Driving Urban Transitions to a Sustainable Future

Proposal for an Urban Partnership under Horizon Europe

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(Chair of the JPI Urban Europe Management Board)

For questions and requests please contact info@jpi-urbaneurope.eu

Agenda

- Welcome by JPI Urban Europe and European Commission

- Introduction to the DUT Partnership

- Thematic Priorities

- Implementation Measures

- Cooperation with other networks, initiatives and partnerships
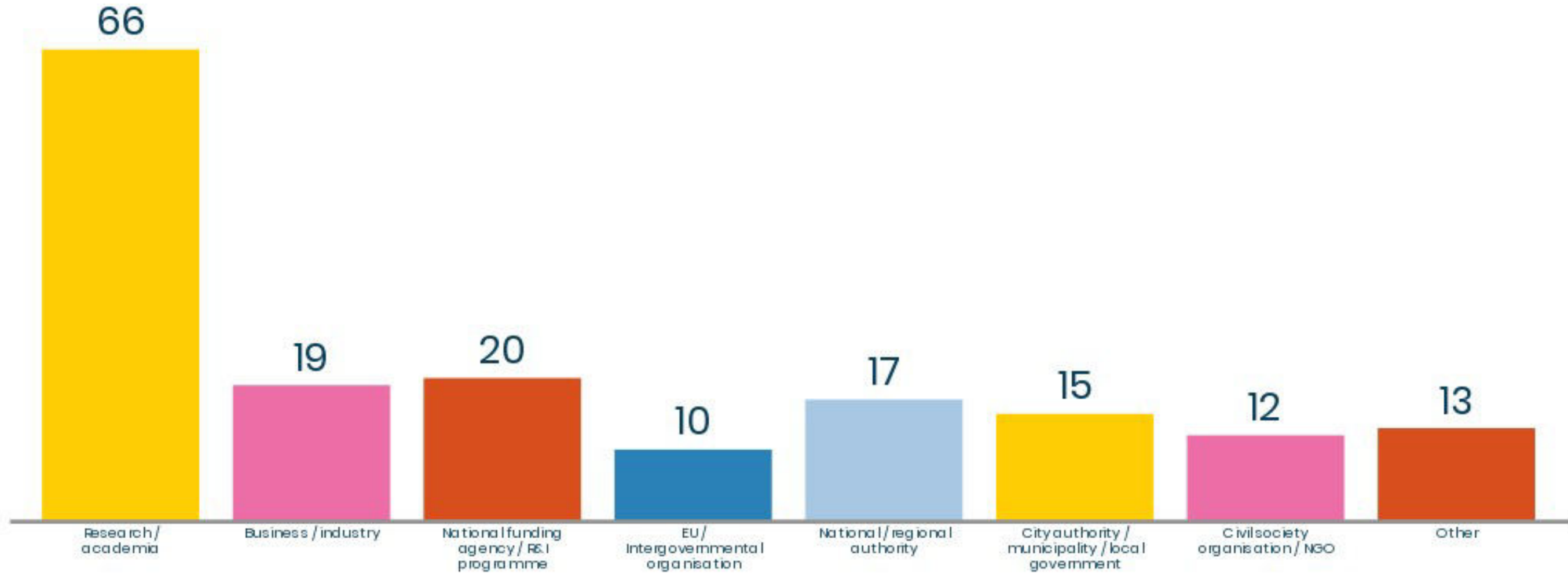
- Next steps

Welcome

- **Mari Solerød**, Chair of the JPI Urban Europe Governing Board, Research Council Norway

- **Jean-Francois Aguinaga**, European Commission, DG Research and Innovation, Head of Unit Future Urban & Mobility Systems
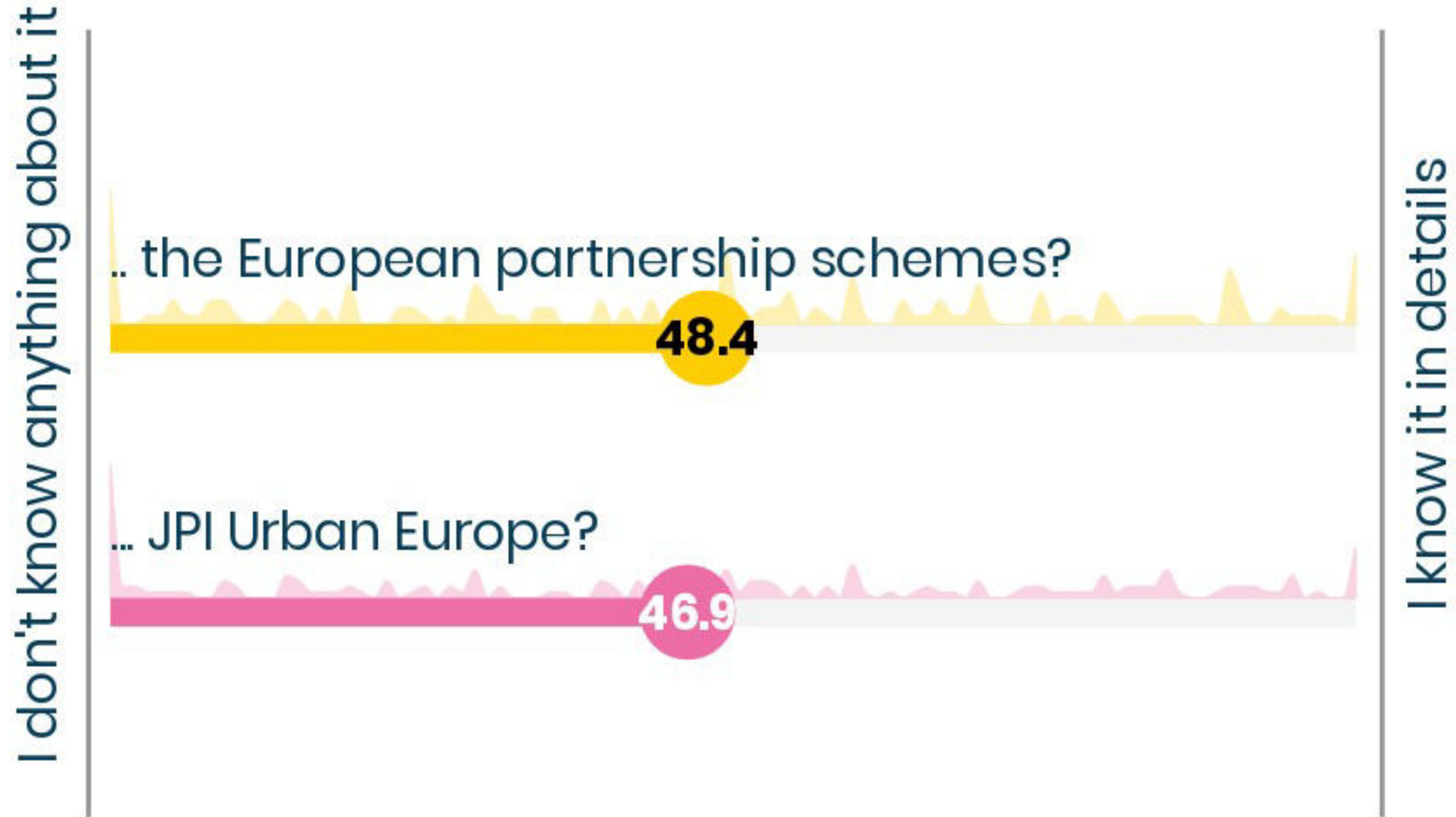
What city are you from?

