"Stop **talking** the talk and **start walking** the walk"

Quote The Hon Angus Taylor MP
Assistant Minister for Cities and Digital Transformation

SMART CITY EMBASSY

City of Rotterdam

Den Haag
VREDE EN RECHT

EINDHOVEN

UTRECHT

Overview
Dutch Smart Cities

amsterdam smart city

amsterdam smart city

DUTCH CYCLING EMBASSY

Ministerie van Infrastructuur en Milieu

Connekt

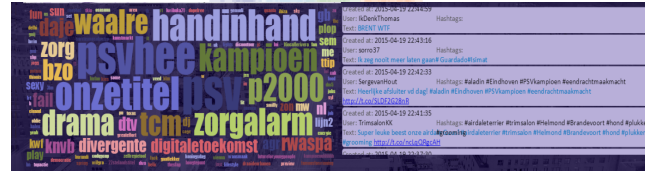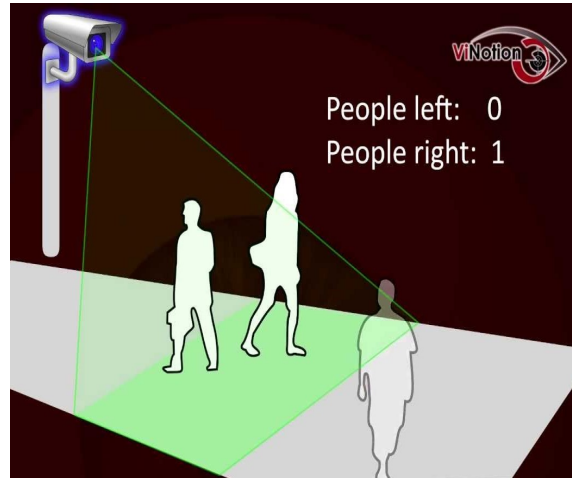# SMART CITY EMBASSY

Stratumseind De-escalate
City of Eindhoven

Living lab De-escalate:
- Influencing behaviour with colour of light

Monitoring:
- Camera's
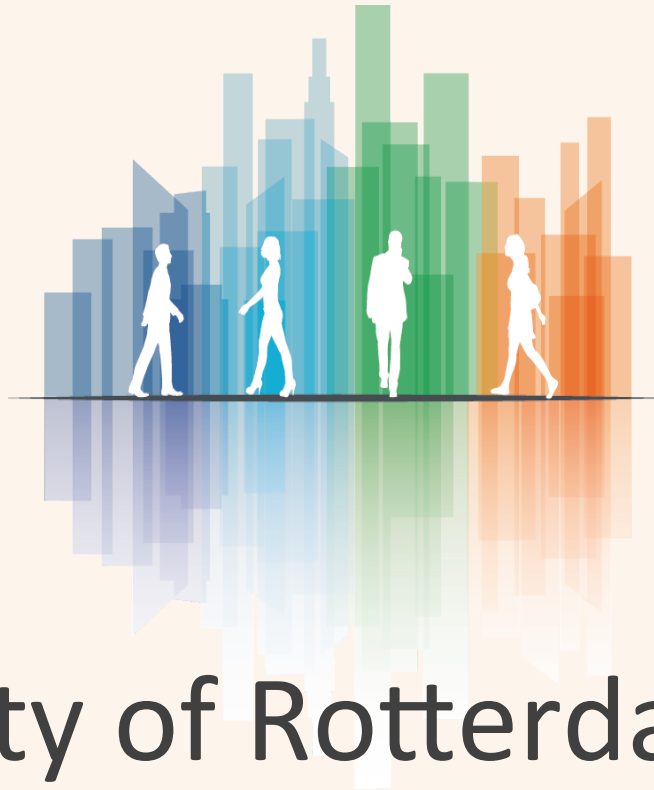- Walking patterns
- Sound analytics
- Social media analytics

