



Sustainable Urban Development in Europe Innovation & partnership in Smart Cities

DISCOVER YOUR WORLD

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Breda
The Netherlands



Breda

Breda



Steak
Frans
Timmermans

DIEREN HOREN NIET IN KOOIEN
TEKEN HET EUROPEES BURGERINITIATIEF
Ga naar stopdekooien.nl

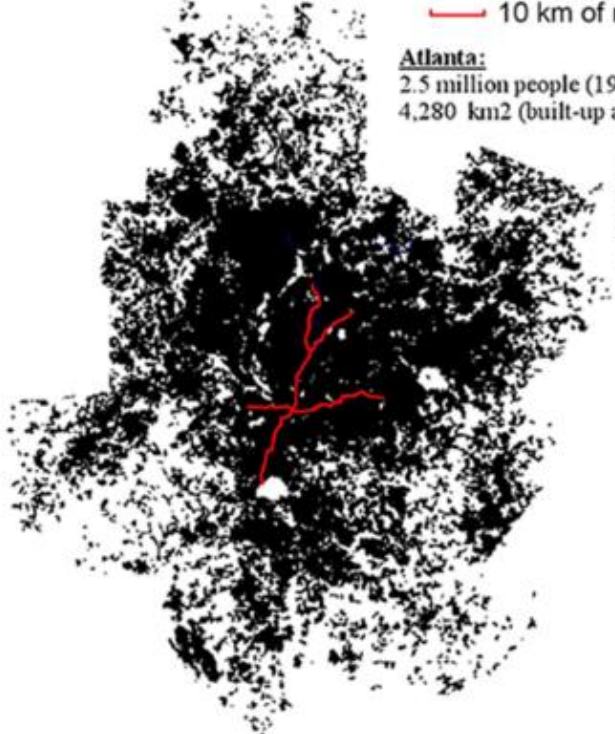
← UWZ 52 Rij 17 Stations-hal

What drives sustainable & smart urbanization in Europe?



The Built-up Area of Atlanta and Barcelona Represented at the Same Scale

— 10 km of metro line



Atlanta:
2.5 million people (1990)
4,280 km² (built-up area)

Transit in Atlanta VS Barcelona		
	Barcelona	Atlanta
Length of metro lines (km)	375	215
% of population within 600 m from a metro station	90%	4%
% of trips using metro	30%	4.50%
Length of metro line that would be required to serve 90% of Atlanta population (km)		2400
Number of stations required		2800

Barcelona:
2.8 million people (1990)
162 km² (built-up area)



The 5 key targets for the EU in 2020

1. Employment

- 75% of the 20-64 year-olds to be employed

2. R&D / innovation

- 3% of the EU's GDP (public and private combined) to be invested in R&D/innovation

3. Climate change / energy

- greenhouse gas emissions **20%** lower than 1990
- **20%** of energy from renewables
- **20%** increase in energy efficiency

20-20-20 targets

4. Education

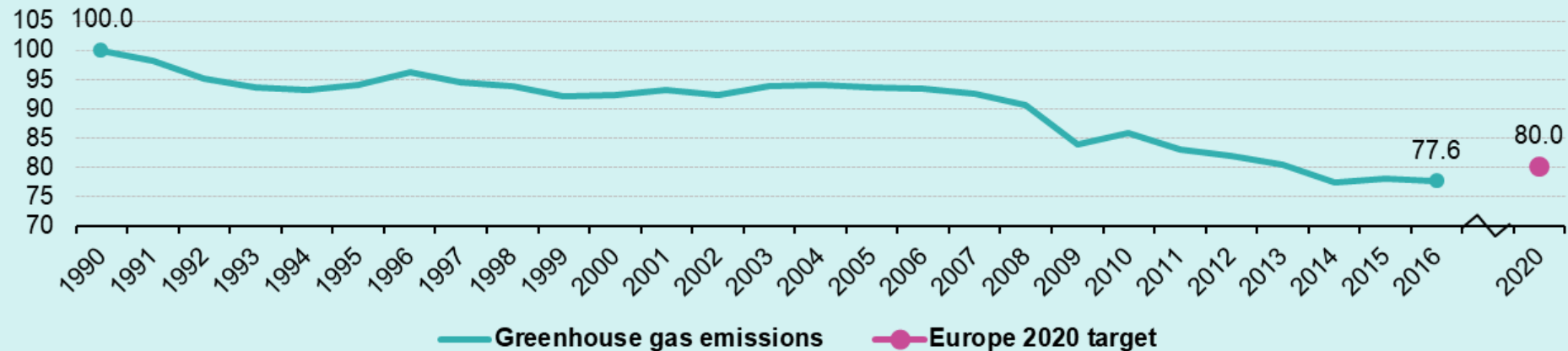
- Reducing school drop-out rates below 10%
- at least 40% of 30-34-year-olds completing third level education

5. Poverty / social exclusion

- at least 20 million fewer people in or at risk of poverty and social exclusion

Greenhouse gas emissions, EU-28, 1990-2016

(Index 1990 = 100)