Which stakeholder group do you represent?

Category	Value
Research / academia	66
Business / industry	19
National funding agency / R&I programme	20
EU / Intergovernmental organisation	10
National / regional authority	17
City authority / municipality / local government	15
Civil society organisation / NGO	12
Other	13

172

How familiar are you with...

.. the European partnership schemes? — 48.4

... JPI Urban Europe? — 46.9

(Left axis: I don't know anything about it; Right axis: I know it in details)

JPI Urban Europe – Facts & Figures

an intergovernmental R&I initiative on urban transitions and sustainable urban development

- 20 European countries participating
- 100 million Euro public investment for joint calls
- 9 calls implemented, thereof 4 in cooperation with H2020
- 80+ projects funded
- 25+ European funding agencies cooperating
- Cooperation schemes with Belmont Forum and China established
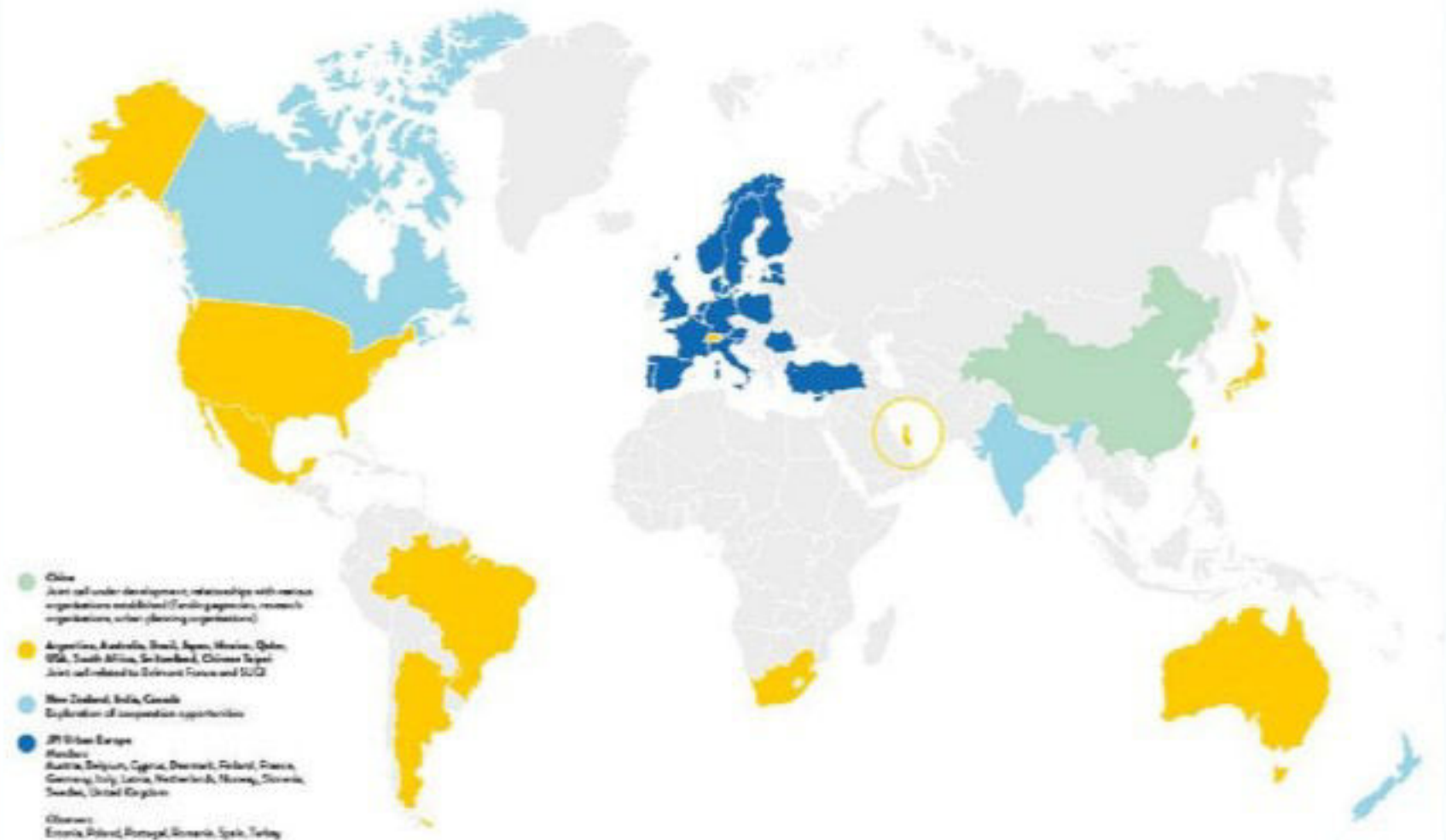
New approach to European partnerships: overview

