameworks, smart meters, GPRS for solid waste management, online water quality monitoring, online building plan approval schemes, etc

EUROPEAN INNOVATION PARTNERSHIP ON SMART CITIES AND COMMUNITIES

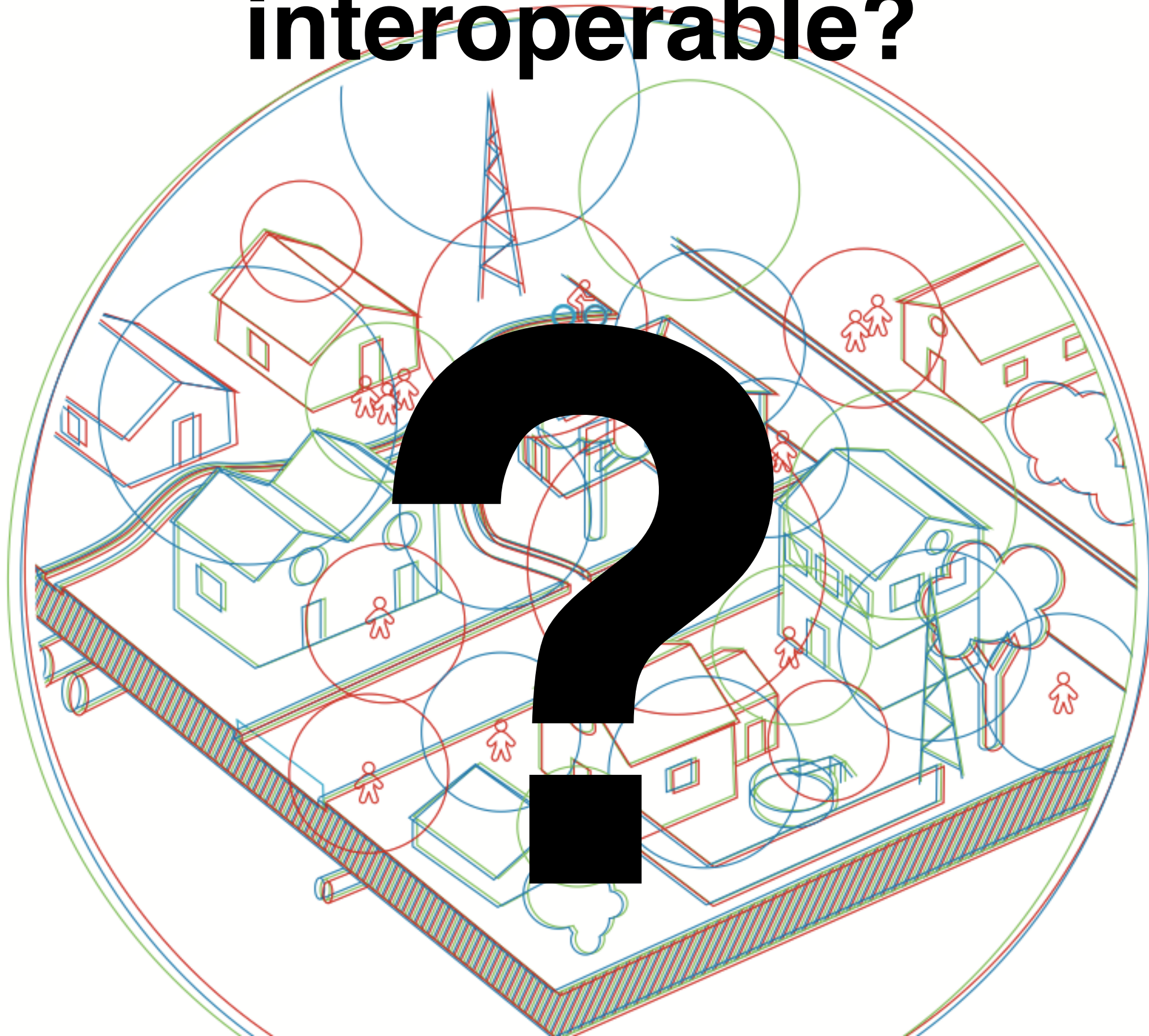


2015 EU-CHINA URBANISATION PARTNERSHIP FORUM



Europe's cities... ing smarter

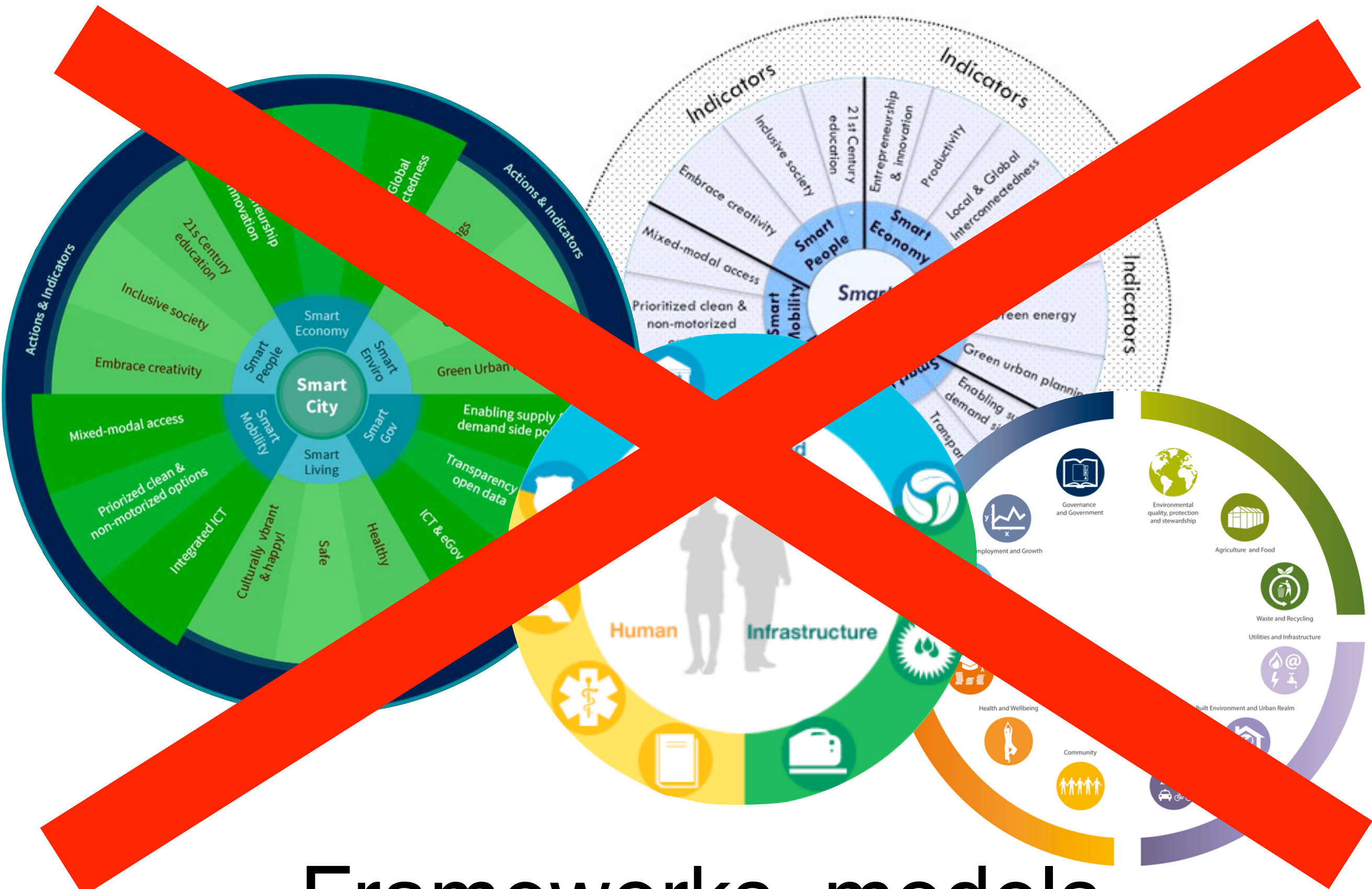
How to make IoT interoperable?