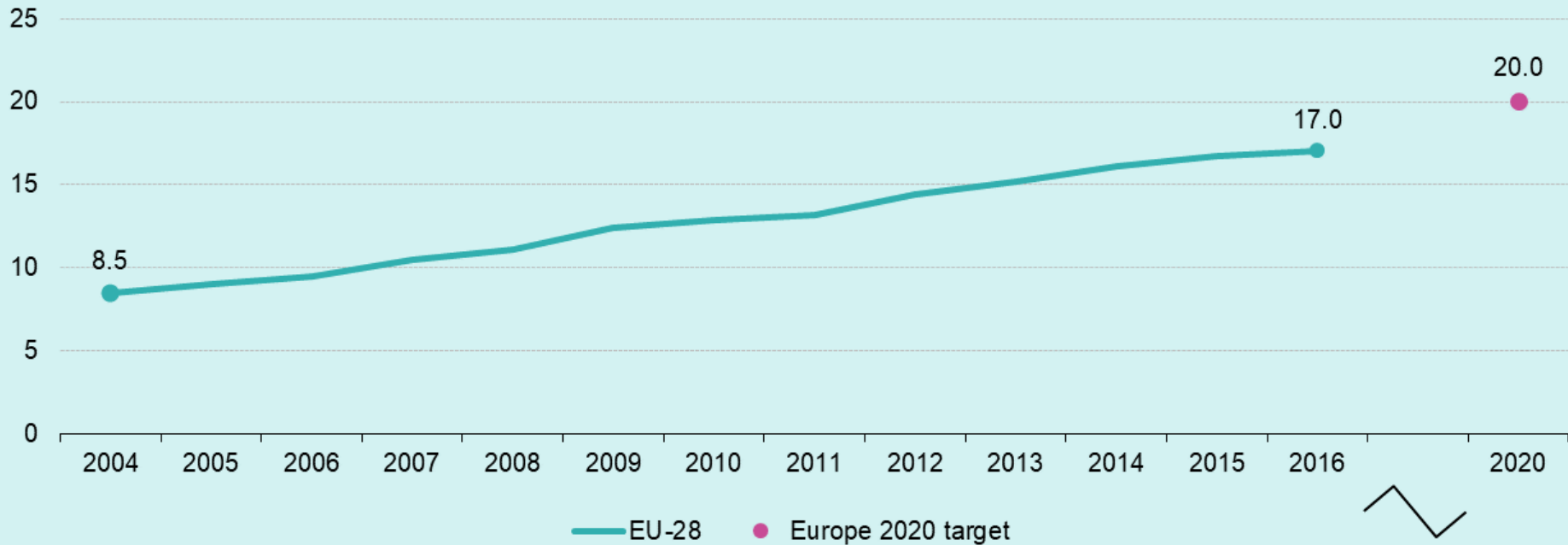
Note: total emissions, including international aviation and indirect CO₂, but excluding emissions from land use, land use change and forestry (LULUCF).

Source: European Environment Agency, Eurostat (online data code: t2020_30)

eurostat 

Share of renewable energy in gross final energy consumption, EU-28, 2004-2016

(%)



Source: Eurostat (online data code: t2020_31)

Targets for the Future:

- **Key EU targets for 2030:**
 - At least 40% cut in **greenhouse gas emissions** compared with 1990
 - At least 27% of total energy consumption from **renewable energy**
 - At least 27% increase in **energy efficiency**
- **Long-term goal**
 - By 2050, the EU aims to cut its emissions substantially – by 80-95% compared to 1990 levels as part of the efforts required by developed countries as a group.
 - Turning Europe into a highly energy efficient and low-carbon economy will also boost the economy, create jobs and strengthen Europe's competitiveness.

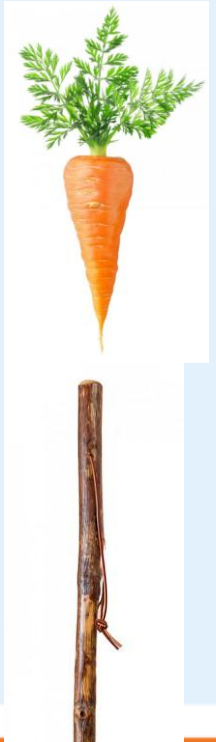
What can the EU do to achieve its goals?

1. Stimulation

- Provide guidelines & information (COM)
- Develop directives for member states to adopt (DIR)
- Cofinance projects or activities that are in line with EU policy

2. Enforcement

- Regulation that must be adopted by the member states and industries (REG)
- Financial enforcement (e.g. to keep the Euro under control)

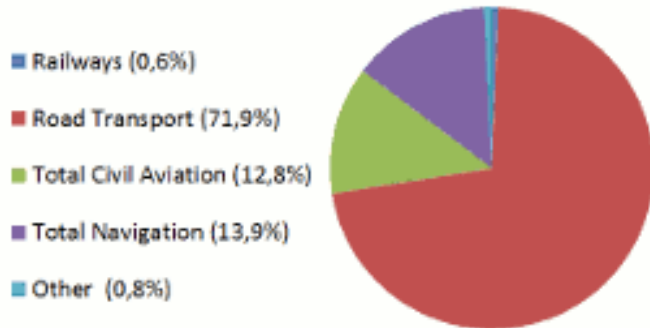


Examples of Stimulation

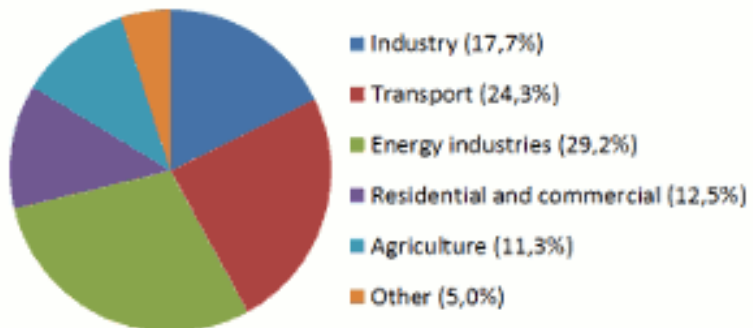
- European Innovation Partnership Smart Cities & Communities
- CIVITAS Research and Innovation projects for better urban mobility
- Facilitation of knowledge exchange, e.g. through the EU-India Urbanisation Partnership