New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives

Key features

- **Simple architecture and toolbox**
- **Common set of criteria**
- **Coherent life-cycle approach**
- **Strategic orientation**

Co-programmed
Based on Memoranda of Understanding / contractual arrangements; implemented independently by the partners and by Horizon Europe

Co-funded
Based on a joint programme agreed by partners; commitment of partners for financial and in-kind contributions & financial contribution by Horizon Europe

Institutionalised
Based on long-term dimension and need for high integration; partnerships based on Articles 185 / 187 of TFEU and the EIT-Regulation supported by Horizon Europe

European Commission

URBAN EUROPE

Key Elements of a Co-funded Partnership

- Cooperation of Member States and EC

- National commitments for 7 years to co-fund joint actions

- Complementarity and added value for Horizon Europe

- Link to national programmes and strategies and added value of transnational cooperation

- Strategic Research and Innovation Agenda as backbone

- Portfolio of additional activities to create impact

The DUT Partnership

The DUT Partnership steps up the game to tackle urban challenges. We enable local authorities and municipalities, business and citizens to make global strategies into local action. We develop the skills and tools to make urban change happen and boost the urgently needed urban transformations.

by

... jointly investing in challenge-driven R&I on critical issues hindering the exploitation of new solutions, approaches and technologies

... fostering co-design of urban transition pathways and implementation strategies

... making knowledge and evidence available for mainstreaming and replication

Policy Context

Urban transformation – a key element to meet our sustainability goals

An Urban Partnership to Transform our Cities

- SDG 11 as entry point to sustainable urban development targets

- Interrelation of urban-related goals creates wicked issues

- Take advantage of new technologies, evidence and cooperation schemes

- Build capacities in research, policy, administration and business to act
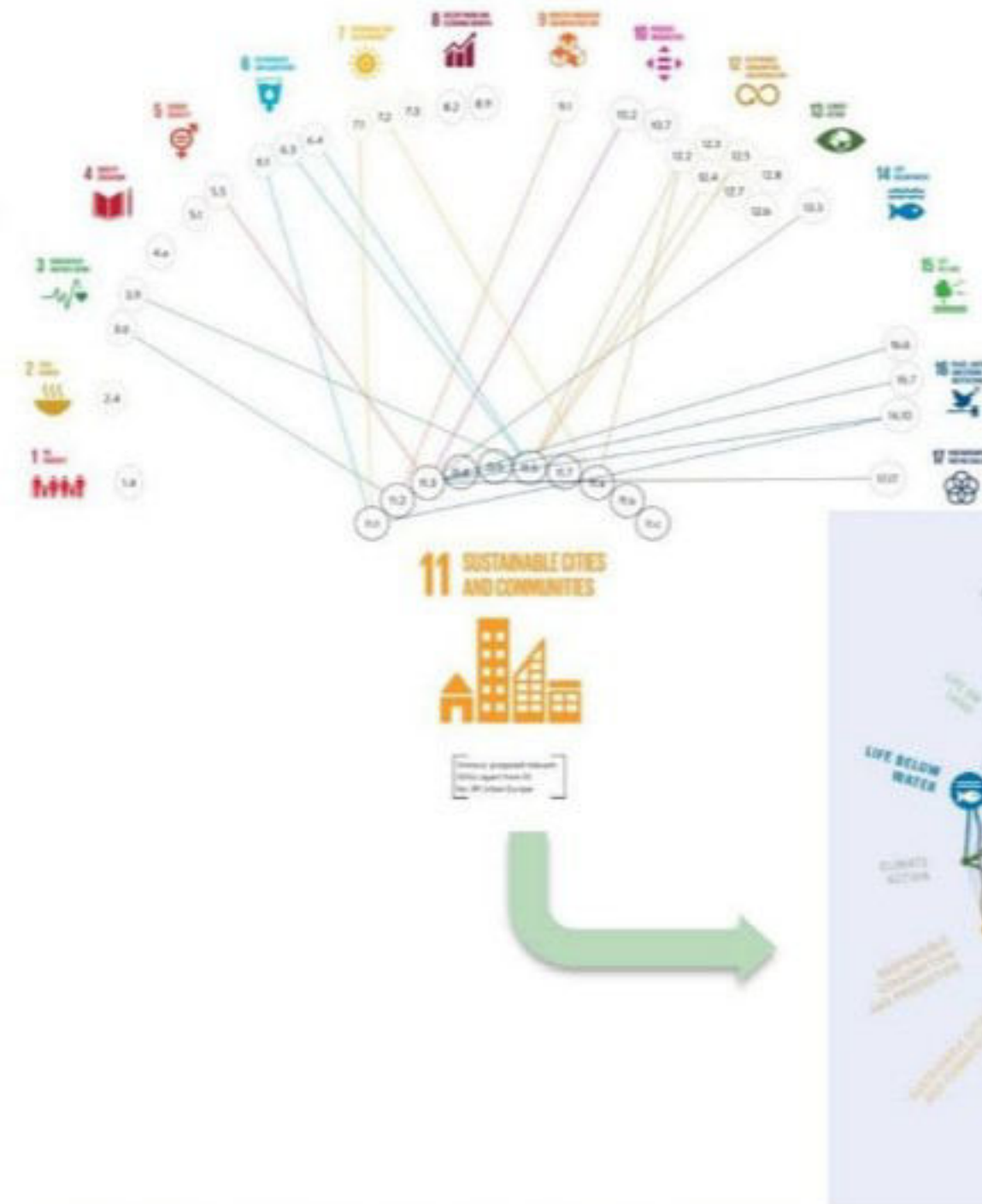
Benefiting from Diverse Experiences