Benefits:
- Safer and more sociable environment for visitors and citizens

- Police resources focussed where they are really required

- Business owners have lower repair and clean-up costs

- Less need for hospital and medical resources due to fewer alcohol related incidents

- More business and tourism attracted to the city due to a fall in negative PR

SMART CITY EMBASSY

City of Rotterdam

amsterdam
smart
city

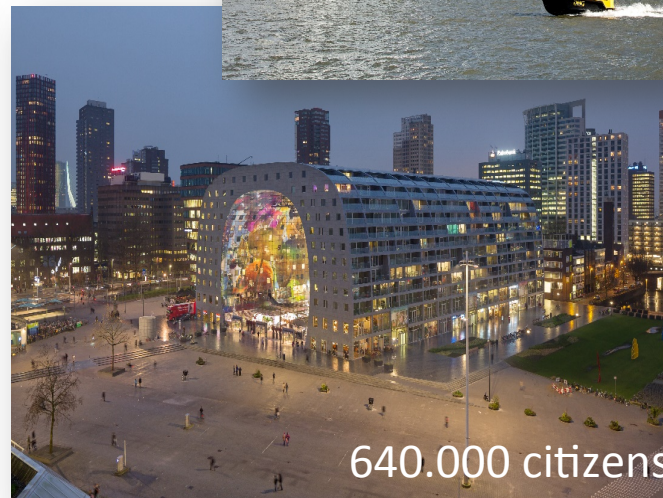DUTCH
CYCLING
EMBASSY

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City of Rotterdam

Incidental waterstorage

Smart City Rotterdam – Focus Points
Resilient City Strategy – next step
- City Solutions for Climate Change
- Future proof City Development
- Cyber Resilience
- Citizen Centric

Smart Asset management
Innovation CityLab's - Incubator center
Rotterdam 3D / virtual city
EU-projects / Smart City Lighthouse
Roadmap Next Economy

amsterdam smart city

DUTCH CYCLING EMBASSY

Ministerie van Infrastructuur en Milieu

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City of Rotterdam

SMART CITY EMBASSY

Integration of dynamic Led-lightning with single telemanagement

Pilot project Havenspoorpad

Proef met dynamische led verlichting in combinatie met standaard telemanagement protocol ALiS

Aanvang: december 2014   Gereed: december 2015

elspec   Harvard   Luminext   MAIKEN CONTROL SYSTEMS   PHILIPS   Ziut   TVILIGHT   LIGHTWELL   lux groep

Opdrachtgever   Gemeente Rotterdam

Inlichtingen: www.rotterdam.nl/havenspoorpad

Lightwell tests with city lightning
including car-charging module

The pilot has defined an open
standard for city-lightning

ALiS

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Smart City Challenges

- Cross-over integration
- Implementation of Smart City architect
- Overall Smart City communication
- Complexity of Smart City theme
- Scaling up pilot's into large scale implementations

Rotterdam is focussing on Future/Next City:

- Strong innovation Eco-system
- Focus on Resilience
- Virtual City as communication platform
- Development and use of (Open) Standards
- Regional approach via Roadmap Next Economy