EU GHG emissions from transport by mode

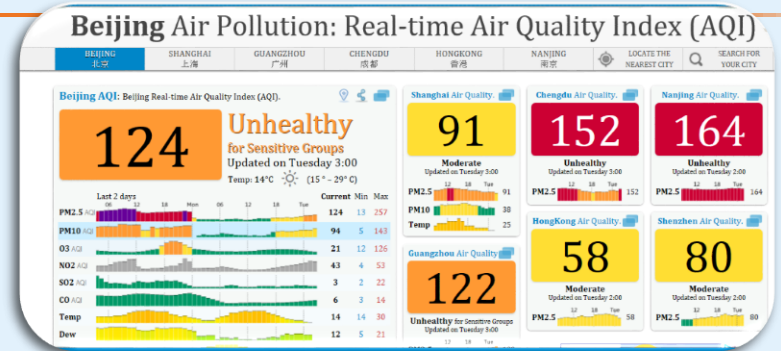


EU GHG emissions by sector

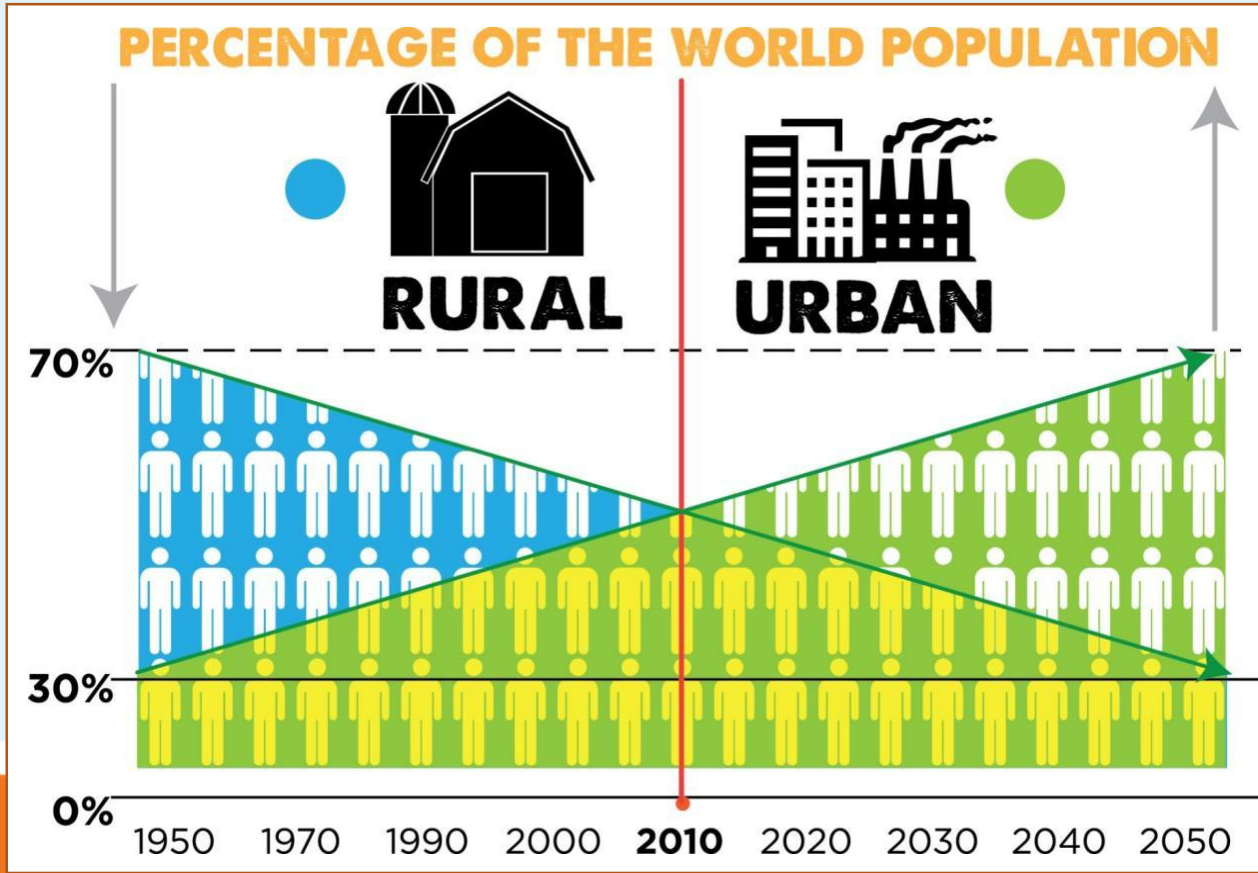


Examples of Enforcement

- EU Legislation on Air Quality
 - NO₂ 40 microgram/m³
 - Pm₁₀ 40 mg/m³
 - Pm_{2,5} 25 mg/m³
- EU Regulation on allowed vehicle emissions
 - Cars are responsible for 12% of all CO₂ emisisions in Europe
 - 2015 target: 130 grams CO₂/km (fleet average)
 - 2020 target: 95 grams CO₂/km (fleet average)



'The fight against climate change will be won or lost in urban areas'
(Covenant of Mayors)



Anyang - China

What is your Desired Future
for PUNE?