SUSTAINABLE
DEVELOPMENT
GOALS

Joint goals and ambitions

spirit of urgency, common framework for action, critical mass, mobilise actors

local actions, testing solutions against different urban situations, good practice

Arenas for local experimentation and innovation

Challenges and Objectives

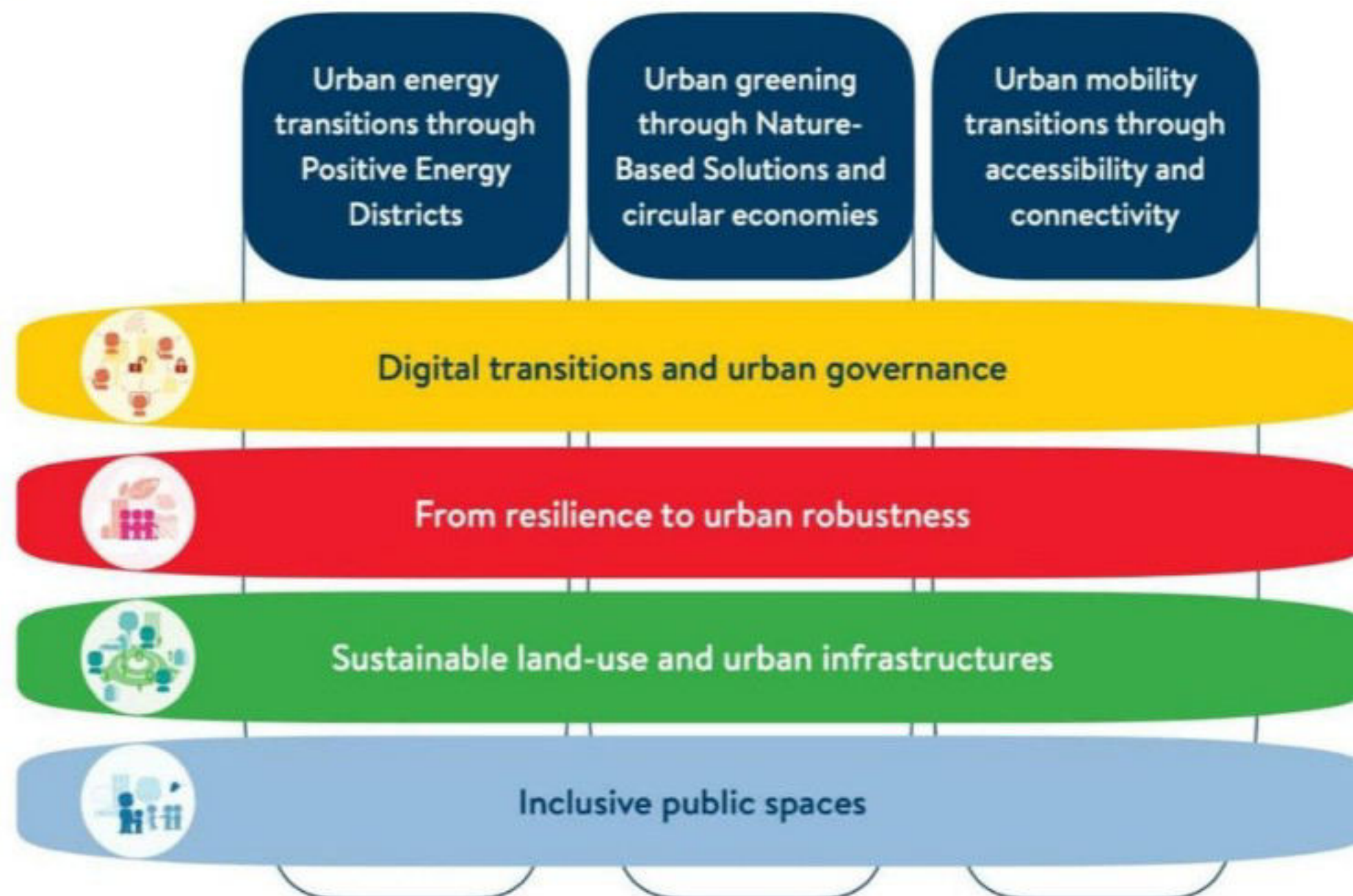| Capacity and community building	Integrated approaches to tackle complex urban issues	Bringing knowledge to action across Europe
Shape a quadruple-helix innovation eco-system on urban transitions	Increase effectiveness of urban solutions, technologies and processes	Create benefits for neighbourhoods and urban areas across Europe