- **political vision**
- **organizing across silos**
- **mobility**
- **law**
- **(self)surveillance**
- **resource sharing / commons**
- **IT infrastructure**
- **tools for co-creation**
- **financing**

- **growth**
- **city-collaboration**
- **climate measures/resilience**
- **(pre-)procurement**
- **competence building/education**
- **development methods**
- **utilities**

GROWTH (JOBS)
NICE CITIES



Frameworks, models

**THERE IS NO
SMART CITY
MARKET
BASED ON
CITY NEEDS**



OPEN & AGILE SMART CITIES

AUSTRALIA

- Brisbane
- Gold Coast
- Springfield

AUSTRIA

- **Salzburg**
- **Linz**
- **Graz**
- **Salzburg**

BELGIUM

- Antwerp
- Brussels
- Ghent
- Leuven

BOSNIA AND HERZEGOVINA

- Mostar
- Sarajevo
- Tuzla

BRAZIL

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

CROATIA

- Dubrovnik
- Sibenik
- Split

DENMARK

- Aalborg
- Aarhus
- Copenhagen
- Vejle

ENGLAND

- Bristol
- Leeds
- Manchester
- **Milton Keynes**
- **Cambridgeshire**

FINLAND

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

FRANCE

- Amiens
- Arras
- Saint-Quentin
- Valenciennes

IRELAND

- Cork
- Dublin
- Galway
- Limerick

ITALY

- Ancona
- Cagliari
- Lecce
- Messina
- Milan
- Palermo
- Terni

MEXICO

- **Cuautla**
- **Guanajuato**
- **Leon**

NETHERLANDS

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

POLAND

- **Gdansk**
- **Grudziadz**

PORTUGAL

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

SCOTLAND

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

SLOVENIA

- **Koper**
- **Idrija**

SPAIN

- Guadalajara
- Las Palmas
- Malaga
- Murcia
- Sabadell
- Santander
- Sevilla
- Valencia



