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OSLO, MAY 19TH, 2021

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100 CLIMATE-NEUTRAL CITIES BY 2030

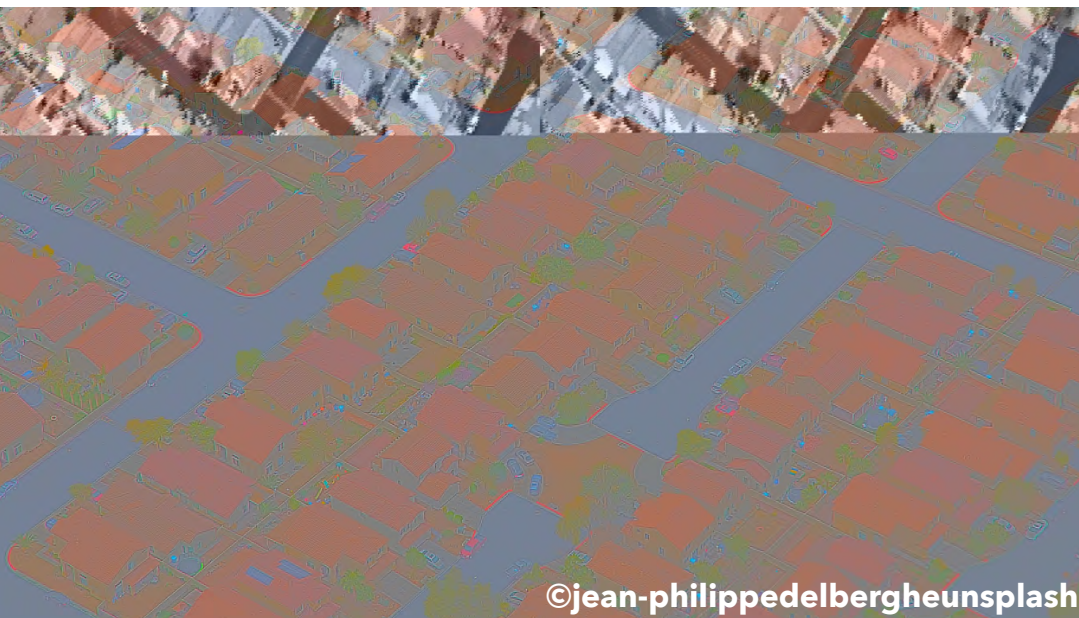
MANAGING AND PLANNING THE MAJOR URBAN TRANSITION

THE METROPOLITAN CENTURY

Urbanisation to grow from 50% to 85%

Growth Management OR Growth Mis-Management?

Managed Growth as an Opportunity for Transformation



Paris Agreement and Agenda 2030

European Green Deal: Europe first climate neutral continent by 2050, more ambitious target for 2030

AGGLOMERATION

PHASE 2



EXTERNALITIES FOR REGIONS

- High Costs for Housing
- Infrastructure Investment Demand
- Two-Tier Labor Market
- Social Cohesion and Integration
- Sprawl, Congestion, Pollution, Inflation
- Opposition to Urban Growth

CITIES OCCUPY

2% of the planet's landmass

but consume over 65% of the world's energy

and account for more than 70% of the global CO2 emission



INCLUSION



LIVABILITY



CLIMATE-NEUTRALITY









FROM VISION TO MISSION

PUTTING A MAN ON THE MOON AGAIN..

MISSION AREAS:

Soil health and food



Cancer



Climate-neutral
and smart cities



Healthy oceans,
seas, coastal and
inland waters



Adaptation to climate
change, including
societal transformation



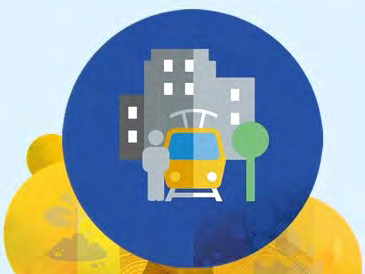
#HorizonEU



European
Commission

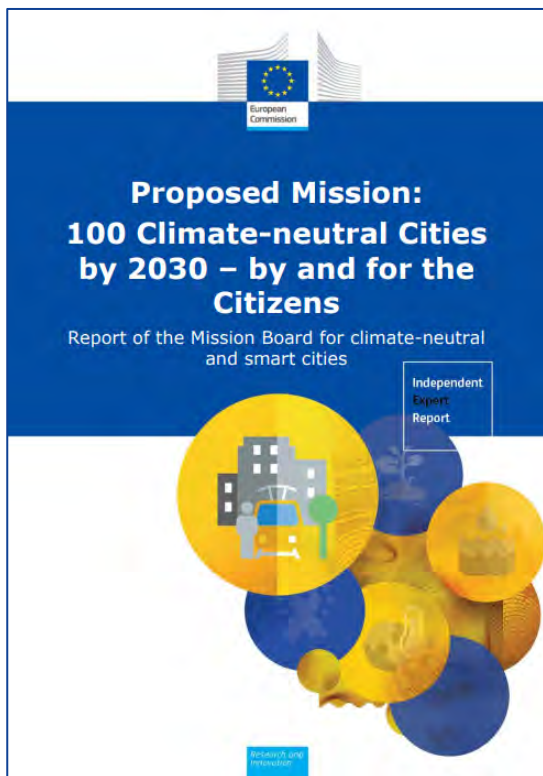
- Be **bold and inspirational**, with wide societal relevance;
- Indicate a **clear direction**: targeted, measurable and time-bound;
- Be **ambitious but realistic** research and innovation actions;
- Spark **innovation across disciplines**, sectors and actors;
- Be based on a **bottom-up approach** of multiple solutions
- **Engage citizens** in co-designing, co-creating, co-implementing and co-assessing missions



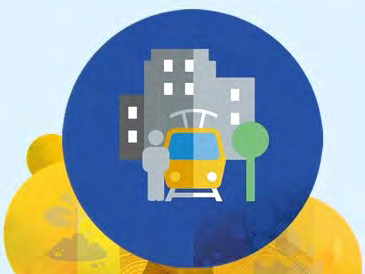


Proposed mission

100 CLIMATE-NEUTRAL CITIES BY 2030 - BY AND FOR THE CITIZENS



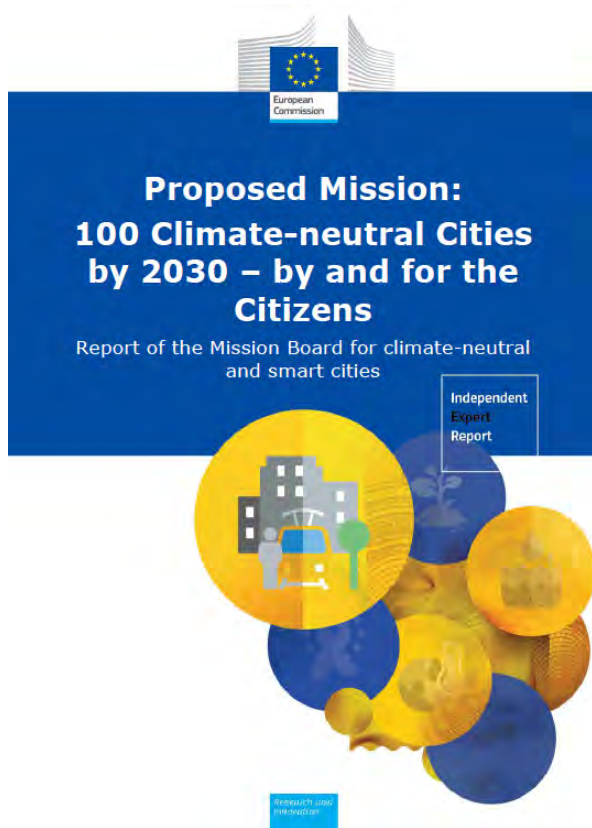
“Support, promote and showcase 100 European cities in their systemic transformation towards climate neutrality by 2030 and make these cities into experimentation and innovation hubs for all cities, thus leading on the European Green Deal and on Europe’s efforts to become climate neutral by 2050.”