Expected Impact

CAPACITY BUILDING IN CITIES

for urban transitions and
local actions

CROSS-SECTOR URBAN POLICIES

on regional, European and
international level

CHALLENGE-DRIVEN R&I POLICIES

using innovative funding schemes
and integrated R&I programmes

Partnership Concept

STRATEGIC
RESEARCH AND
INNOVATION
AGENDA 2.0

January 2019

https://jpi-urbaneurope.eu/app/uploads/
2019/02/SRIA2.0.pdf

Urban energy
transitions through
Positive Energy
Districts

Urban greening
through Nature-
Based Solutions and
circular economies

Urban mobility
transitions through
accessibility and
connectivity

Digital transitions and urban governance

From resilience to urban robustness

Sustainable land-use and urban infrastructures

Inclusive public spaces

Focus Areas of the Pillars

integrated approaches for urban transformations

Positive Energy Districts and Neighbourhoods
transforming the urban energy system

Downsizing District Doughnuts
an integrated approach for urban greening and circularity transitions

The 15 Minutes Cities
rethinking the urban mobility system and space

Key Issues for the 3 Pillars

Positive Energy Districts

- **Governance – PEDs for people**
  affordability, energy poverty, participatory planning, behaviour and lifestyle, certification, regulation, financing and business models

- **Prepare the energy system for PEDs**
  energy flexibility, energy security, renewable production, sector integration, life-cycle analysis

- **Integrated (urban) planning**
  green-blue infrastructure, mobility, system boundaries, resilience und vulnerability of cities

- **Inclusive PEDs**
  inclusive PED developments considering needs of different societal groups, different sizes of neighbourhoods and districts

The 15 Minutes City

- **Governance and inclusiveness**
  behavioural changes, accessibility, affordability, planning, organisational innovation, services

- **Multi-modal, integrated mobility systems**
  active modes, integration of new vehicle and transport technologies, digitalisation, increase 15min range

- **Redesign urban infrastructure and built environment**
  urban planning, new urban architecture, health and resilience

- **Rethink use of space**
  flexible use of public space, reduce demand for (car-based) movement, digitalization, functionality of neighbourhoods, peri-urban areas

Downsizing District Doughnuts

- **Governance and mobilising people for change**
  just transitions, overcoming unsustainable systems, participatory decision making, consumption and behaviour change, bottom-up initiatives driving change

- **Circularity**
  resource scarcity, new urban manufacturing, urban agriculture, consumption and change of behaviour

- **Sustainable spatial planning**
  green-blue infrastructure and NBS, reuse/renovation of built environment, local employment, public health

- **Urban design**
  Attractive built environments and inclusive public spaces, placemaking and sense of place

Reflections: Key issues for the pillars

#1, #2 The Positive Energy Districts Programme includes all energy streams, also mobility. Why is mobility a separate "mission"? REN21 status report found that more focus needs to be put also on the heat transition!

1: What links do you have with ETIP SNET strategic research agenda?

support the creation of prosumers

#3: Is biodiversity a part if this?

#2 is. Health also incorporated in this pillar?

#3 circularity also implies dealing with Migration issues?

#2 does it also deal with Circular Economy?

#3 biodiversity?

#2 Last mile logistics

Reflections: Key issues for the pillars

#2 - under new COVID restrictions how do we build in financial resilience for fewer users on public transport

P#1. Is water included in this pilar?

#2 mixed city, social life

2 - not only new vehicle and transport technologies - but also services and new partnershipsbehavioural change also for public players (what do they need to be convinced)?

#1 How PED relaterade to #2 and #3?

#3_: water aspect

#3 Air quality monitoring involving local community members

urban city living labs

Scale up and reproducibility of the pillar action need to be taken into account , especially in high density cities and on the other side in town characterised by urban sprawl

Reflections: Key issues for the pillars

From my values-based perspective on urban transitions - what opportunities are there to develop an integrative approach across all three pillars by creating an urban ethic of shared values?

pilar 2 should have also Urban design as keyissue like #3

#2 How to bring destinations closer to where people live to reduce commuting needs?

The three pillars seem are potentially in line with the mission climate neutral cities. It the three pillars in the DUT partnerships are "kind of a mission in its own", could be formulated "what should be achieved by when?". Or...what is your view?

#2 compact cities. new morphology patterns

#3 circulraity should take into account the creation of city biorefinery to treat food waste coming from separate collection (related also to #1)

#3 - water challenges also part of positive energy as major trade-offs

#1 local energy production & market places for prosumers

#2 How do you pan to incooperate with (service) industry (eg car industry)? Do you also consider the design of business cases?

Reflections: Key issues for the pillars

#2 mobility related to jobs in metropolitan context. How to shorten them?

#1, #2, #3 - can the focus be on on removing barriers to radical action in cities/neighbourhoods, mostly a question of social innovation, over more technical innovation?

#2 multimodal, integrated mobility - are we talking about MaaS/MoD concepts, business models etc.?

How to finance the broader transition activities when syndicating/coordinating different actions is needed. How cities and the financial sector shall et to knw each other and co-develop investment models.

#3 social exclusion issues

#2 15 min cities is more about public space use than just mobility…urban biodiversity should be also important here…

#1 PED, urban laboratories are included in #1?

#1 waste heat recuperation

#1; #2; #3 health should be taken into account in the three pillars

Reflections: Key issues for the pillars

Is urban agriculture a priority - the growing side?

#2 link between urban mobility and logistics and long haul freight transport

quality of life in changing situation

#1 urban plannig, land-use planning + urban design integration in PEDs

#1: Energy efficiency related issues

#2 mixed uses, rebuilding the existing building stock

#3 The governance of urban design. How to make sure streets and public spaces are designed and managed in a way that promotes conviviality?

#3 Any link to the Circular Economy Action Plan? #2 And also to the expected EU Strategy for a Sustainable Built Environment?