OPEN & AGILE SMART CITIES

4th wave · February
17, 2016

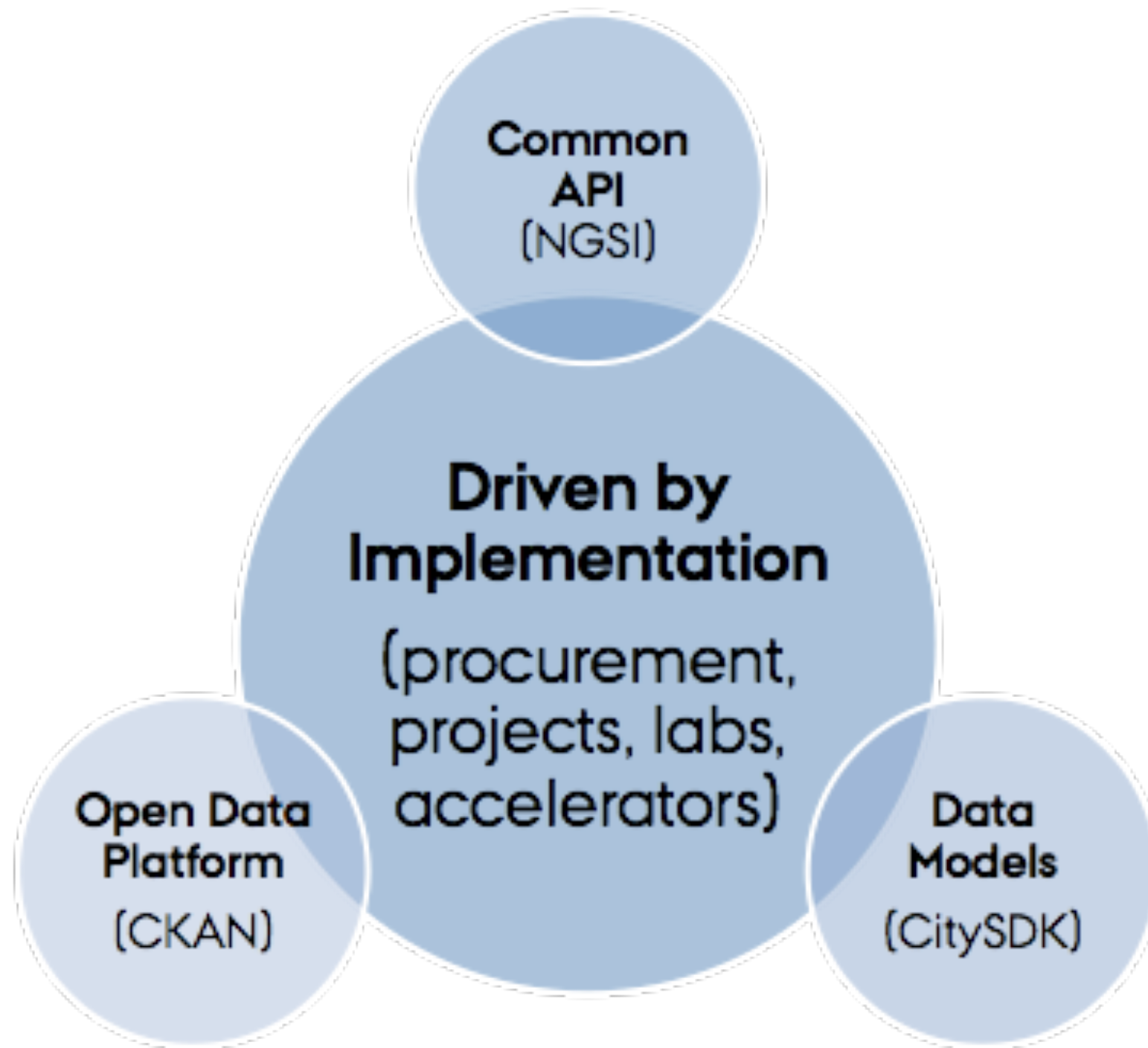
89

cities

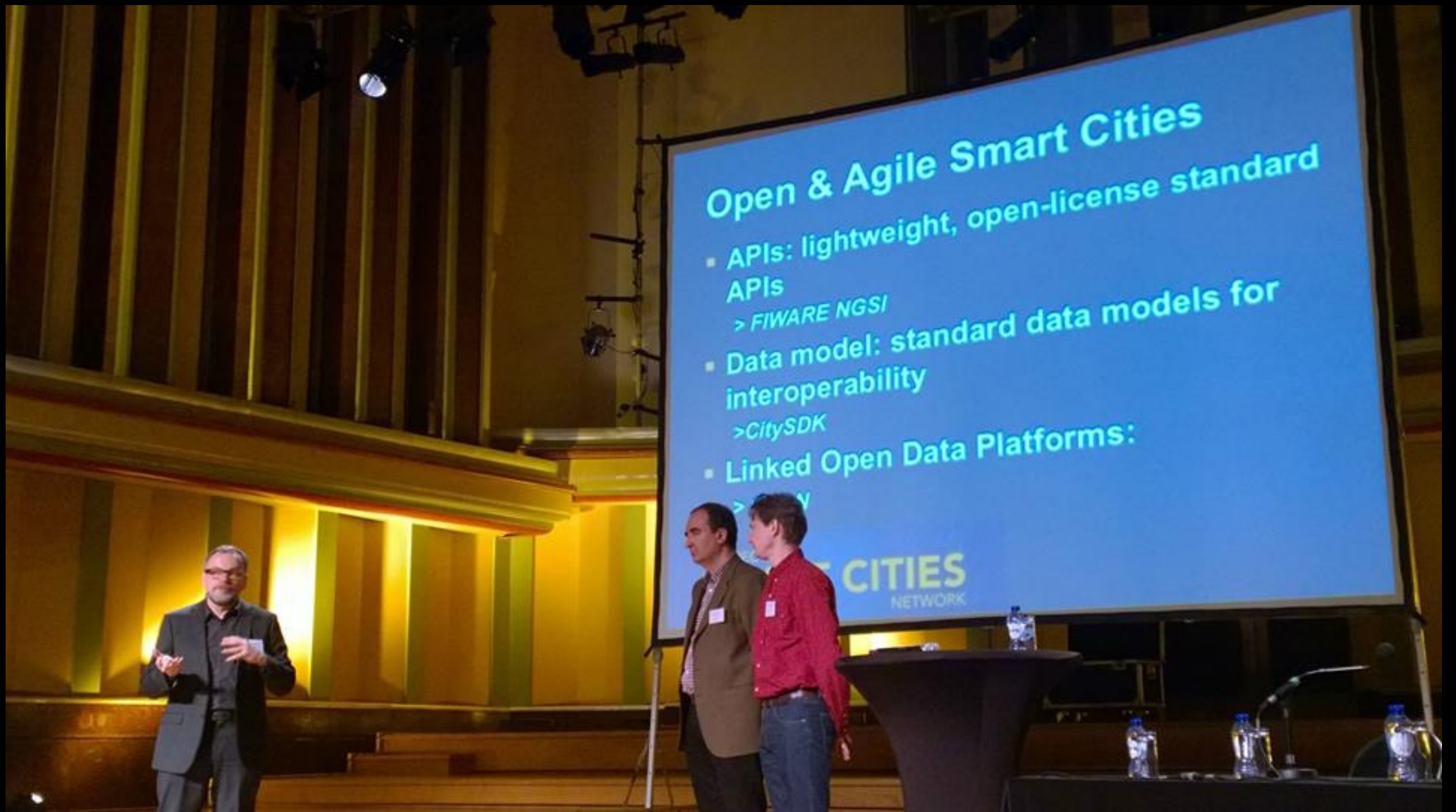
19

countries

OPEN & AGILE SMART CITIES



- Version 1.0 based on
- **NGSI: FIWARE**
Implementation of the Open Mobile Alliance Next Generation Service Interfaces Specification
 - **CitySDK: City Service Development Kit**
 - **CKAN: Comprehensive Knowledge Archive Network**



JANUARY 2015



Opening of OASC Secretariat in Brussels

5G in Cities (1)

- Cities are main hubs of digital connectivity and complexity.
- Already now, large investments.
- Digital changes governance, with near-real-time data.
- Public-private, multi-sectoral inevitable; strong voice of cities.
- Main use cases: latency-critical interactions, robo-governance (fixing things in dangerous situations).



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Martin Brynskov, Chair
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Envoy

—
89 cities

19 countries

Europe, Latin America,
Asia-Pacific

—
www.oascities.org
info@oascities.org

5G in Cities (2)

- Win-win attitude is essential to be successful in cities.
- Systematic experimentation and pre-commercial procurement.
- >1 trillion market coming decade.
- Regulatory changes necessary.

Key related initiatives

- EIP-SCC: eu-smartcities.eu
- IoT Largescale Pilots and AIOTI: aioti.eu
- Open & Agile Smart Cities: oascities.org



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5G in Cities (3)

- Business models are challenging.
- Economies of scale might not apply.
- High-latency (LPWAN etc.) is cheap.
- Verticals are not optimal.
- Limited testing facilities in cities.
- Public services needs focus.