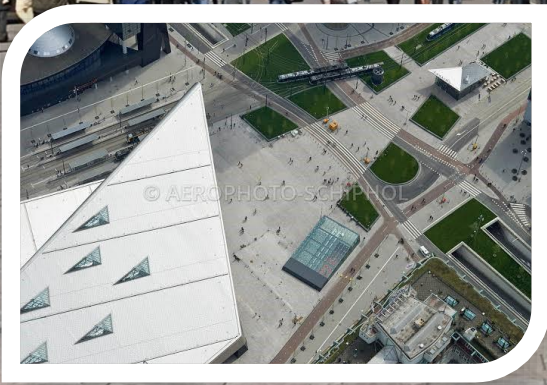
Mumbai – Colaba



Rotterdam – The Netherlands

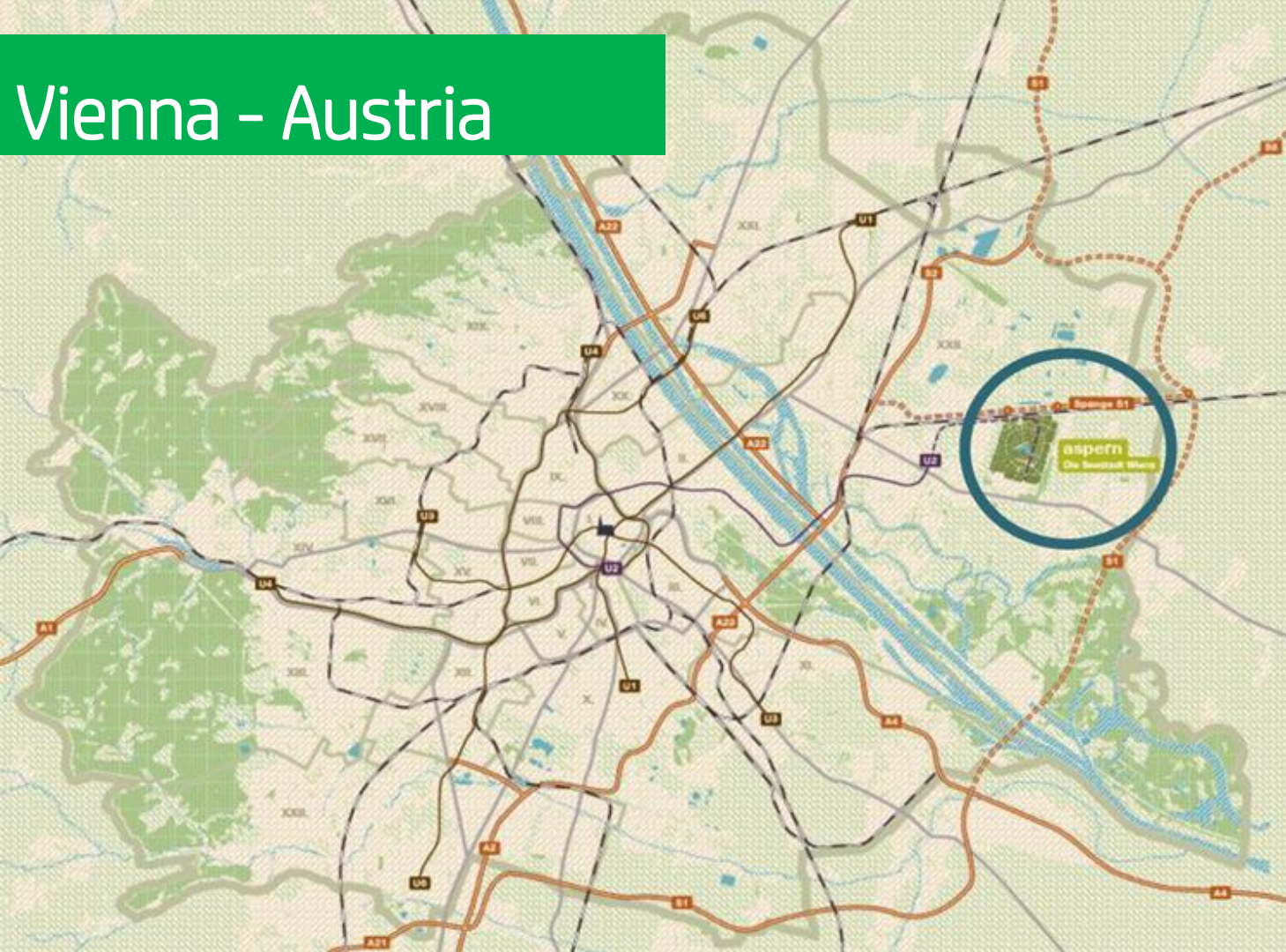


Rotterdam – The Netherlands



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Vienna - Austria



Vienna

- Vienna is the capital of Austria
- 1,8 mil inhabitants
- 4,500 inh/km²
- Nr 1 most liveable city in the world (Mercer)
- City built along the public transport network (Ministries, Football stadium, Offices, etc..)
- 1 euro per day year ticket for all public transport

SMART CITY FRAMEWORK STRATEGY

Quality of life

Social inclusion
Healthcare
Environment

Resources

Energy
Mobility
Infrastructure
Buildings



„ in 2050 we manage to have highest **quality of life** with **maximal protection of resources** **innovation** in all areas will enable this ambition.“