#3 food and urban farming

Reflections: Key issues for the pillars

#1 district-level energy planning, see also SECAPs

#2 cooperation of goods transport hauliers

#3 Servitization and sharing should play a considerable role here

#123 an approach by thinking not only in businesscases but also based on valuecases and the role of the governements. ownership of businesscase/valuecase

#1 #2 #3 must require multi-level/scale (!) approaches; institutional (!) innovation; building transformative (!) capacity

#3 to include what kind of transport can using ore design something new

What could be the link btw 3 pillars and mission Climate neutral Cities?

Exploring and Monitoring of behaviour Change in and across the whole system

multi-use and flexible use of public space

Reflections: Key issues for the pillars

the issue of unintended exclusion of the most vulnerable group

to go fot human driven data, not data driven solutions.

Ask public authorities what their problems are and what 'solutions' they foresee.

Interfaces Between Pillars

Positive Energy Districts

Developments on neighbourhood scale:
- energy demands for mobility
- infrastructure requirements
- functional design and planning of neighbourhoods
- ...

The 15 Minutes Cities

rethinking the urban mobility system and space

Downsizing District Doughnuts

Contribution to greening of urban areas and economies:
- impact on material flows and circularity
- mixed use of neighbourhoods and link to green-blue infrastructure
- shared economy
- ...

Interfaces Between Pillars

The 15 Minutes City

Mobility in PEDs:

- integrated energy and mobility planning
- developing attractive, inclusive and accessible neighbourhoods or districts
- strengthen the role of mobility in neighbourhood concepts
- ...

Positive Energy Districts and Neighbourhoods
transforming the urban energy system

Downsizing District Doughnuts

PED contribution to downsized donuts:

- integration of green-blue infrastructure in PED concepts
- impact of PED on circularity, material flows, resource efficiency
- economic dimension of PEDs
- ...

Interfaces Between Pillars

Positive Energy Districts

The role of energy in doughnuting districts:

- Refurbishment and upgrade of built environment
- energy and resource efficiency and circularity of PEDs
- integration of GBI and NBS in PEDs
- energy solutions for new urban manufacturing

Downsizing District Doughnuts

an integrated approach for urban greening and circularity transitions

The 15 Minutes City

Interplay of the 15 minutes city and doughnut districts:

- contribution of new mobility systems and services to circular urban economies
- mobility solutions for metropolitan industries
- Consideration of the urban-rural continuum
- multi-functional public spaces

Commonalities Across the 3 Pillars

Rebuild the existing city considering this 3 pillars

interlinked/holistic way – overarching goal should be increasing the quality of living

SDGs as a reference

Data

involve a different approach to space and land

Stakeholder engagement; inclusiveness

New urban governance considering expertise of residents/inhabitants; changing governance structures

Transversality (breaking silos)

Business case development; building new economy

inclusive public spaces and different ways people interact with technology and nature

Need for significant behaviour change; public acceptance

Multidisciplinary knowledge and collaboration

Service provision

Challenge of mainstreaming to overcome niche positions

a more participatory, multi-stakeholder policy making processes; empowering people

Thinking in complex systems - seeing the inter-connections of different decisions

What are key issues between the pillars to drive integrated approaches, to strengthen synergies and to overcome barriers?

Promoting and measuring lasting individual behaviour change

Shared and common values

consider what are the limiting factors to develop new approaches, upscale

collaboration between sectors

interoperability between energy streams (electricity, heating, gas)

health, well-being and equity

#1 #2 #3 must require multi-level/scale and cross-boundary (metropolitan) approaches; institutional (!) innovation; building transformative (!) capacity

Suggest to change focus from Positive energy districts to positive and passive districts, giving space to rethink energy, food, movility.

New paradigms in PUBLIC space use...not just mobility and business but also leisure, social interaction, access to quality green areas, introduction of biodiversity into the city...

What are key issues between the pillars to drive integrated approaches, to strengthen synergies and to overcome barriers?

Connect all 3 pillars clearly to the mission climate neutral cities! A powerful approach for synergies and impact.

Data evidence linking different administrative levels

Metrics could become a good tool to identify weaknesses and strenghts

collaboration between municipalites and industries, access to data

Shared, comprehensive view and understanding

role of spatial planning to connect the different sectoral policies

common understanding and motivation for changes

The need to cut emissions and sustainable use of resources

Involvement of the financial communty in order to create understanding from both cities and financial stakeholders how to make projects investable or how to create investment vehicles to finance the transition and synergies in investments

What are key issues between the pillars to drive integrated approaches, to strengthen synergies and to overcome barriers?

New econnmies and craftsmanship, entrepreneurship

Health aspects and climate resilence of the built environment

Investigate System effects

Strong cooperation between government, municipalities and industry

Supporting accelerator teams in cities with the capacity to develop radical change initiatives. Suggest 2 stage processes, initially to support local capacity then actions that they bring forward

- Focus on real world environment / living labs and human centered needs- Focus on open source / standard platforms to prevent siloes / vendor lockin

Urban space as a factor of possible production of Justice/injustice (cities of citizenship)

Sustainability should overaching all pillars

climate change

What are key issues between the pillars to drive integrated approaches, to strengthen synergies and to overcome barriers?

integrating research, cities, citizens and business life to recognise needs and activies e.g through living lab activities

collection of experiences, platform of sharing them

Consider all scales of action as the three pillars may address different ones... focus on nexus

building up political commitment

Multicentric city. Reshape core of neighborhoods for energy, services and dinamics

Create new corporate culture

What R&D is going into reforming city structures, which are based on silos and annual budgets, which do not allow for such a global holistic approach. DUT seems to be treating these subjects without taking into consideration the internal city (and mi

How about data collection and analyses?Do you also look into these more technical issues?

need for a broad appoach on "values": economic, ecologic, social, cultural, health, ... (quintuple helix)

What are key issues between the pillars to drive integrated approaches, to strengthen synergies and to overcome barriers?