Elements of the proposed mission

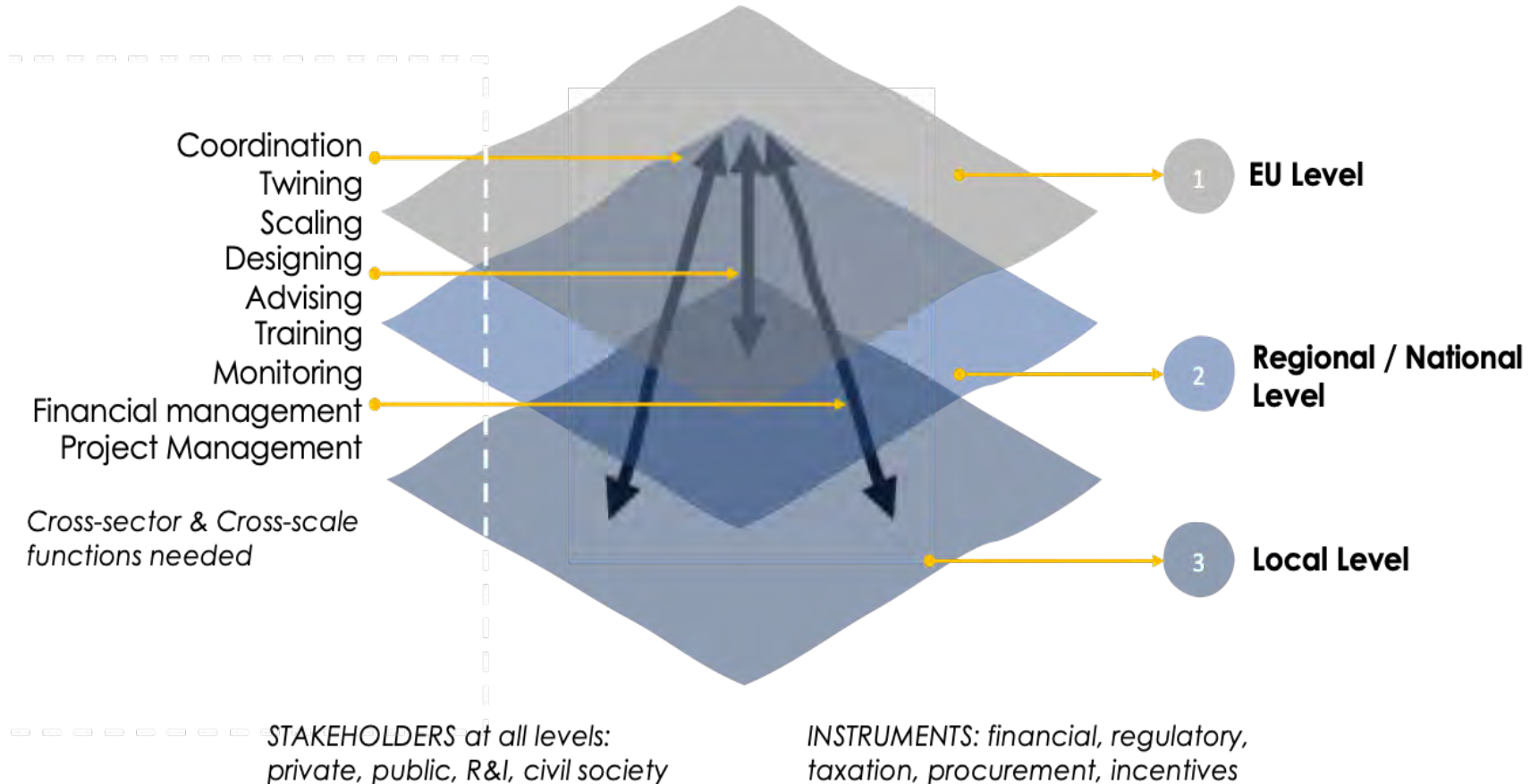
- **A new model of city governance** based on three principles:
 - *A holistic approach fostering innovation and deployment*
 - *A matrix of integrated and multi-level governance*
 - *A deep and continuous collaboration between all stakeholders*
- **A new role for citizens** in their different roles as political actors, users, producers, consumers or owners of buildings and transport means. *At least 1% of the funding granted by the EU to cities should be devoted to support citizens for the implementation of climate actions*
- **A Climate City Contract** as a new delivery mechanism signed by the Mayor, by the regional and national government and by the Commission
- **A new integrated form of funding and financing:** Lending & Blending Facility for Climate Cities, up to 10% of MMF to be geared towards the objective of the mission, structural and investment funds, EIB, “mission label”, green budgeting

#MissionCities



- Systemic transformation
- A new model of city governance
- A new role for the citizens
- Climate City Contract as the delivery mechanism
- A new role for innovation, experimentation, and learning
- A new form of funding and financing:

#MissionCities



Which instruments?

Financial
instrument
s

Taxation

Regulation

Research
&
Innovation

Procurem
ent

Data
managem
ent

Cross-
sectoral
governan
ce

Citizen
participati
on



The selection process

APPLICATION PROCESS

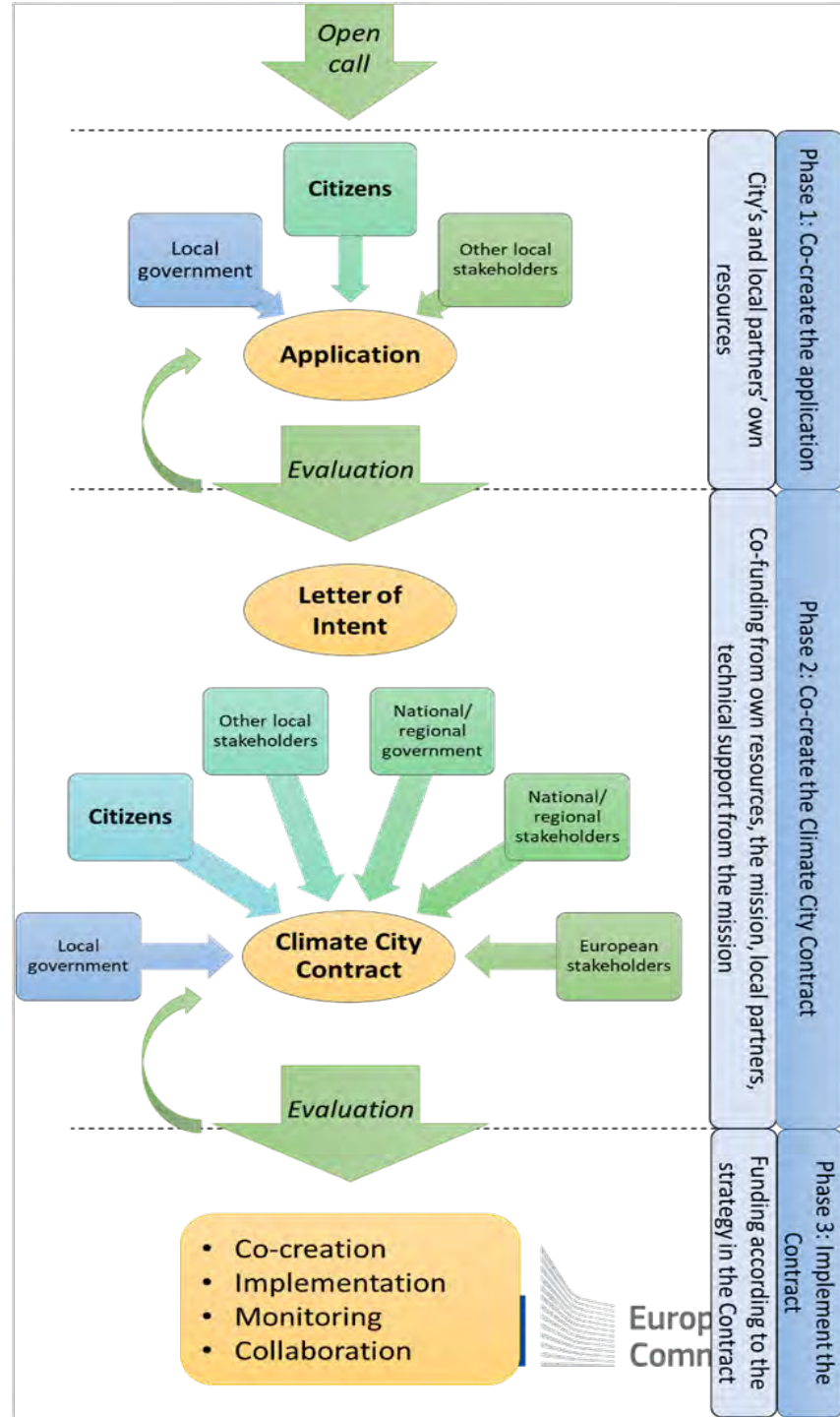
- Open, flexible and inclusive
- Based on co-creation