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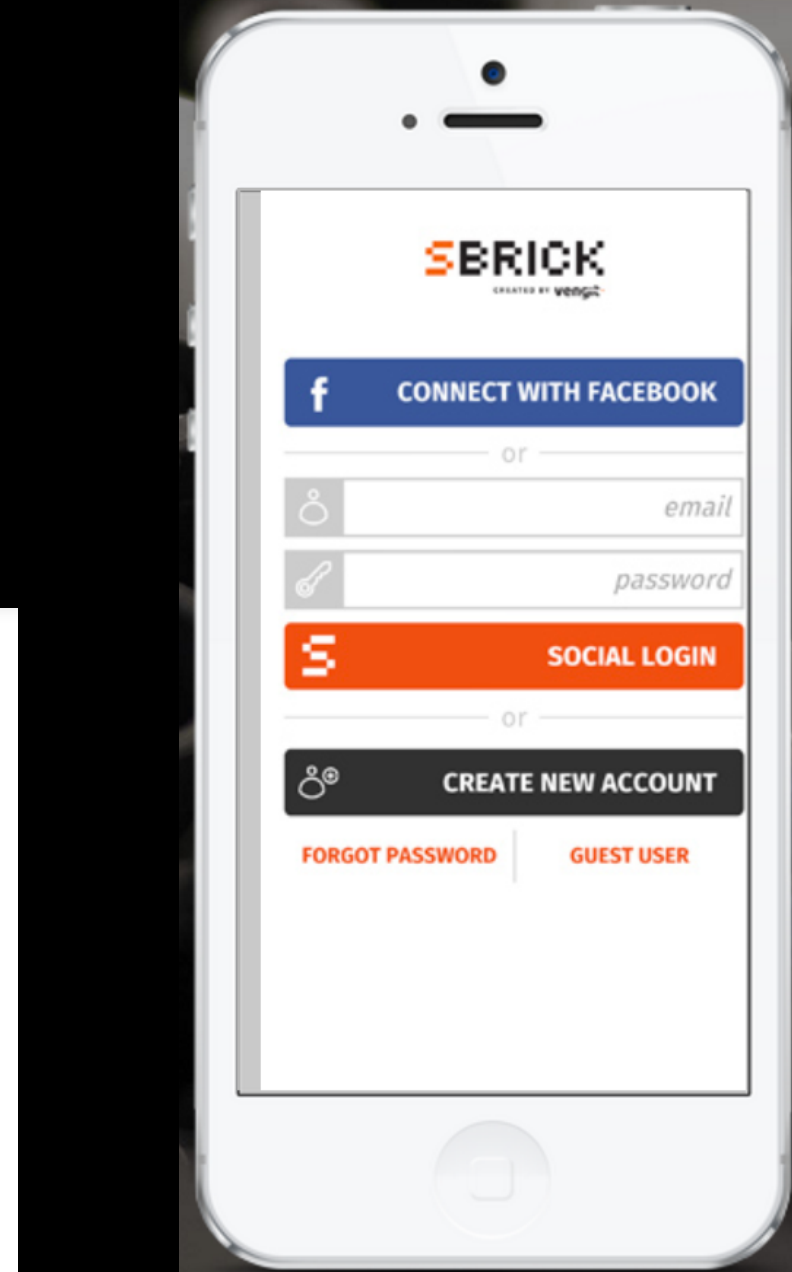
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