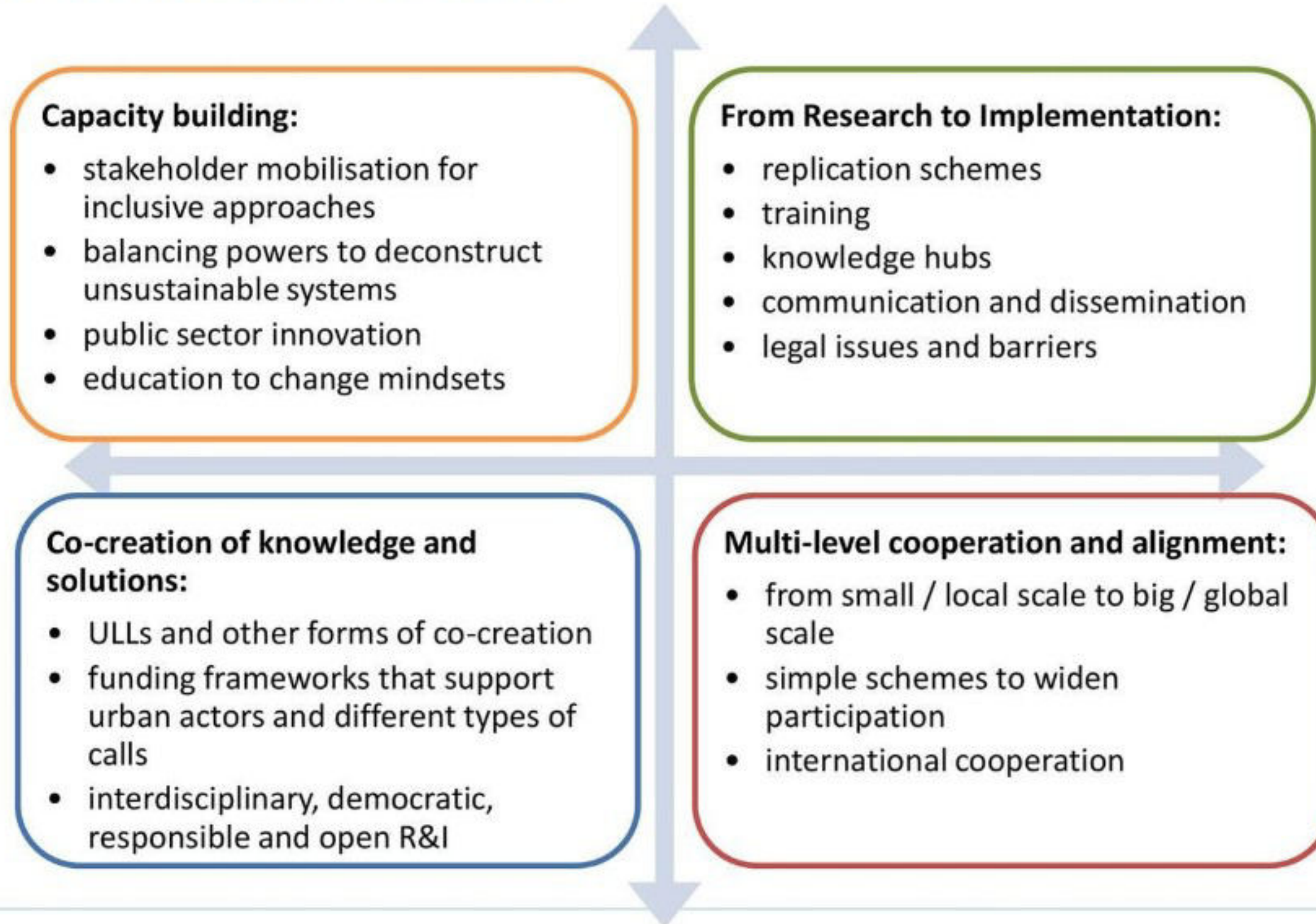integration of services between the center and the peripheral city

not only new urban development areas - also consider "older" or 60s city districts

Ideas for Implementation

Engaging urban political transitions
Mobilising train and engage decision makers

Capacity building in communities for urban transitions
Building a new citizenship

Local Experimentation for taking the big leap forward
Change as a process

Public engagement and shared value creation
Define the "Citizen" in participatory processes

From Universal Design Principles to Local Action and back to Global Learning
How to adapt locally?
How to capitalise learning on a transnational level?

How to think beyond governance as usual
Digital platforms and space for unlikely collaborations

Everyone can make a contribution:
Learn > Apply > Change
'Sustainability alphabetizing', a systemic approach of city relations

Leadership of "cities of radical innovation"
Transformative thinking for transformations

Supporting Sustainable Suburbanity
The challenge for sustainable mobility in suburban and peri-urban areas

What are the most relevant ideas for implementation? 100 points to distribute

19% Local Experimentation

16% Capacity building in communities

12% Public engagement and shared value creation

12% Engaging urban political transitions

11% Leadership of "cities of radical innovation"

10% From Urban Design Principles to Local Action and back to Global Learning

8% Learn > Apply > Change

7% Thinking beyond governance as usual

6% Supporting Sustainable Suburbanity

Additional priorities for implementation

Energy communities

We must reform the silos management within local authorities

from serial experimentation to scaled adoption

Political agreement.