SELECTION OF CITIES

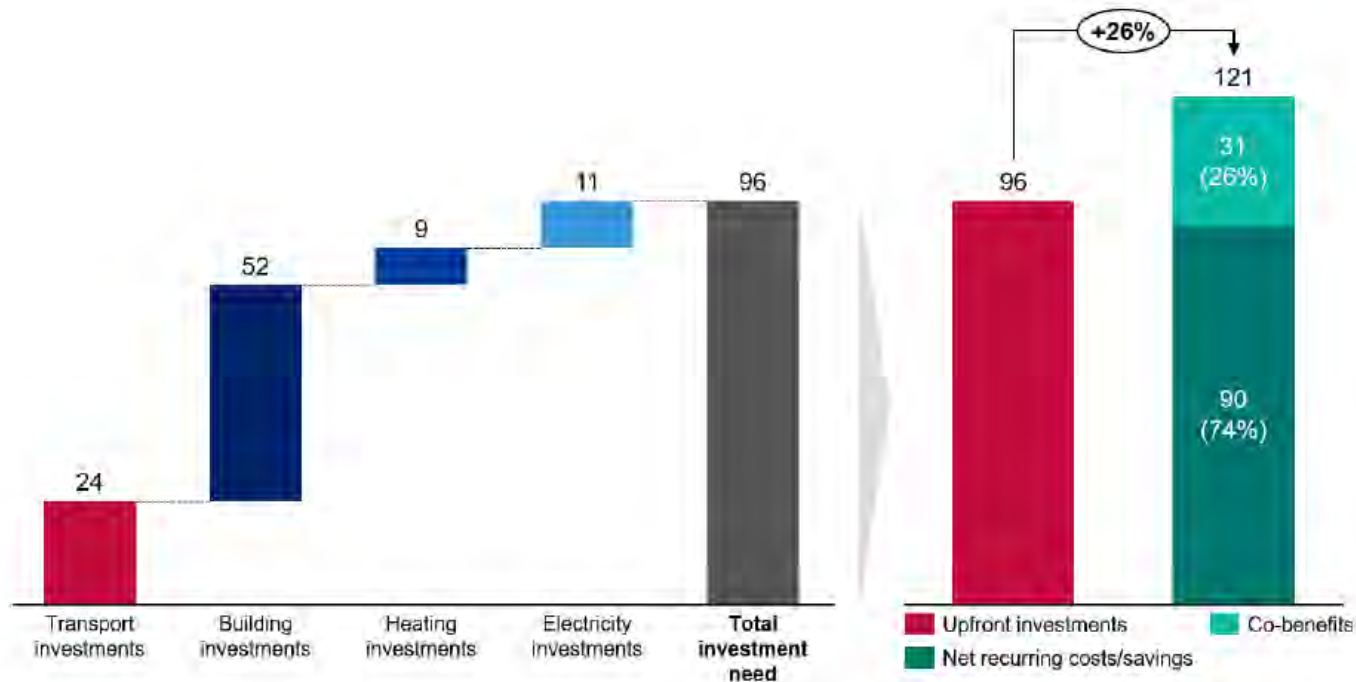
- Cities of all sizes, contexts and types
- Wide and balanced geographical coverage
- Commitment to engage the citizens in all phases

MONITORING PROGRESS

- Endpoint: mitigate and offset all GHG emissions
- Quantitative and qualitative indicators

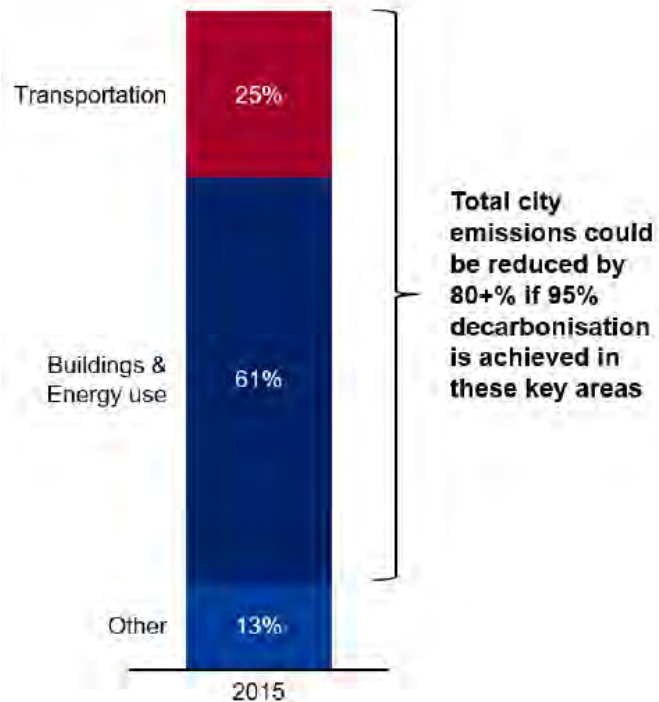


Financial needs



MATERIAL ECONOMICS

Estimating the total investment need for decarbonizing 100 European cities by 2030



Transportation

- Reduced passenger transportation need
- Increased car pooling
- Reduced & optimized logistics
- Shift to public & non-motorised transport
- Electrification of passenger cars
- Electrification of public transport
- Electrification of freight transport

Buildings & Energy use

- New buildings highly energy efficient
- Building energy efficiency renovations
- Efficient lighting & appliances
- Decarbonising heating
- Shift to renewable electricity

Who should invest?

MFF < 10%

PUBLIC INVESTMENTS

Local/national/EU budget
Grants (direct subsidies)
Investment loans (subsidized)
Framework loans (subsidized)
Equity funds (i.e. Sovereign)
Public Procurement
Guarantees

PRIVATE INVESTMENTS

COMPANIES:

Sustainable funds
Private equity funds
Venture risk funding
Guarantees
Priv. companies investm.
(CAPEX or Equity)

CITIZENS:

Investment in private
assets
Crowd-funding
Donations
Philanthropy

HYBRID

Private-Public Investment Vehicle

Source: Lumberras, 2020

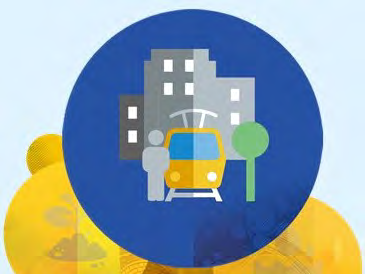
Monitoring & KPIs

Quantitative KPIs

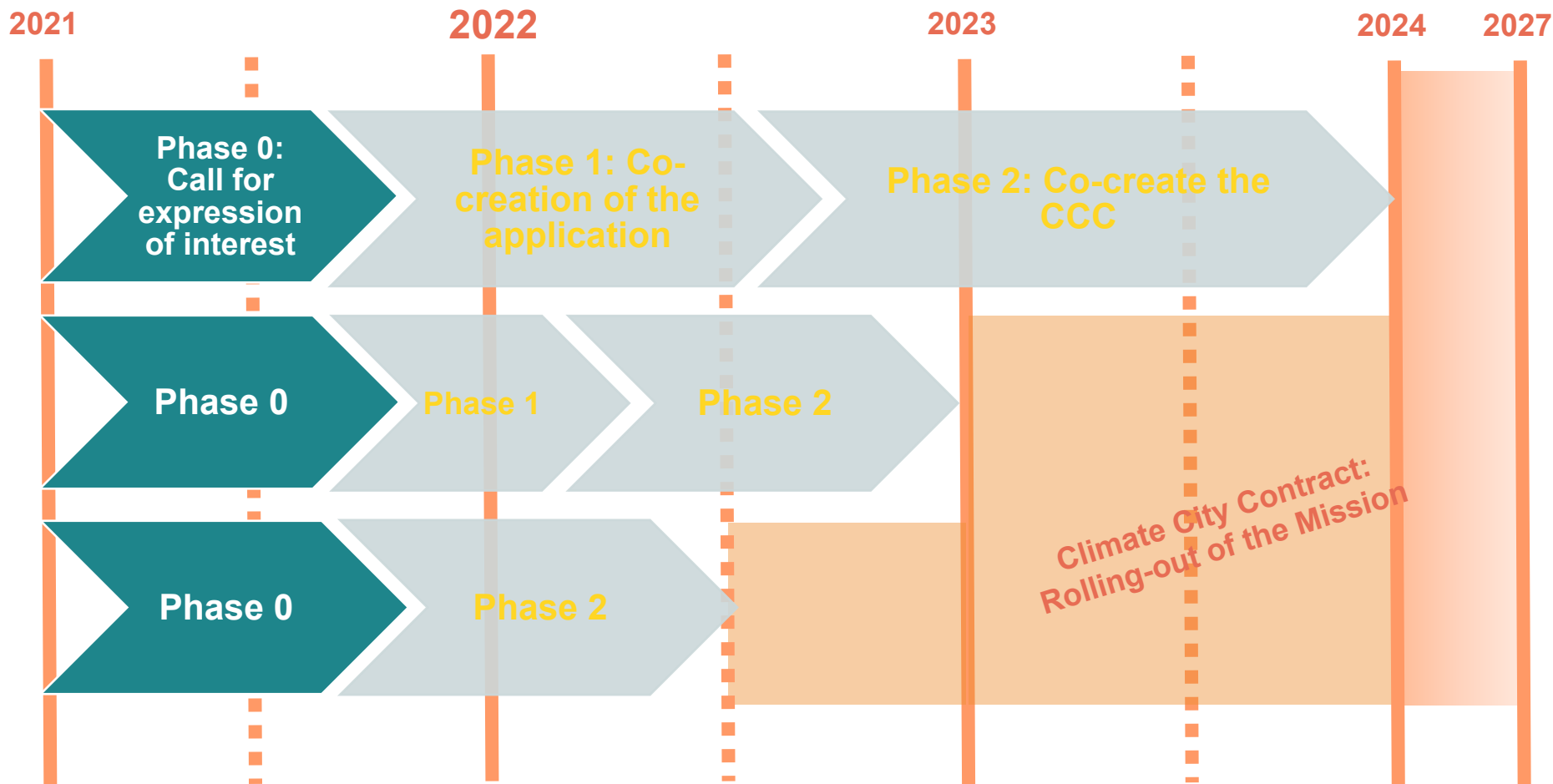
- **Scope 1+2**
- **Scope 3 by 2030**

Qualitative KPIs

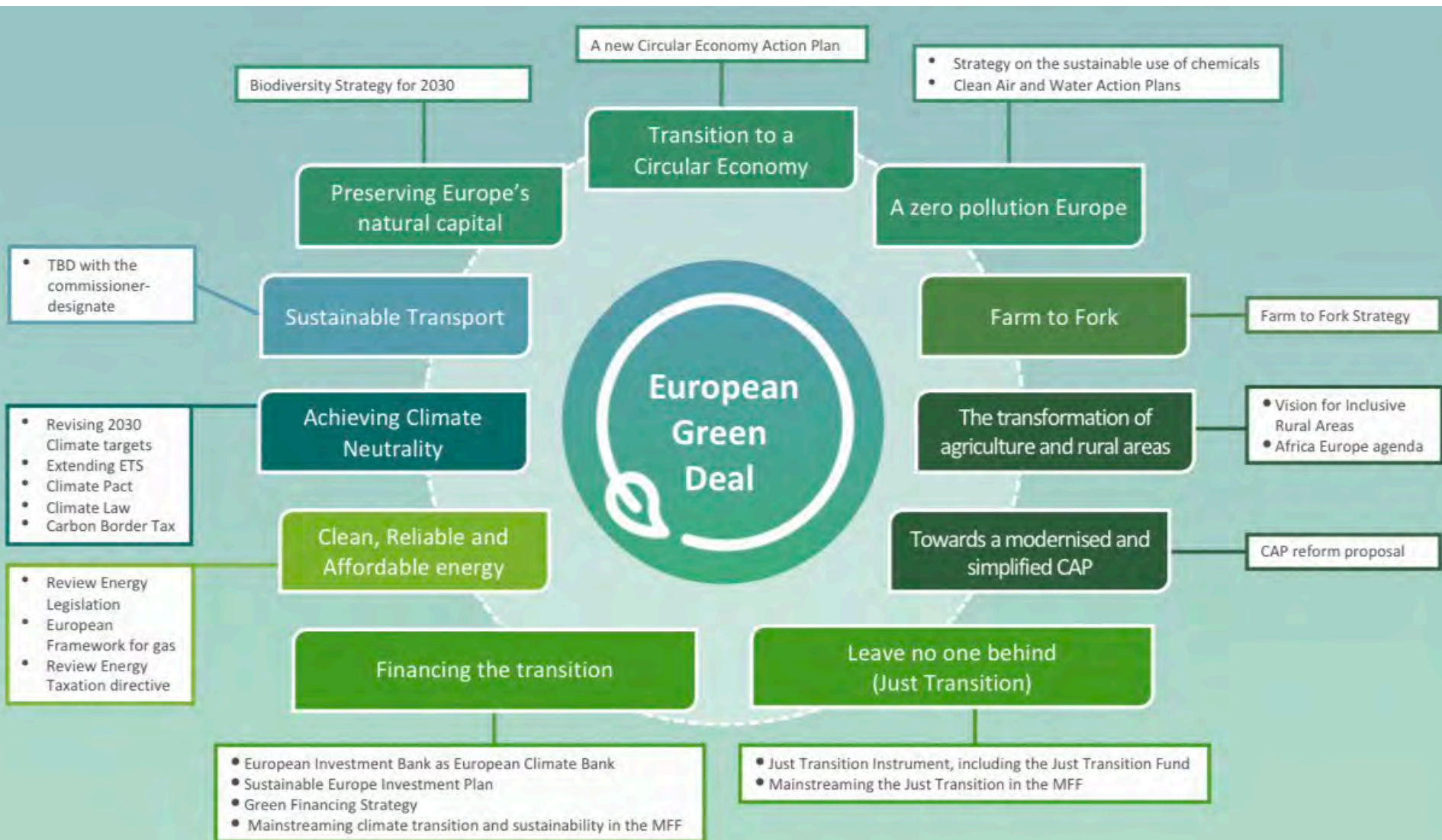
- **Selected Decarbonization Pathway**
- **Citizen Engagement**
- **Modal Split, Energy Use, Green Energy**
- **Green Investment p.c.**



Mission Implementation - by preparedness



Green Deal Calls...



MANAGING THE TRANSITION

PUTTING A MAN ON THE MOON AGAIN...



USING NEW URBAN QUARTERS AS

An aerial photograph of a dense urban area, likely Vienna, showing a mix of historic and modern buildings. A large, irregularly shaped area in the center is highlighted with white 3D architectural models of buildings and green spaces, representing a proposed urban development. Three red arrows originate from the top text: one points to a railway corridor on the left, another points directly into the highlighted development area, and a third points to a green park area to the right of the development.