Healthy Urban Living
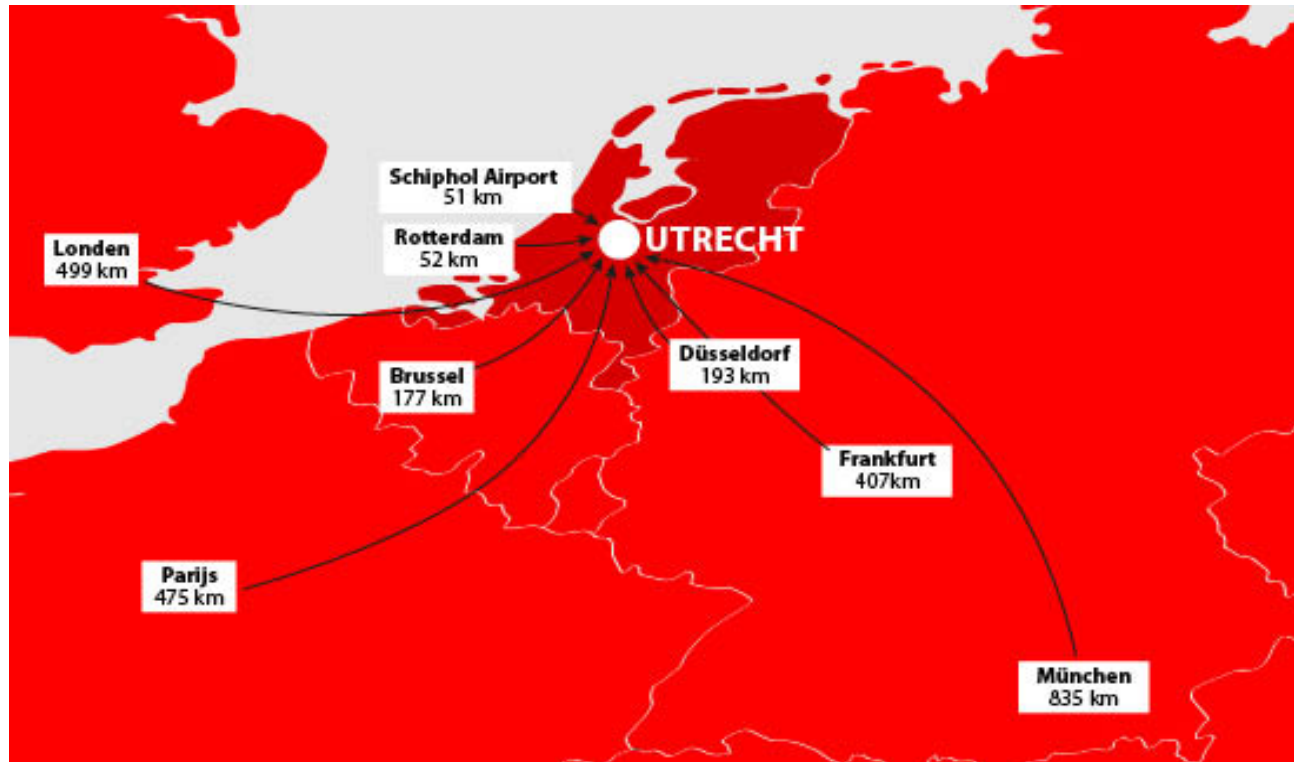## Utrecht Young & High educated

230.069 jobs
39.600 business services
36.300 health care
17.809 creative sector
20.934 jobs Utrecht Science Park

444.500 daily work commuters
By car 51%, 15% public transport, 34% by bike of other
122.600 to the city
80.600 from the city

334.862 citizens,
20 % < 17, 18% 18-26, 32% 27-44, 20% 45-64, 10% 65 >
45% high educated, 72.500 students UU&HU
Best University (Shanghai ranking 2014)

UTRECHT

Healthy Urban Living
Smart management of healthy growth
Citizens, Travellers & Traffic Flow

332.000 => 400.000 residents

88 million => 100 million pro year

40.000 Cyclists pro day – Bicycle parking

440.000
Work- & Live Commuter

Healthy, Green, Smart & Connected
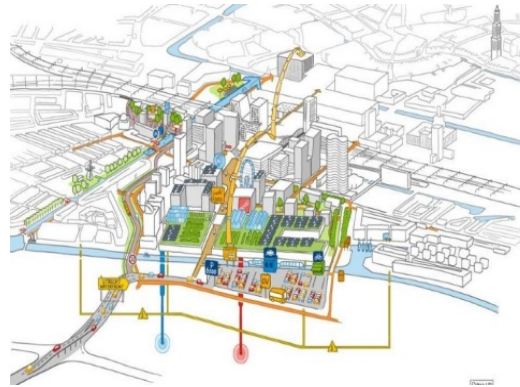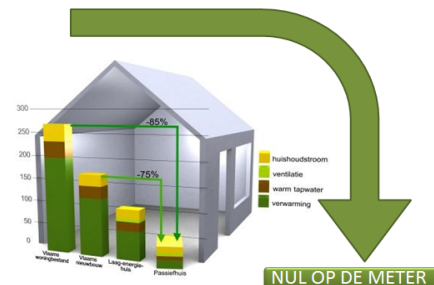
Smart Environment – Smart Living