Innovation

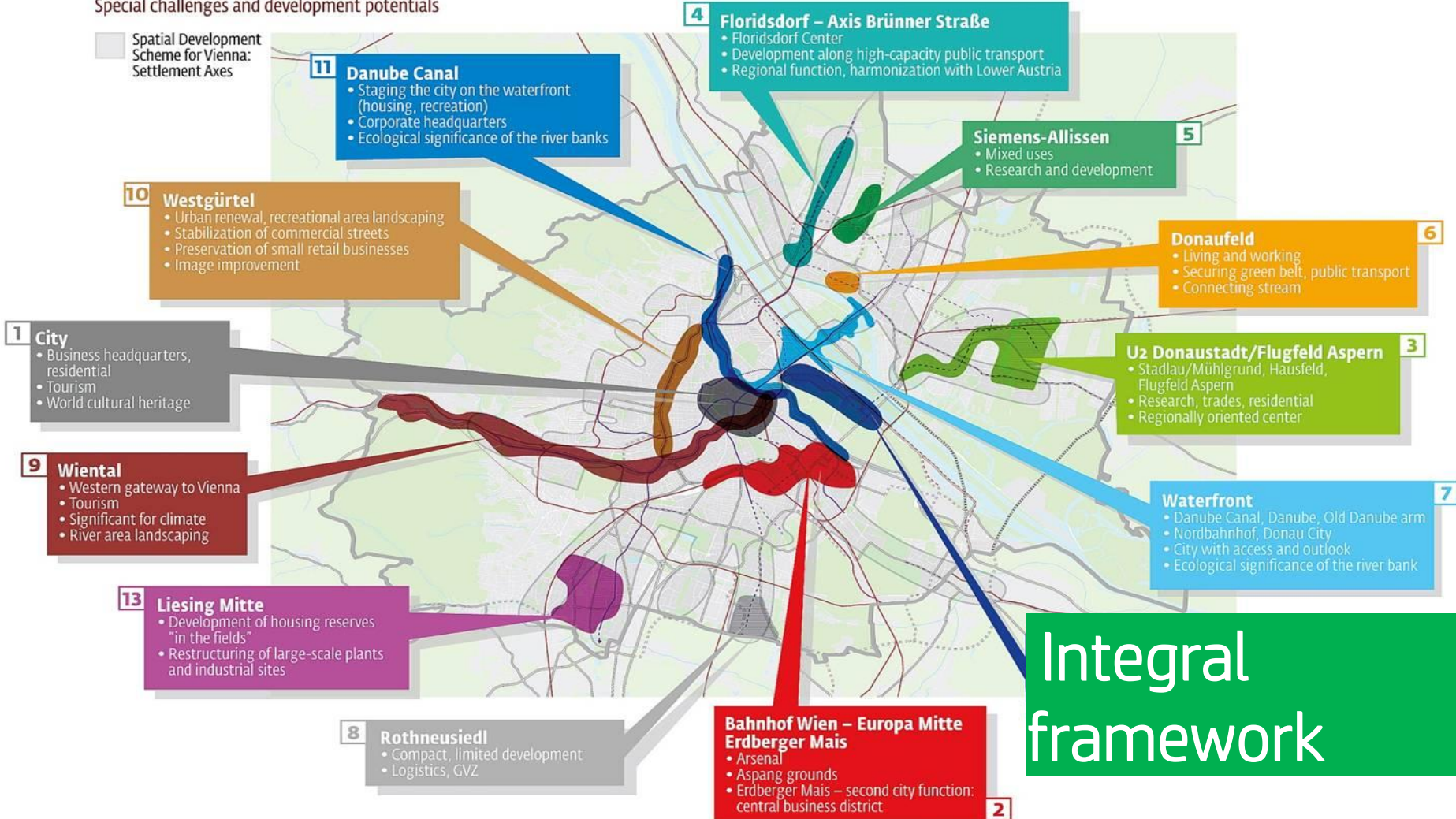
Education
Economy
Research, Technology
Innovation (RTI)

City of  Vienna

13 Key Areas of Action for Urban Development –

Special challenges and development potentials

Spatial Development Scheme for Vienna: Settlement Axes



Integral
framework



Participatory planning

0.5

1.0

1.5

2.0

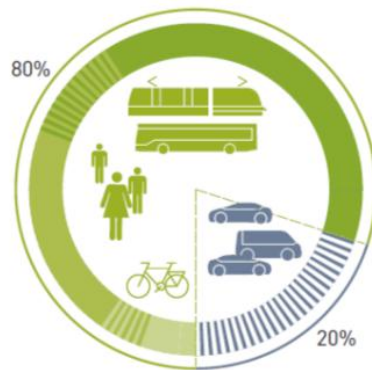
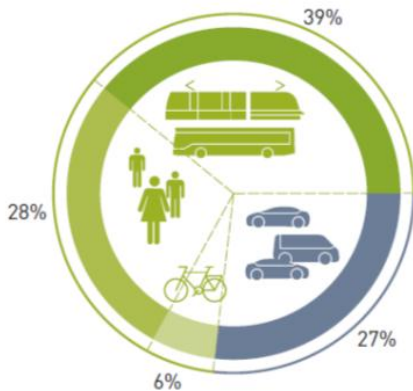
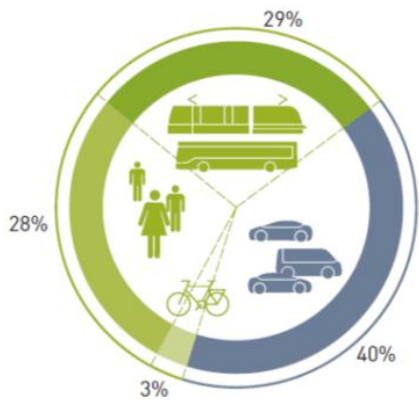
MILLION