AN OPPORTUNITY FOR TRANSFORMATION & REPAIR

©christianfürthner

TRANSFORMING HISTORICAL NEIGHBORHOODS



CHALLENGES

REGIONAL DYNAMICS

- Lack of Scale and Critical Mass needed to Succeed
- Coordination and Capacity Problems
- Internal Competition, Waste, fragmented Efforts
- Incoherent or Conflicting Messages
- Missed Opportunities



CHALLENGES I

MANAGED SYSTEMIC TRANSITIONS

Retrofitting: From Corporate to Individual

Energy: From Local to Systemic

Transforming Mobility: From Infrastructures to Services

Economic Focus: From Growth to Circularity

Functional Entities: From City to Region



CHALLENGES II

MANAGED SYSTEMIC TRANSITIONS

Cultural Shift: From Consultation to Collaboration/Action - From Antagonism to Sharing

Governance: From State as a Provider to Facilitator; From Institutions to Networks

Leadership: From Decision Maker to Stakeholder-Manager (to Eco-System-Management)

Financing: From Pilot to Scale

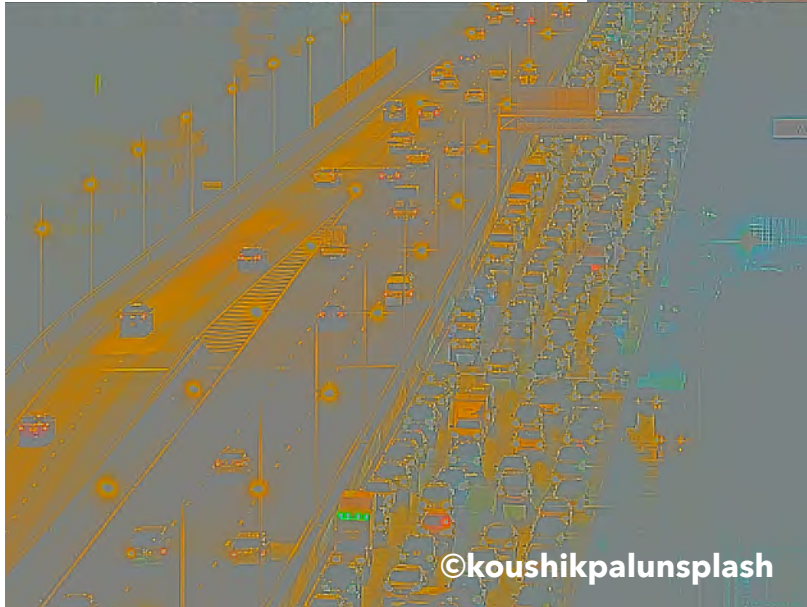
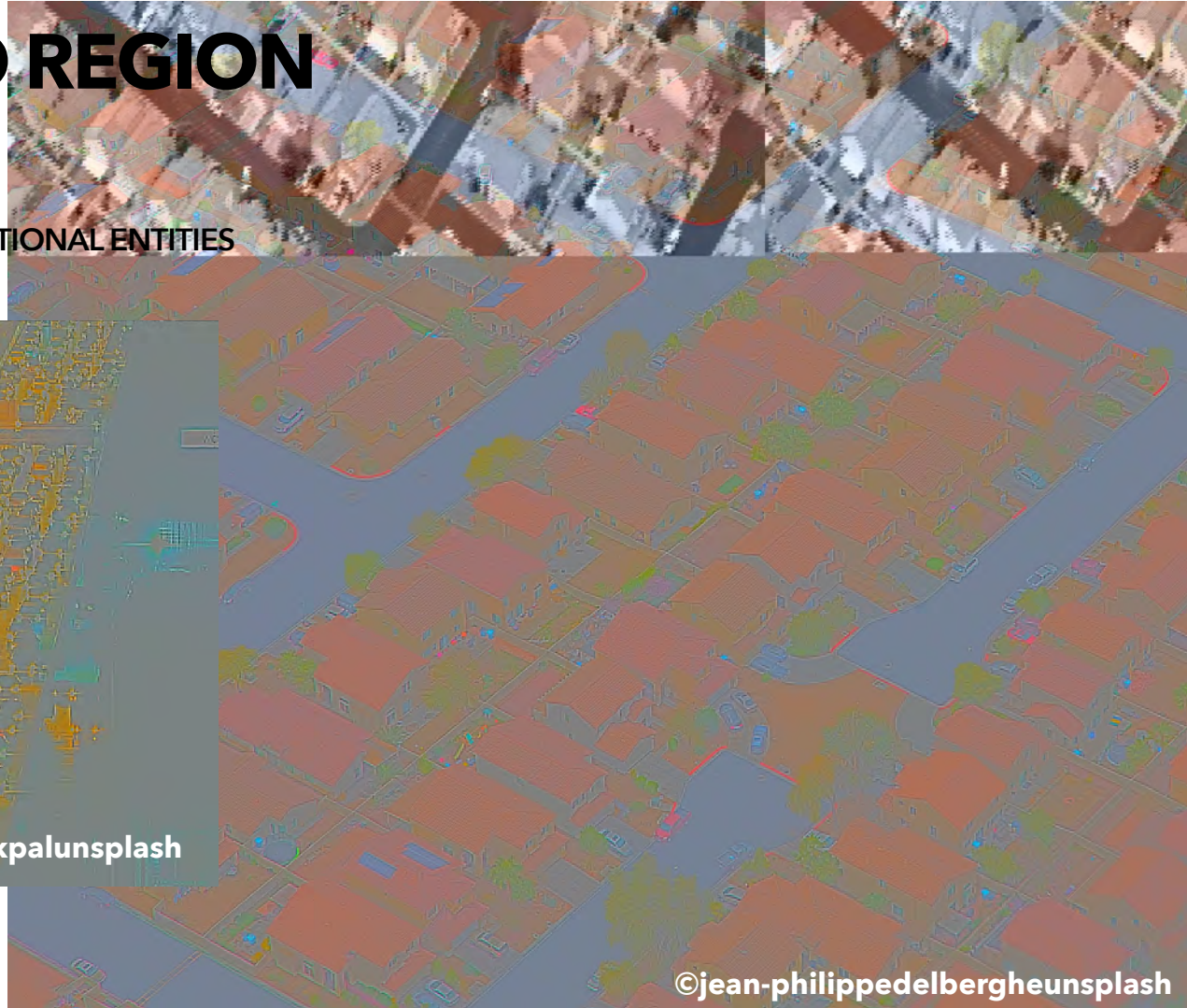