Station Area

Health Hub

Healthy Urban Development

Healthy Urban Boost

Care & Cure

Healthy buildings
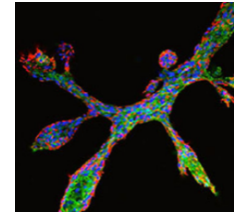
Healthy People

UTRECHT

Healthy, Green, Smart & Connected
Smart Mobility – Smart Environment

Energy
Mobility
Electric Transport
Smart Grids
Solar Charging
Green Rooftops

UTRECHT

Healthy Urban Living

Healthy, Green, Smart & Connected

Smart People: Innovation Hubs: EBU, knowledge institutes, companies, networks, citizens, government, crossovers in the green, healthy and smart domains
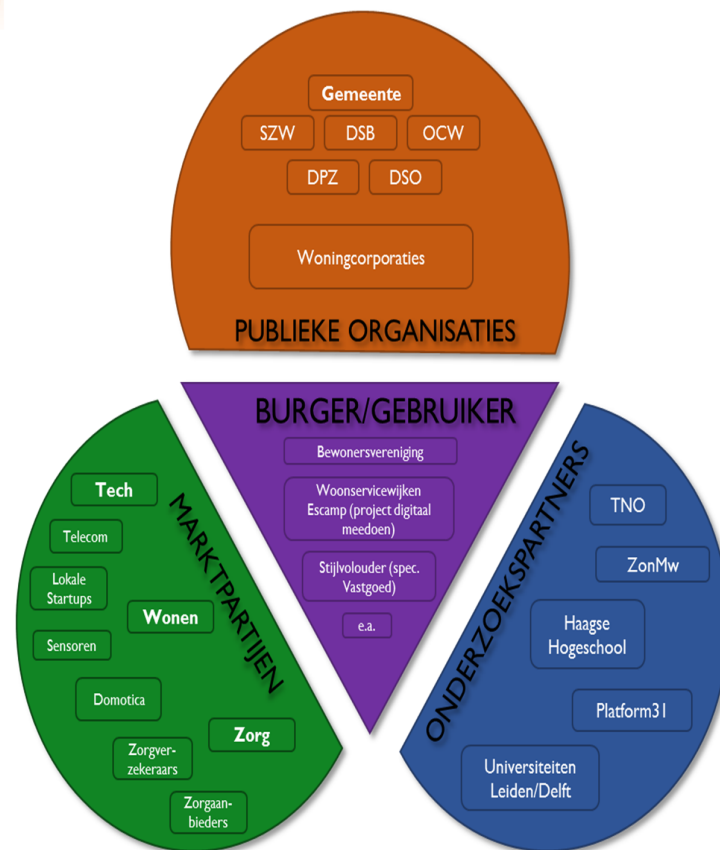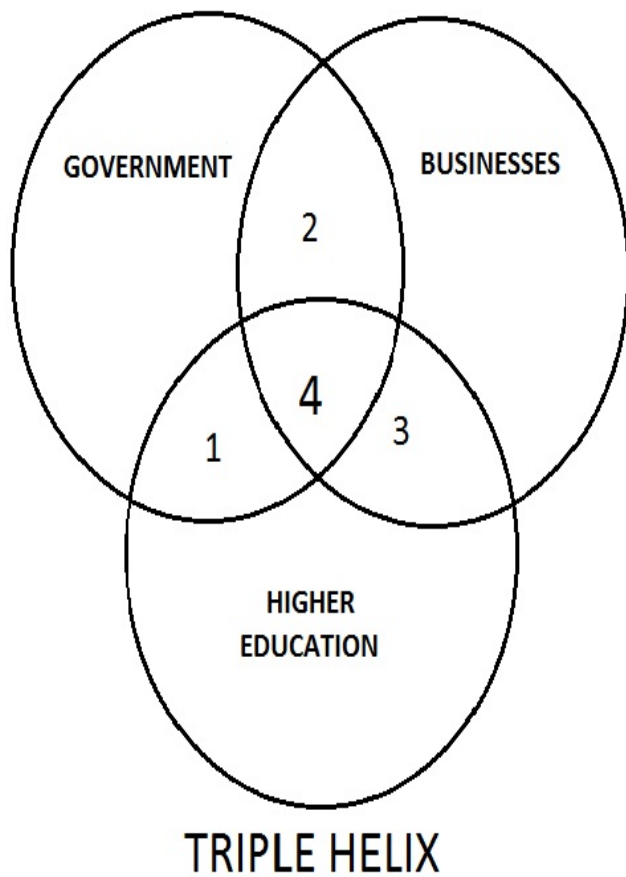
SMART CITY EMBASSY