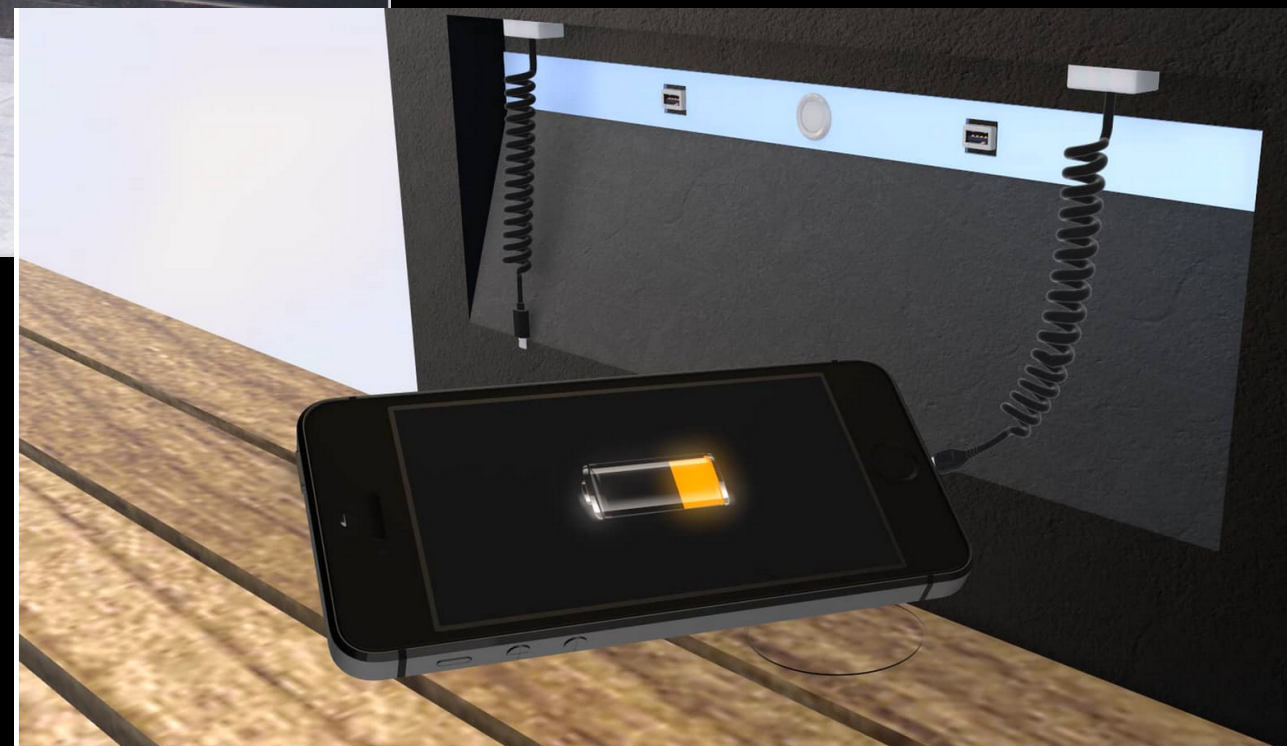
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**& STARUPS CAN UTILIZY 5G FOR
BETTER SERVICES**