A NEW PARADIGM

FROM CITY TO REGION

LEAVING ANTAGONISM BEHIND

UNDERSTANDING REGIONS AS FUNCTIONAL ENTITIES



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A NEW PARADIGM

Thinking out of the Box

Stepping out of Silo-Politics

Integrated urban and regional
Planning - the new Leipzig Charta

New Culture of Cooperation and
Collaboration

Scaling Up: Partnering for
Bankability



A NEW PARADIGM

Innovative Financing & Legal Instruments

Systemic Innovation: From Closed to Open

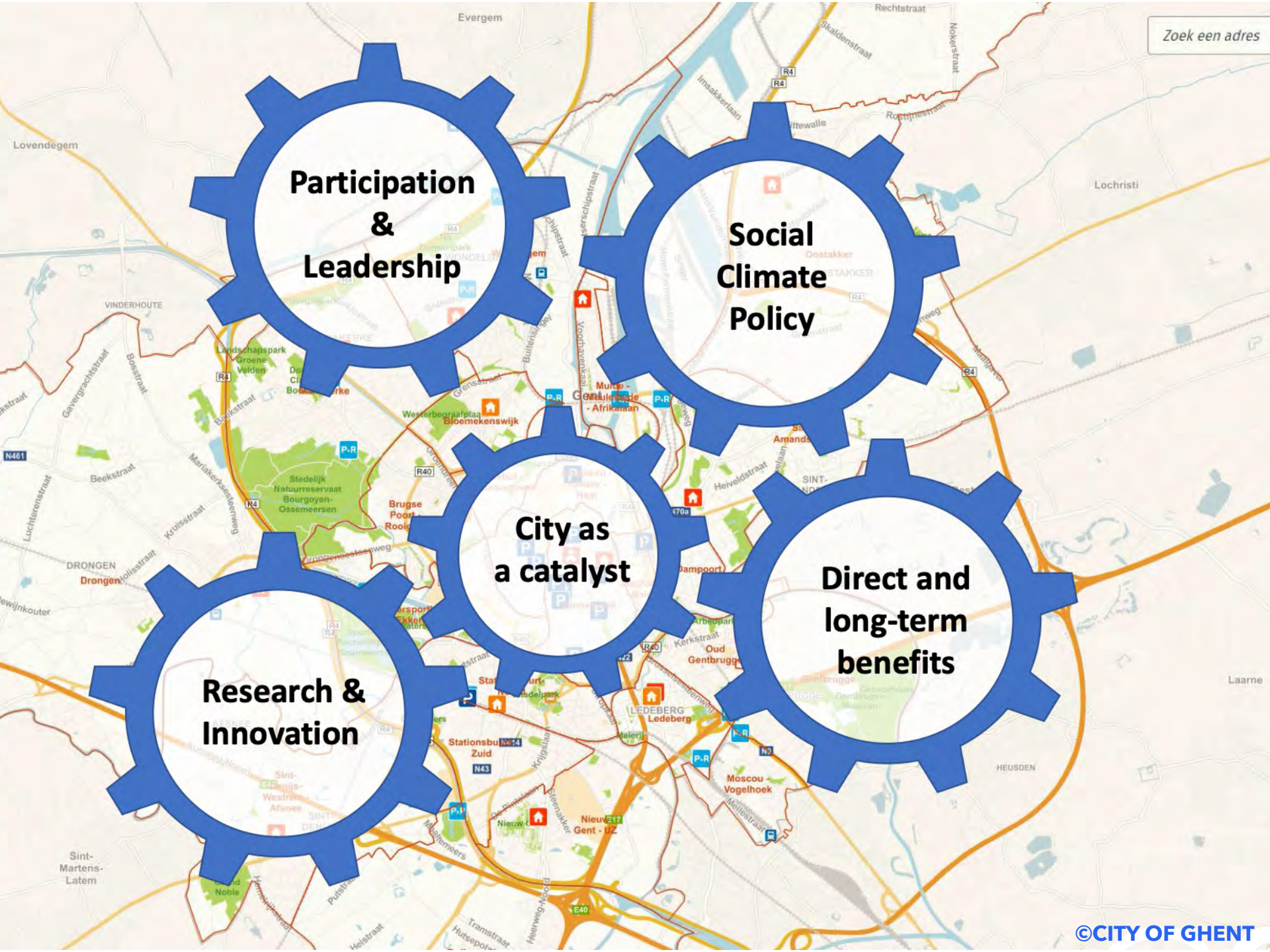
Technical Innovation

Social Innovation

Sustainable Entrepreneurship

Governance Innovation & a new Role for Cities and Regions





**Participation
&
Leadership**

**Social
Climate
Policy**

**City as
a catalyst**

**Direct and
long-term
benefits**

**Research &
Innovation**

THE FUTURE
DEPENDS ON WHAT WE DO
IN THE PRESENT

Mahatma Gandhi

STATE OF PLAY

STATE OF PLAY

INNOVATION PLATFORMS

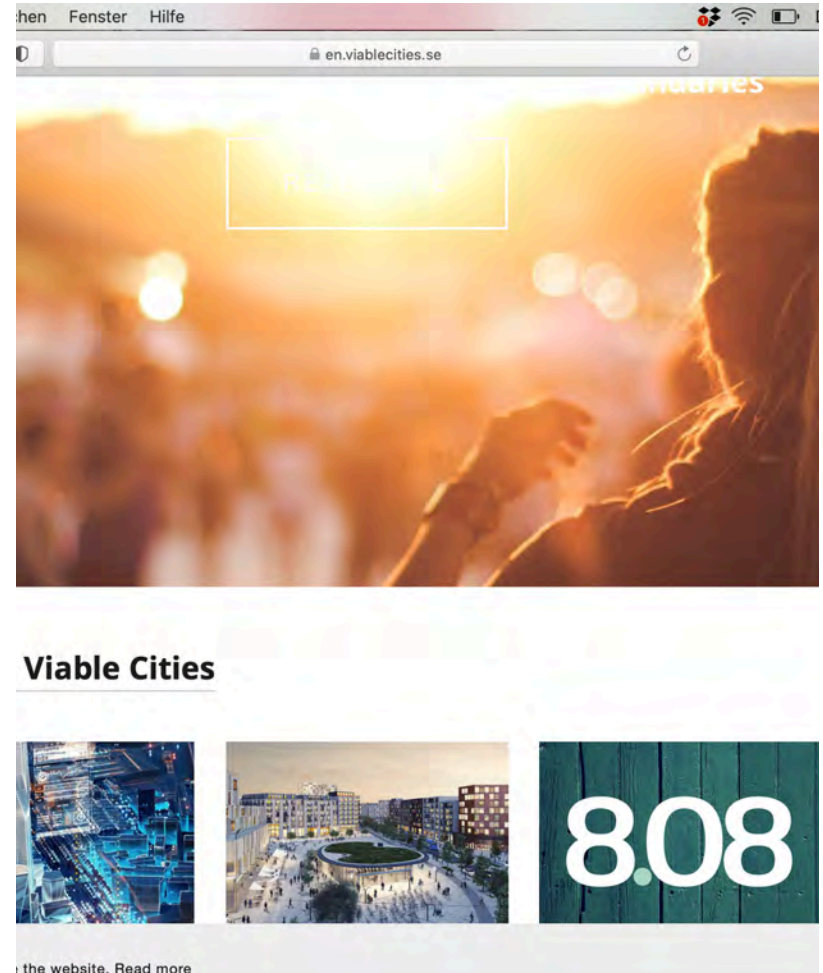
PREPARING FOR CLIMATE NEUTRALITY 2030

SWEDEN: Viable Cities

SPAIN: citiES2030

AUSTRIA/GREECE: Roadmaps for
Cities

OSLO, HELSINKI, COPENHAGEN..