Den Haag

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DUTCH
CYCLING
EMBASSY

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SMART CITY EMBASSY

GOVERNMENT

BUSINESSES

2

4

1

3

HIGHER EDUCATION

TRIPLE HELIX

PUBLIEKE ORGANISATIES

Gemeente

SZW   DSB   OCW

DPZ   DSO

Woningcorporaties

BURGER/GEBRUIKER

Bewonersvereniging

Woonservicewijken Escamp (project digitaal meedoen)

Stijlvolouder (spec. Vastgoed)

e.a.

MARKTPARTIJEN

Tech

Telecom

Lokale Startups

Sensoren

Wonen

Domotica

Zorgver-zekeraars

Zorg

Zorgaan-bieders

ONDERZOEKSPARTNERS

TNO

ZonMw

Haagse Hogeschool

Platform31

Universiteiten Leiden/Delft

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CITY PROTOCOL

Smart City is about the art:

happiness of your citizens

SMART CITY EMBASSY

"The concept of Smart Cities is like

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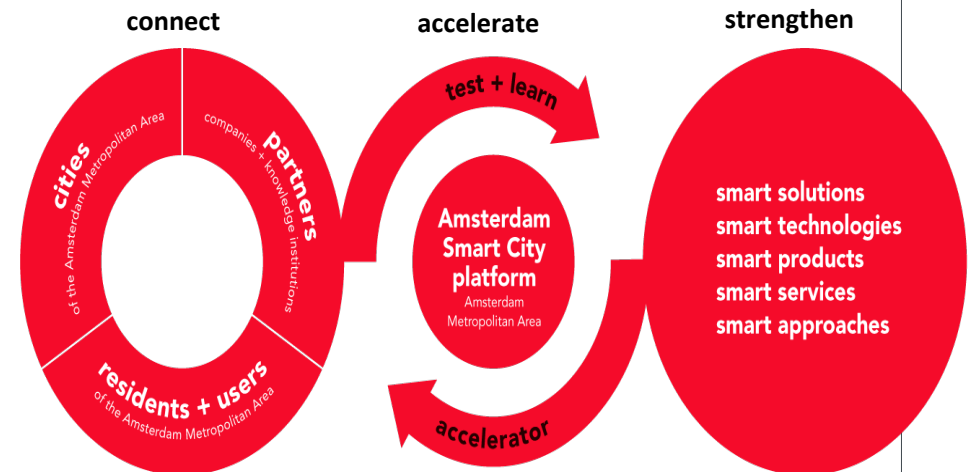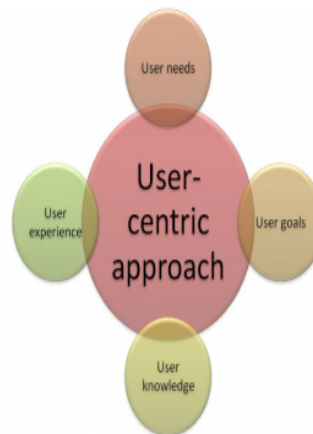*the context is more important than the product"*