IoT in education



IoT enabled smart objects



IoT in Biking



KICKSTARTER



BeeLine - Smart navigation for bikes, ma

250%
funded

€150K
pledged

3,038
backers

WIRED

engadget

Stuff

the

de
zeen

bikeradar

Cycling

road.cc

Social Injustice filmed via VR to anyone/elderly people (documentary project)

CRACKED
in the **HEAD**



VR for disabled



[HOME](#) [OUR PHILOSOPHY](#) [AWARDS](#) [PRODUCTS](#) [SUPPORT](#) [PRESS](#) [CONTACT](#)

GYROSET™ Glory

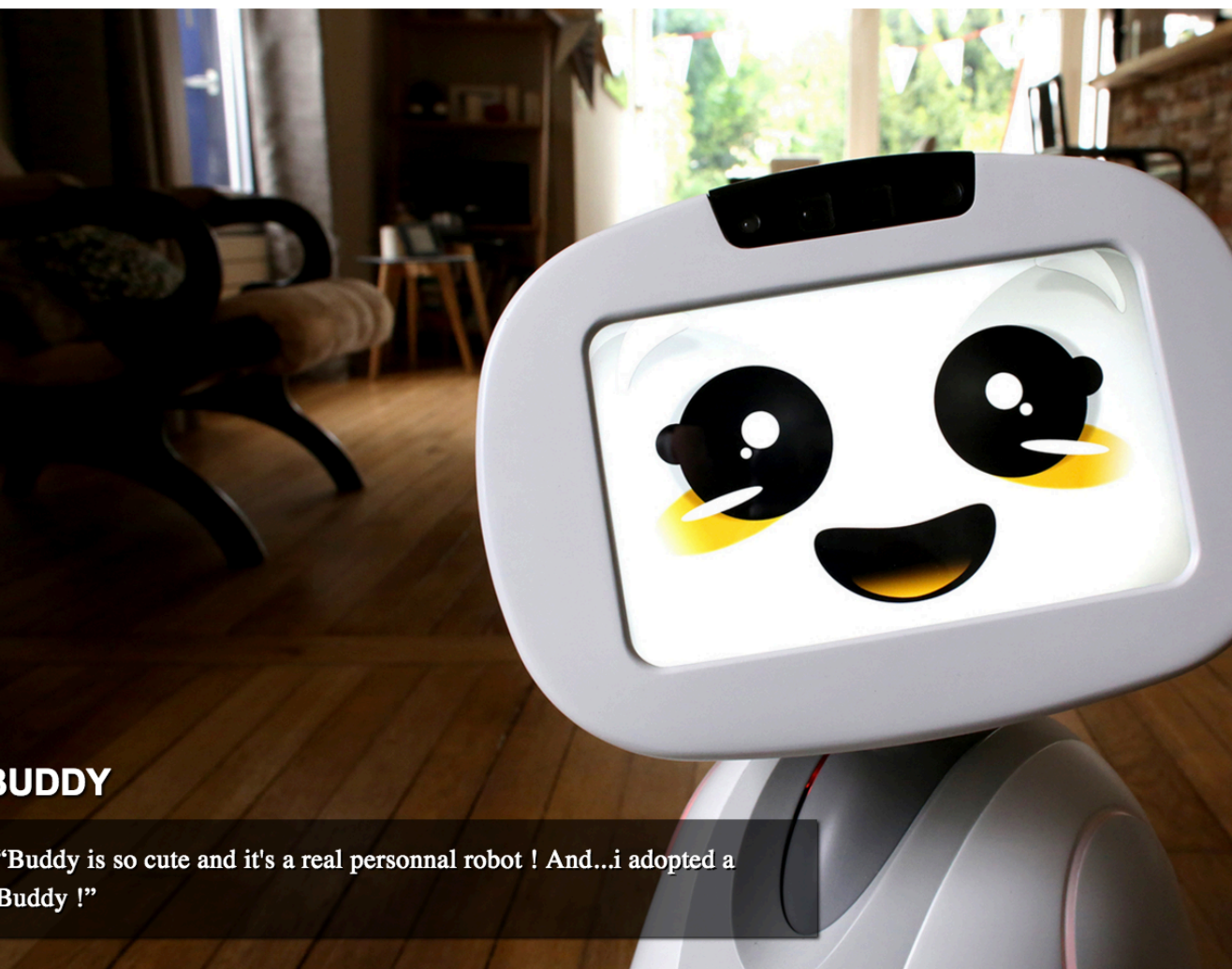
The Gyroset™ Glory headset is an unobtrusive, lightweight, yet durable headset specially designed to serve the needs of tetraplegic wheelchair users by capturing and processing head gestures.



Home robots



Best Personal Robots

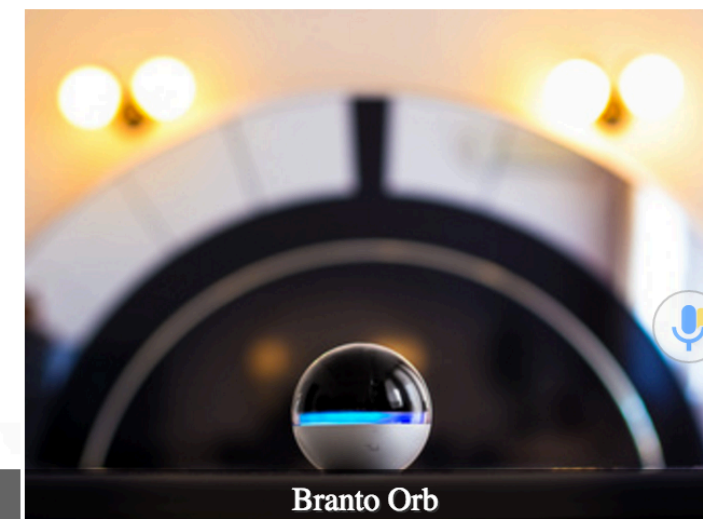


BUDDY

"Buddy is so cute and it's a real personal robot ! And...i adopted a Buddy !"



Jibo



Branto Orb



Echo



Personal Robot

Sensor enabled agriculture



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World's Best Aquaponics Startups



ROOTS



Grove



Friendly Aquaponics



Nelson And Pade



The Aquaponic Source

**CONNECTED SMART CITIES
CONFERENCE 2017**

“Making IoT work for cities and citizens”

January 12, 2017, Brussels

Committee of the Regions

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