STATE OF PLAY

REGIONAL COLLABORATION

OSLO: Blue & Green City

the international Oslo Branch

Oslo Region = Os

jectOsloRe

management strategy
the Oslo Region



#ProjectOsloRegion

Joint Strategy Process

Encompassing 78 Municipalities

STATE OF PLAY

LOCAL FOCUS

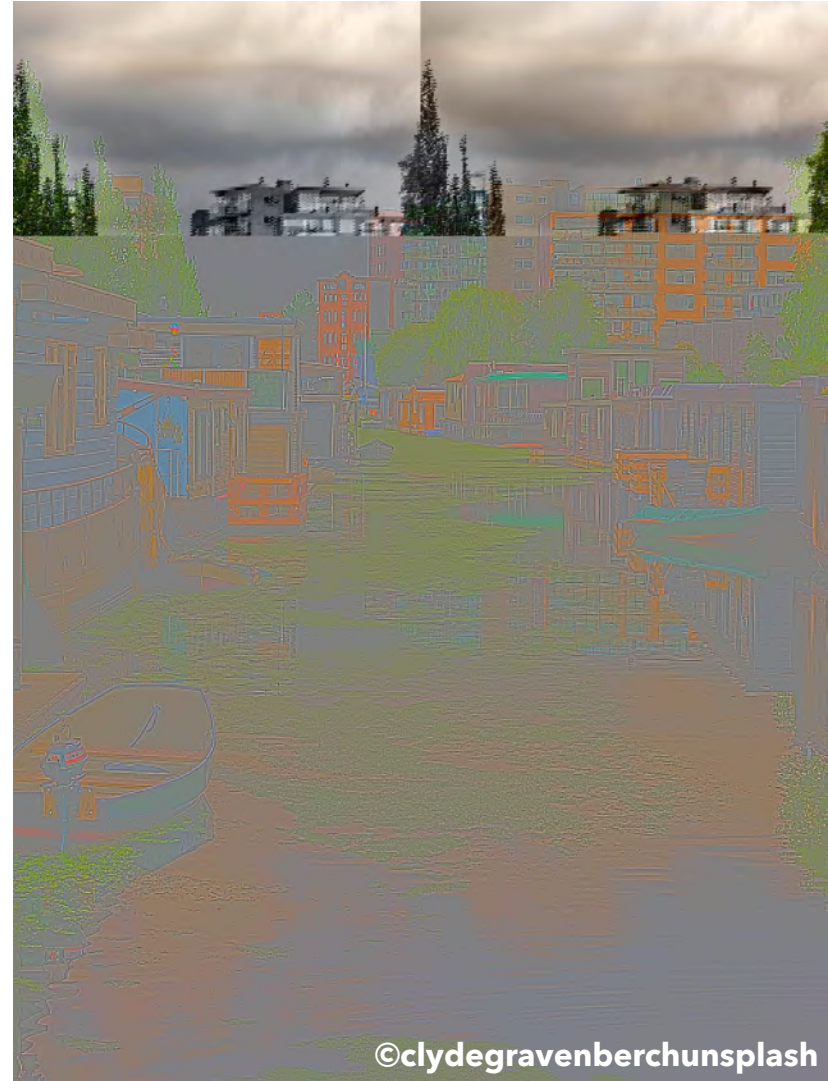
GRONINGEN ENERGY TRANSITION

From 3 to 130 Neighborhoods

District Energy Plans (Heat, Transport, Electricity)

Paddepoel Local Heating Network

„Energy Transition is Social Transition“



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STATE OF PLAY

STAKEHOLDER INVOLVEMENT

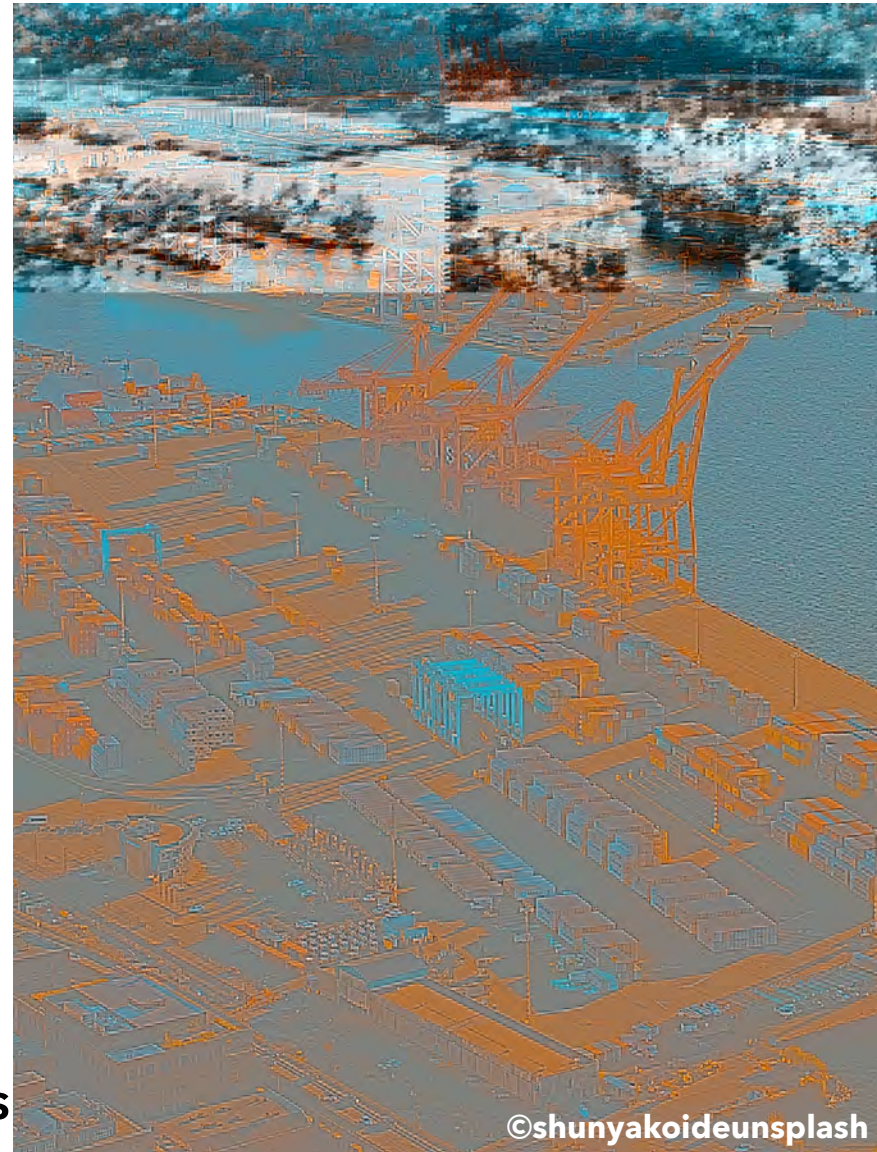
GENT CLIMATE NEUTRAL CITY&PORT

First Climate neutral Neighborhood by 2030

Energie-Centraale supporting households

First entirely circular Neighborhood

Joint smart Approach City+Port: Clean Tech Cluster, Logistics, Integrated sustainable Development, specific KPIs



©shunyakoidunsplash

Gent Climate Strategy



In 5 years, the Energiecentrale offered advice, loans and technical assistance to 10.000 families, leading to 30M investments