Amsterdam Smart City (2008) is a **unique collaboration** between the Amsterdam

- **citizens**
- **businesses**
- **governments**
- **knowledge institutions**

in order to illustrate how energy can be saved,

now and in the future

- **arms length of government**
- **open**
  - platform
  - source
  - data
- **cross silo – holistic approach**
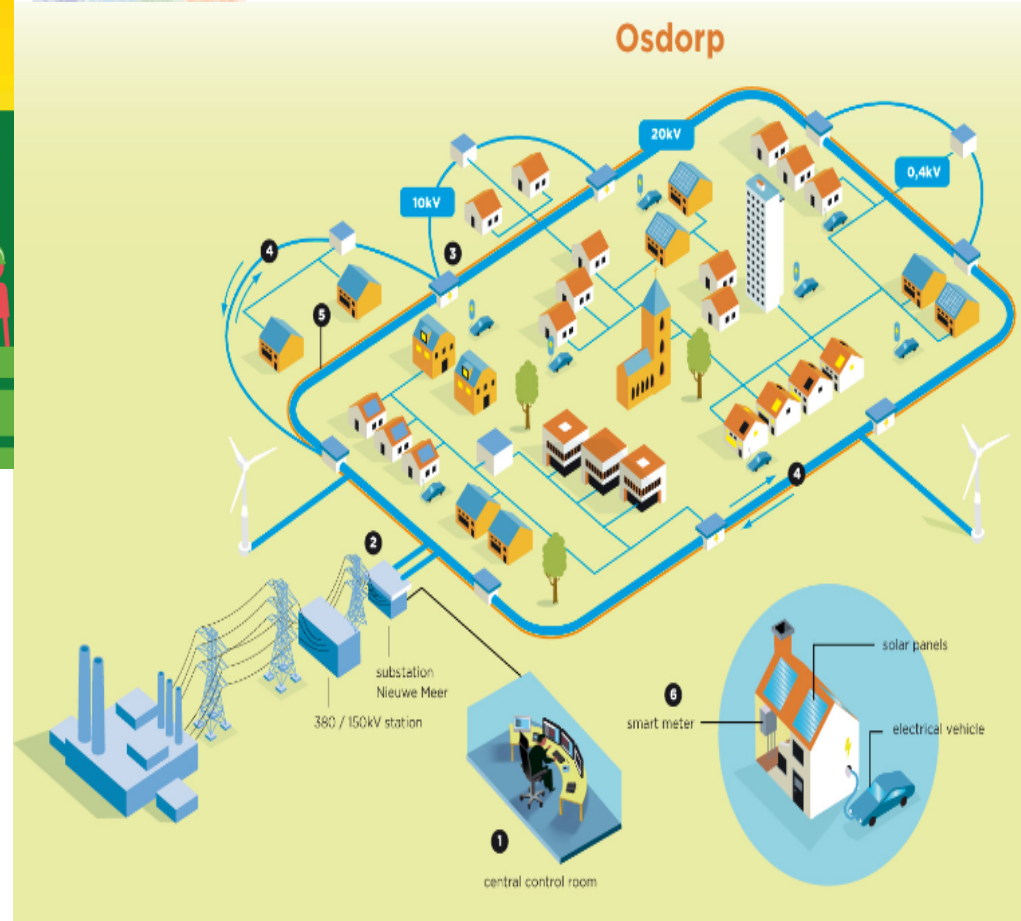- **end user centric approach**
- **facilitator – match maker**