1993

2012

2025



Vienna will grow, but t
resources won't



Aspern

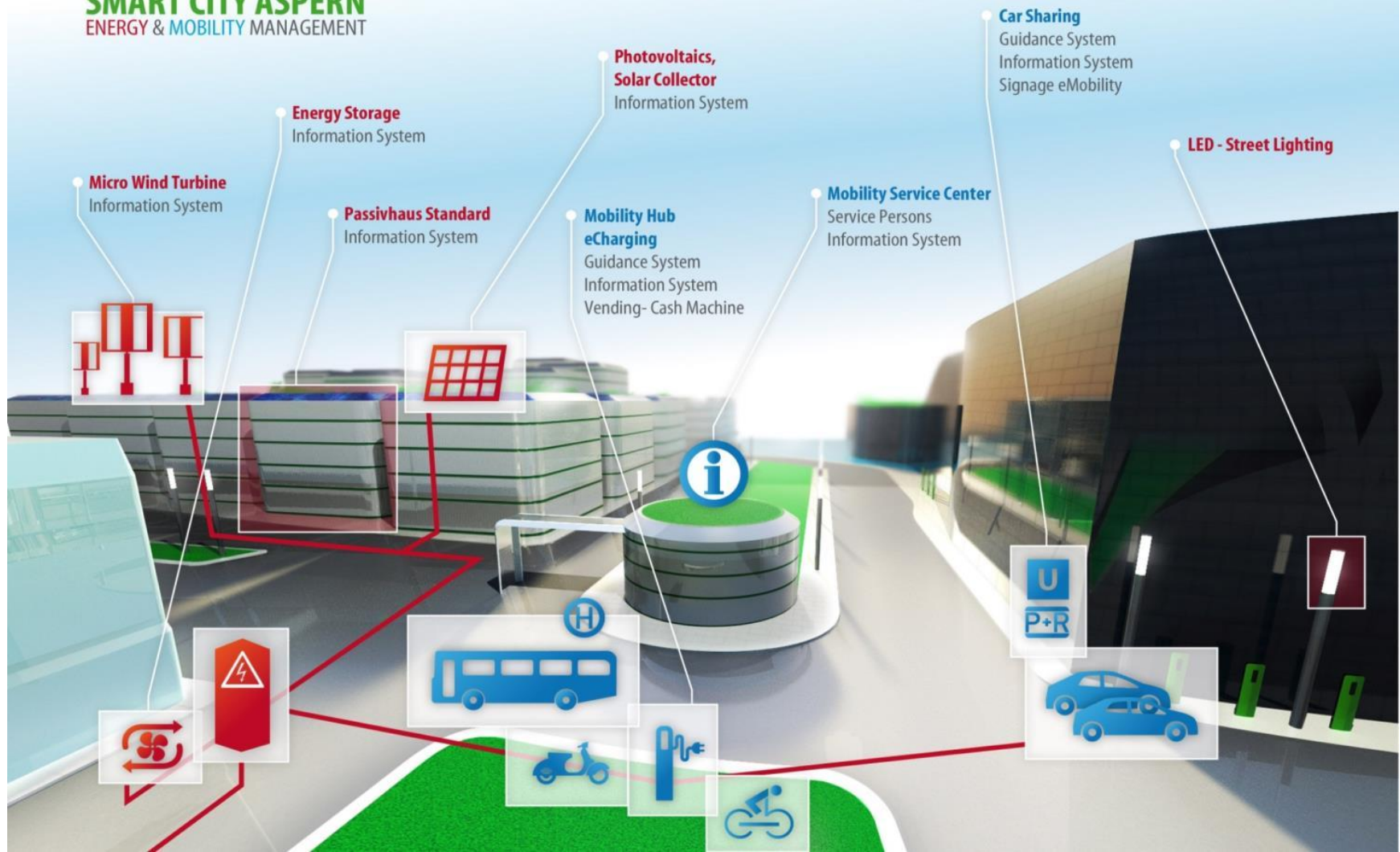
- 2010 - 2025
- 25,000 inhabitants
- 4,000 inh/km²
- 80% “social housing”
- Champion in modal shift
 - First metro extension
 - Then building
 - Lead to remarkable shift from car use to public transport use