Gent Climate Strategy



€ 30.000
per house

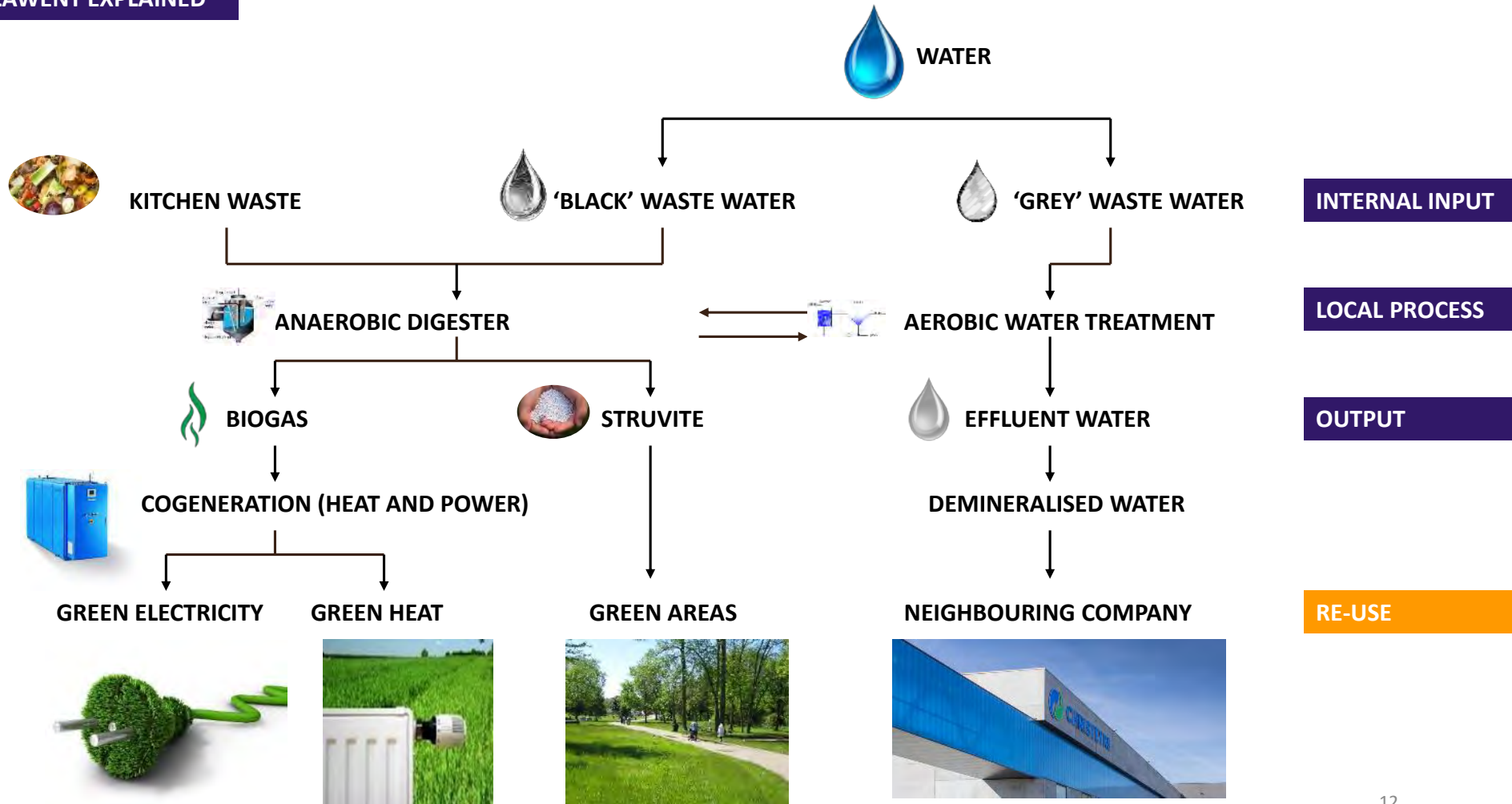


Gent Climate Strategy

In 'De Nieuwe Dokken', a citizen's coop and private companies are developing a truly circular neighbourhood. Cycles of water, waste and energy are closed to extreme levels.

Gent Climate Strategy

ZAWENT EXPLAINED



STATE OF PLAY

SYSTEMIC TRANSITION

VIENNA PASSIVE HOUSE PIONEERING CITY

Eurogate: Europes largest
Neighborhood in passive Standard

From Energy Strategy to Energy Zoning

40% of Residential Units retrofitted

Technical Innovation meets Heritage



STATE OF PLAY

SYSTEMIC INNOVATION

LONDON: Demand Responsive Bus Services

ANTWERP: Mobility as a Service

SHARING SCHEMES

OPEN SMART LAST-MILE DELIVERY SYSTEMS..

VIENNA: Local Automated Bus in Seestadt Aspern



STATE OF PLAY

SOCIAL INNOVATION THROUGH PUBLIC-PLURAL PARTNERSHIPS



TAKE AWAYS & IMPLEMENTATION PERSPECTIVES

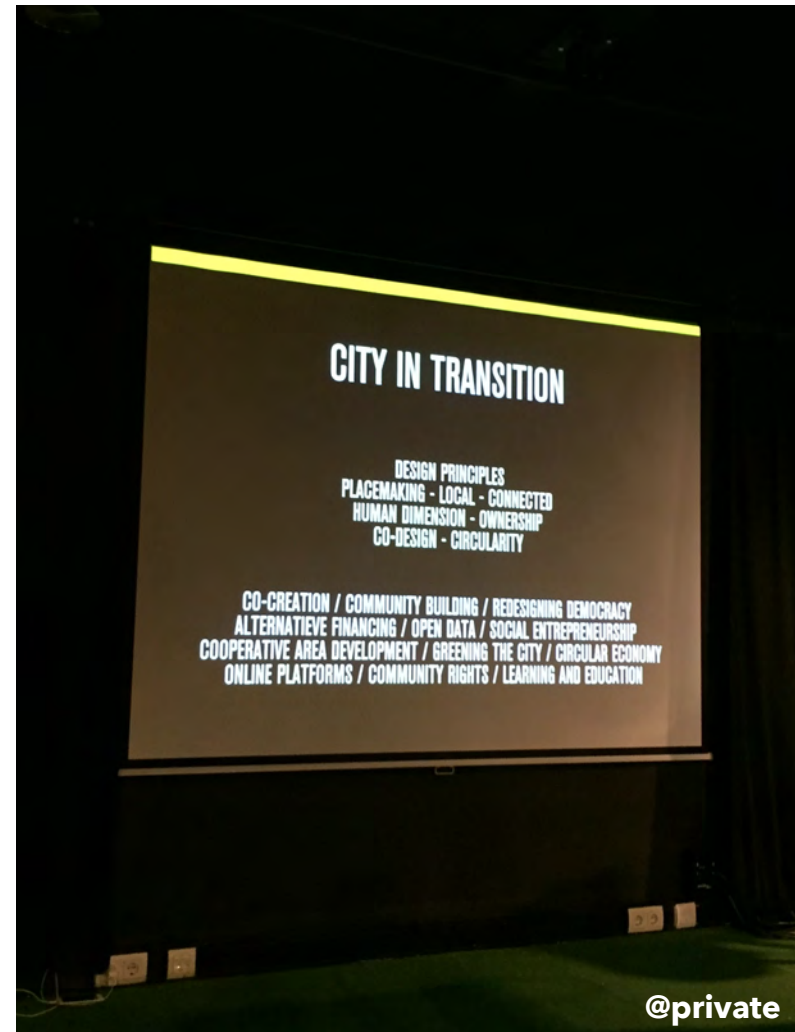


TAKE AWAYS

COLLABORATION

TRENDS

- Emerging Public-Plural-Partnerships
- Social Entrepreneurship
- Stakeholder Management: Involving and Steering the quadruple Helix
- Joint Climate Innovation Initiatives/ Platforms
- Partnering/Scaling-up for Bankability



TAKE AWAYS

PPP WELCOME!

PPP IN GOVERNANCE MODELS

- Strategy Development as a PPP
- Active Leadership of Private Regional Stakeholders
- PPP in Implementation: Joint Agency Operation
- Building Local, National, European, Global Platforms/Consortia..



TAKE AWAYS

GOVERNANCE INNOVATION

A New Role for Cities

Stakeholder Management: involving and steering the quadruple Helix

Supporting Citizen Action & Bottom-up Design

Multi-tier Collaboration

Binding Contracts



TAKE AWAYS

BRANDING

- Regional USPs
- Internationalization Strategies
- Shared Branding & Story-Telling
- Provide Incentives for optimizing **Governance**, e.g. operating Agencies under one Umbrella



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TAKE AWAYS

LEADERSHIP

A NEW UNDERSTANDING OF URBAN LEADERSHIP

Visionary

Long Term

Vertical and Horizontal

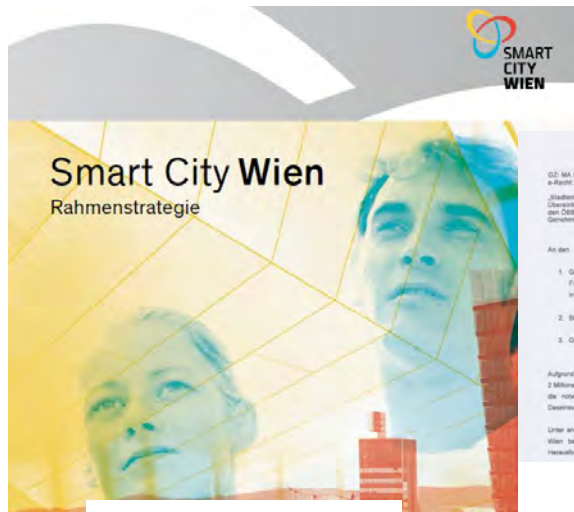
Through Cycle

Collaborative

Outgrowing Borders+Silos



TAKE AWAYS



FUNDAMENTALS

Leadership&Vision

Plan

Branding

Open Governance



OPERATIONS

Using Opportunities

Creating Scale

Legal& Land Use Tools

Financing, PPPs

Coordinated Action



MOMENTUM

Long-Term Approach

Calls, Grants,
Missions, Agreements

Trends&Innovations

Participation

MISSION

IMPLEMENTATION

PERSPECTIVES

Inspiring & Facilitating Exchange and Cooperation between Cities

A new European Lending&Blending Facility+new Investment Opportunities

Role for Businesses: local, national, European, global Platforms

Stakeholder Management: involving and steering the quadruple Helix

Partnering for Bankability



Thank you!