Engage local authorities and cities

To tackle more than one pillar at a time

more prosumers

Itegrate small players, not only front runners

Set-up standardised or proven methodologies for co-creation

Additional priorities for implementation

Health correlsted air pollution

integration of services between the center and the peripheral city

funding of public authrities and and industry

Collaboration with other municipalities and regions, exchange best practices. To ensure that the implementation is anchored by all involved stakeholders.

Innovative approaches to engage with communities not normally heard.

crowdfunding & community ownership of (energy) infrastructures to engage citizens in the local transition

strong national level dialogue

BEHAVIOR EDUCATION / People need to Change their ways of CONSUMING, WASTING, CARING

strengthen bottom-up initiatives

Additional priorities for implementation

Climate changing

Strengthen local administration

Test new formats for science-policy dialogue

Develop entrepreneurial attitude in public sector via agile PPP and allowance to risk/fail

Enable users, training, local regional level

enabling changes of national regulations starting with local experiments and projects

High politicical commitment nad binding insertion on urban planning and official documents of the city

Conditions relevant to municipalities

consider framework conditions for (sustainable) 'business cases'

Additional priorities for implementation

Healthy cities

citizen science

Strenghtened Public private partnership

Ask cities what their problems are. Involve them from the outset. Make sure they are part of the problem definition and solution finding.

Transparency of local finances

with new technologies etc there should be room for funding prototyping: goes well with experimentation

Political Leadership and the role of Civil Servants role

Inclusion of public space security, especially with vulnerable groups (women, older people, cultural and religious groups, etc)

Funding not only academia but also city councils as to be able to implement pilots

Additional priorities for implementation

Creative "opportunitie space" for innovators across sectors. Challenge governance practice to enable communities.

school education more addressed to environmental issues

Include small municipalities

actions focusing politicians

Support national urban policies - often to fragmented - or not considered at all

Incentives from govermental agencies

Engage marginal communities and social groups

question norms and values

Connect to local politically decided frameworks and goals for Urban sustainability and climate neutrality and connect to mission climate neutral cities + investments for urban transition

Additional priorities for implementation

Engaging small local companies and enabling participation in change for people/organizations with ideas but without a tools to develop them

https://johana8715.wixsite.com/aguaurbanavyb/ digital tools for local consultation and participation that leads for financial aids

Don't forget about the regions

Motivation for involvement of the private sector

Work together with academia to innovate and evaluate actions to provide key evidence and scale up or replicate

open governance approach

Align with local political goals and investment plans for sustainable transition

Impact measurement

Focus on Products (Mobility) as a Service

DUT embedded in the global landscape

Cities and regions networks

ERRIN

City-Science Initiative

ICLEI

CEMR

Covenant of Mayors

Eurocities

Neighbouring partnerships

Clean Energy Transition

Built4People

Rescuing biodiversity

Water4All

Cooperative, Connected and Automated Mobility

2ZERO

EIT Urban Mobility

Other networks

EERA

UERA

ERTRAC

Euroheat

SET Plan

ECTRI

EARPA

ALICE

EMEurope

DUT Partnership
integrated approach towards urban transformations

city networks

national and regional R&I programmes

clusters

National networks and programmes

H2020/Horizon Europe projects

Mission Climate-neutral and smart cities

UAEU partnerships

European Urban Initiatives

European programmes

UN-Habitat

Belmont Forum

Mission Innovation

UCLG

International initiatives

What are relevant networks of implementation?

EnergyCities	POLIS (mobility)	Ertico
POLIS, CIVINETs ,	Polis	Covenant of Mayors
Batteries Europe	Polis	ESPON (eu territorial programme)

What are relevant networks of implementation?

URBACT, UIA, national networks such as PIM in Poland

#3 - other researcher communities (Biodiversity, Water)

ECTRI

EERA JPSC

European Federation of Agencies and Regions for Energy and the Environment (Fedarene)

IEA DoCC TCP on Decarbonization of Cities and Coomunities

ERRIN

covenant of Mayors

Transport & Environment

What are relevant networks of implementation?

Łukasiewicz Research Network (R&D network in Poland)

Bio-based Industries joint undertaking

Urbact IV

Much here aligns with our urban transformation work at EIT Climate-KIC. We are helping cities with their urban missions across Europe. Perhaps we can co-create calls where their radical innovation 'portfolios' align with your pillars

IEA DoCC, EERA

CIVITAS

Regarding cities, for funding pilots it would be mainly LIFE/INTERREG/H2020/UIA...

ECTRI

BUISNESSES, ASSOCIATIONS, NGOs

What are relevant networks of implementation?

FEHRL	National ITS Assiciations /Networks (and their European Umbrella);	CIVITAS INITIATIVE
CGLU	RHC-ETIP	EERA
Climate KIC	EIT KICs	WorldGBC

What are relevant networks of implementation?

CEMR, UCLG, Metropolis...

Eurotowns

European Sector Associations

EIT Urban Mobility

lokal and regional networks (smart city networks by example)

European innovation platforms

transport in metropolitan areas

+CityxChange

Ectp

What are relevant networks of implementation?

EERAdata (H2020 research project), Technical University of Munich - Institute for Energy Efficient and Sustainable Design and Building

How 'generous' will be the traditional science funders for DUT?

Next steps

- Elaboration of pillars, implementation plan and multi-annual call agenda
- Follow-up webinar on DUT in fall 2020
- JPI Urban Europe Policy Conference, 12. Nov 2020

- Urban Lunch Talks, https://jpi-urbaneurope.eu/urban-lunch-talks-a-webinar-series/
- AGORA thematic dialogues

- Register for the JPI Urban Europe newsletter to stay updated
  https://jpi-urbaneurope.eu/jpi-urban-europe-newsletters-and-news-alerts/

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