Aspern: the biggest passive-house residential area in Europe

SMART CITY ASPERN

ENERGY & MOBILITY MANAGEMENT



Barcelona - Spain



Plaza Glories



Old / Existing

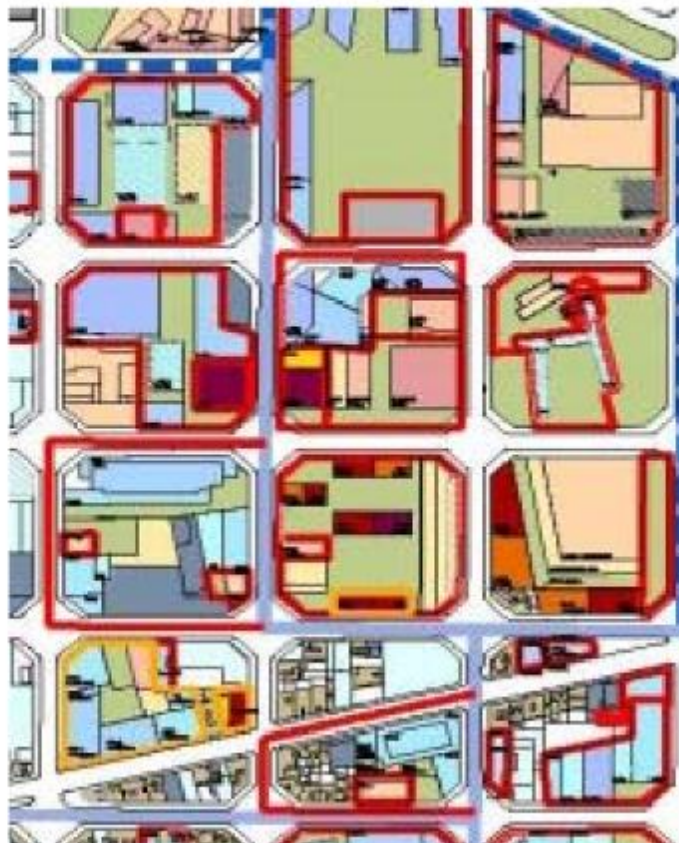


New Constructed

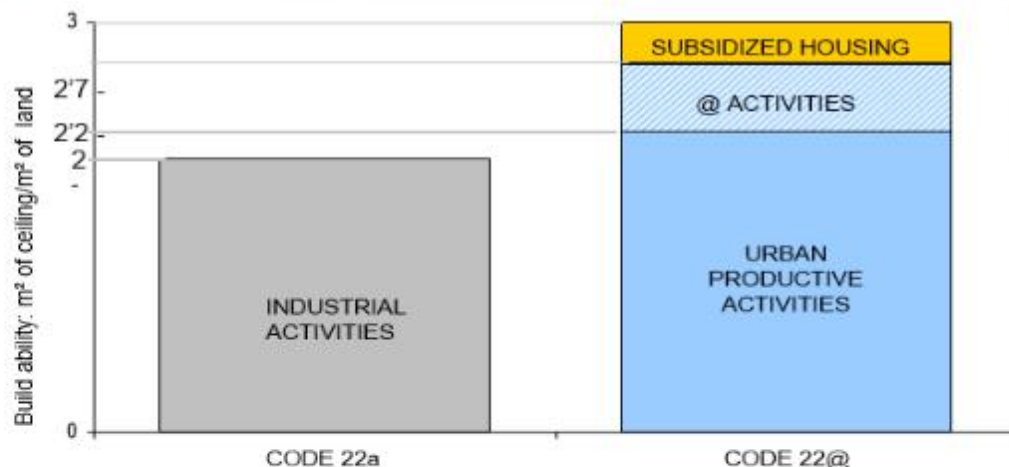


22@ District





Increase density:



Balance public and private benefits:

PRIVATE BENEFITS

- **More productive uses:**
22a → 22@
- **Higher density:**
2 → 2,2 / 2,7
- **Leadind edge infrastructures**

PUBLIC BENEFITS

- **Free cession of land:**
 - 10% for 7@ facilities
 - 10% for subsidized housing
 - 10% for green areas
 - Eventual opening of streets
- **Financing a part of the Special Infrastructure Plan**

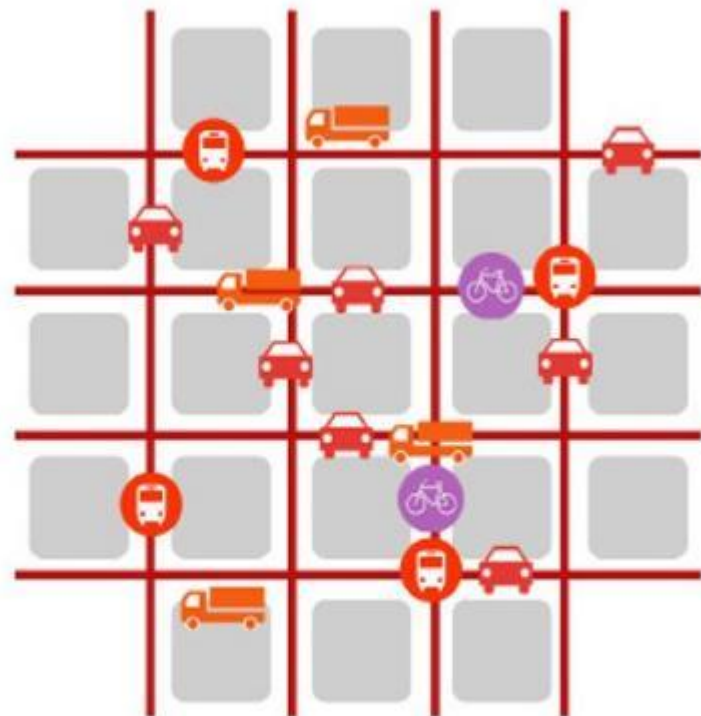
Higher Densities





Social Housing

Current Model



Superblocks Model



 PUBLIC TRANSPORT NETWORK

 BICYCLES MAIN NETWORK (BIKE LANE)

 BICYCLES SIGNPOSTS (REVERSE DIRECTION)

 FREE PASSAGE OF BICYCLES

 PRIVATE VEHICLE PASSING

 RESIDENTS VEHICLES

 URBAN SERVICES AND EMERGENCY

 DUM CARRIERS

 DUM PROXIMITY AREA

 ACCESS CONTROL

 BASIC TRAFFIC NETWORK

 SINGLE PLATFORM (PEDESTRIANS PRIORITY)