HAPPINESS JUST AHEAD

Collective approach

ASC
partners
innovation

Central position citizens

Knowledge dissemination

Economic viable

Efficient use of resources

User needs

User experience

User-centric approach

User goals

User knowledge

connect

accelerate

strengthen

cities of the Amsterdam Metropolitan Area

partners companies + knowledge institutions

residents + users of the Amsterdam Metropolitan Area

test + learn

Amsterdam Smart City platform Amsterdam Metropolitan Area

accelerator

smart solutions
smart technologies
smart products
smart services
smart approaches

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Osdorp

20kV

10kV

0,4kV

substation
Nieuwe Meer

380 / 150kV station

solar panels

smart meter

electrical vehicle

central control room

CITY PROTOCOL

CITY zen
New urban energy

SMART CITY EMBASSY

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aeb
amsterdam

UNIVERSITEIT VAN AMSTERDAM

TUDelft
Technische Universiteit Delft

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water net

alliander

Westpoort Warmte

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Be active! Do things with passion or not at all

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CITY PROTOCOL

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Economic viability

PILOT — FULL SCALE

NO GO
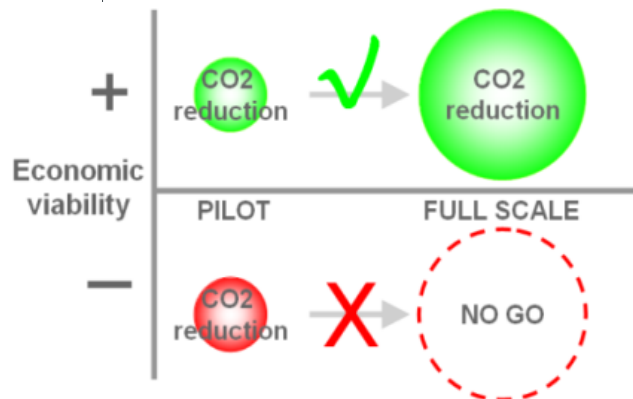
no open source

no open data

no knowledge dissemination

no active role

too much focussed on technology technical feasible

not

not financial feasible

not scalable

wrong role of government

- *no* vision – political leadership

no smart council

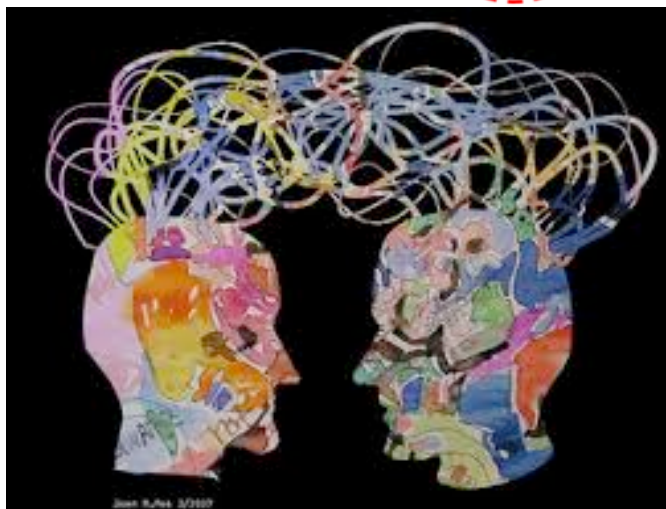- *no* holistic approach engagement

no citizen

wrong timing – pol.
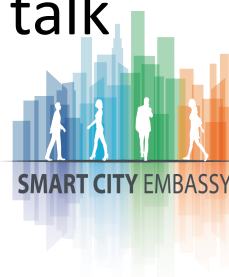
life cycle

Criteria to become a Smart City Project

Improving the efficiency of city operations economy

Growing the local

Contributing to quality of life for its citizens

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The City is an **Open** Platform, **Open** Data, **Open** Source

Have a **practical** look and approach on what **does work** in **particular situation** and **act accordingly**

Approach, products and services are **User Centric**

Shift Ownership vs **Availability**

Allow for **failure & uncertainty**