“SuperBlock 1.0”



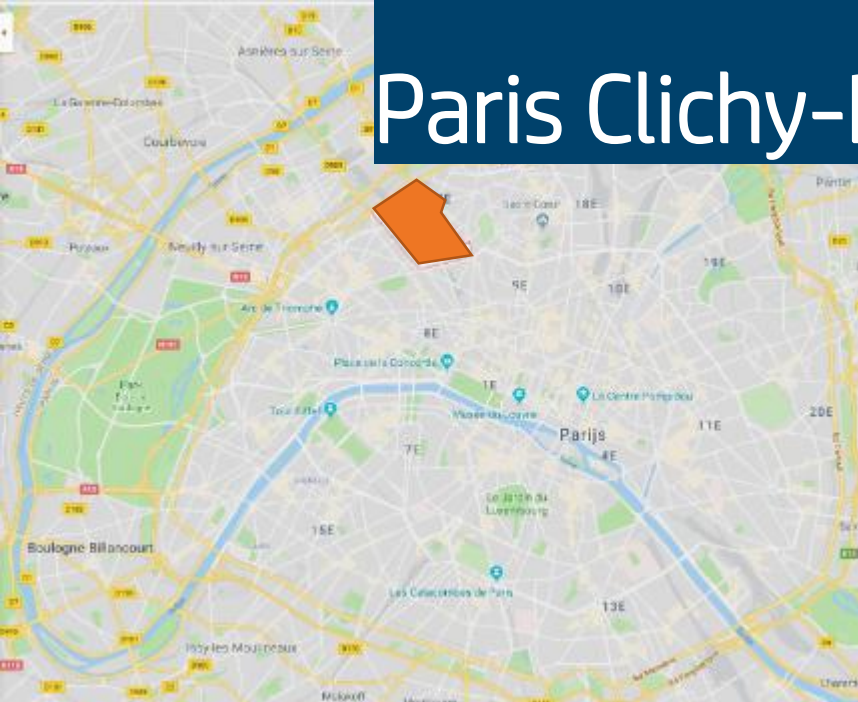
Green & Open Space

“SuperBlock 2.0”



Green & Open Space

Paris Clichy-Batignolles



- 54 hectares (10 ha park)
- 3,400 dwelling units
- ± 10,000 inhabitants
- ± 18,000 inh/Km² (incl park)
- 50% “social housing”, 20% capped rent housing and 30% market

- Low energy district
- Biodiversity and rainwater collection to prevent urban heat islands
- Smart garbage collection
- Connection to the Grand Paris Express
- Decentralised urban development

Clichy
Batignolles



MIXITÉ ET DIVERSITÉ

2017

Plafonds de ressources pour le logement social à Paris

Plafonds de revenu net imposable annuel au 1^{er} janvier 2017. Le plafond de ressources pris en compte pour l'attribution d'un logement social varie suivant le prêt qui a servi à le financer et la taille du ménage.

	PLAI Prêt Locatif Aide d'intégration	PLUS Prêt Locatif à Usage Social	PLS Prêt Locatif Social	PLI Prêt Locatif Intermédiaire
Personne seule	12 733 €	23 146 €	30 090 €	41 663 €
Couple	20 756 €	34 593 €	44 971 €	62 267 €
Couple avec 2 enfants	29 781 €	54 141 €	70 383 €	89 656 €
Couple avec 3 enfants	35 427 €	64 417 €	83 742 €	106 135 €

Les institutions qui contribuent au financement du programme de logements bénéficient, en contrepartie de cet apport, de droits de réservation. Ils sont dits « réservataires », et peuvent à ce titre proposer des candidatures sur les logements ainsi réservés. Concernant la ZAC Clichy-Batignolles, les droits de réservation se répartissent en moyenne de la sorte :

30 % à l'État, dont 5 % pour les fonctionnaires

40 % à la ville de Paris, répartis pour moitié entre le conseil municipal et le maire du 17^e

5 % à la région de Île de France

20 % aux collectivités (15 % employeurs et assimilés (ministères, établissements publics...))

Les candidats doivent être inscrits sur le fichier des demandeurs de logement social parisien. Les logements sont attribués en fin de par une commission d'allocation du logement (CAL), dont les membres sont désignés par le conseil d'administration du bailleur.

* Toute entreprise de plus de 20 salariés est autorisée, dès lors que le directeur Logement (ex. 1^{er} logement), des collectivités prévoient, sur employeurs de réserver un couple de logements sociaux pour loger leurs employés.

Montant des loyers au 1^{er} janvier 2017

PLAI Prêt Locatif Aide d'intégration	PLUS Prêt Locatif à Usage Social	PLS Prêt Locatif Social	LOYER INTERMÉDIAIRE
5,97 € le m ² par mois	6,71 € le m ² par mois	13,08 € le m ² par mois	16,83 € le m ² par mois









Recommendations & Mindset

- The Smart City requires a holistic approach.
- To become a smart city needs a kind of change management.
- Understand urban life primarily as a social, and only secondary as a technical and logistic problem. You have to involve the people.
- Build strong partnerships between the city, the research sector and the industrial sector.
- Aiming for sustainability must include policies to reduce single car use in cities („the elephant in the room“)
- PDCA: Plan – Do – Check – Act → bridge the gap between plan and reality.



That's all Folks!

Thank You!

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