



Gemeente
Amsterdam

Chief Science Officer Amsterdam

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University of Amsterdam

Chief Science Officer, City of Amsterdam

24 september 2020

✘ ✘ ✘ Paradigm of human experience

Homo Mensura

(human being as measure of all things)



Homo Mensurabilis

(the measurable human being)



Humanitas Mensurabilis

(measurable human kind)



Communities of Systems and People

High Trust



Low Trust

Participatory



Surveillance

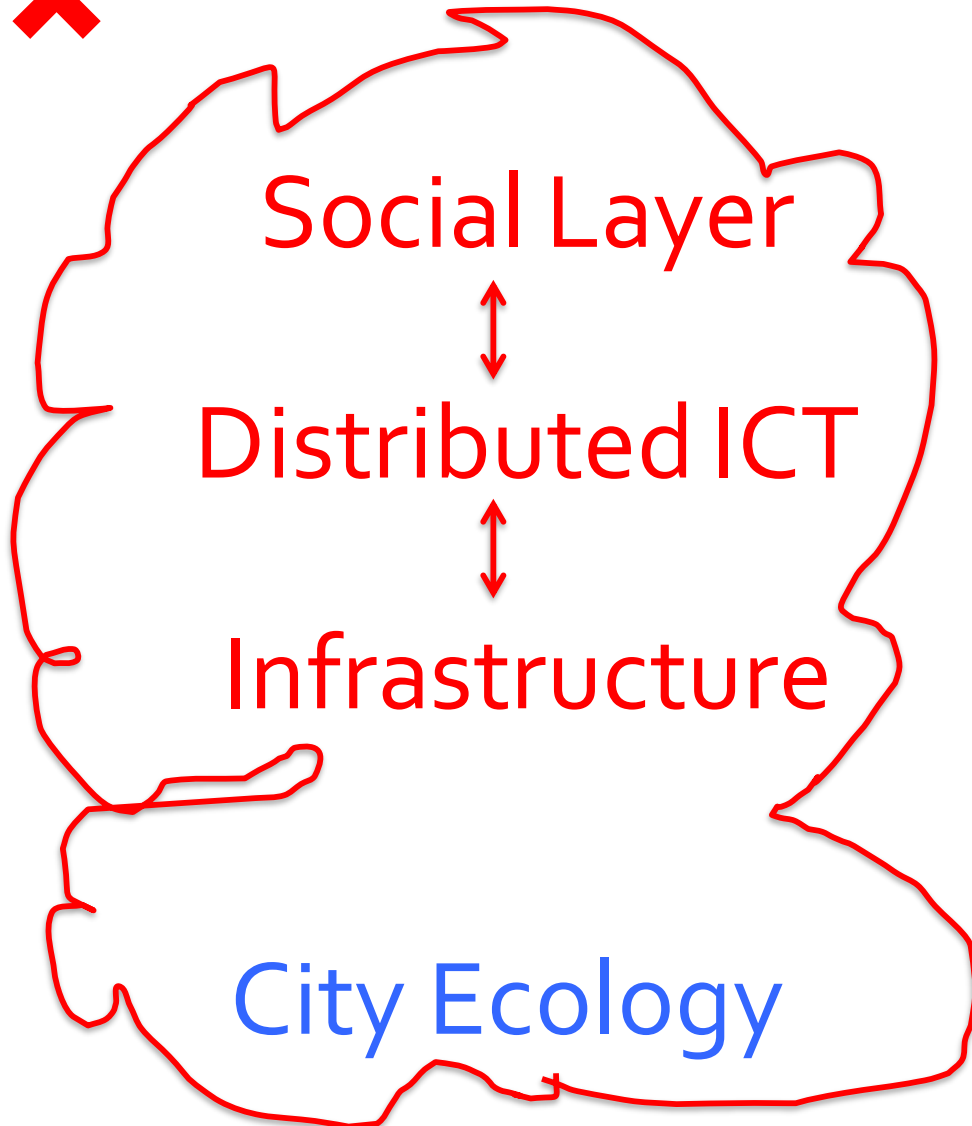
Evolving meta design paradigm



Transforming dynamics of power

To conquer	< >	to maintain	< >	to nurture
To control	< >	to direct	< >	to orchestrate
To follow	< >	to deliver	< >	to contribute
To delegate	< >	to mandate	< >	to participate
To make	< >	to produce	< >	to personalize
To craft	< >	to design	< >	to meta-design

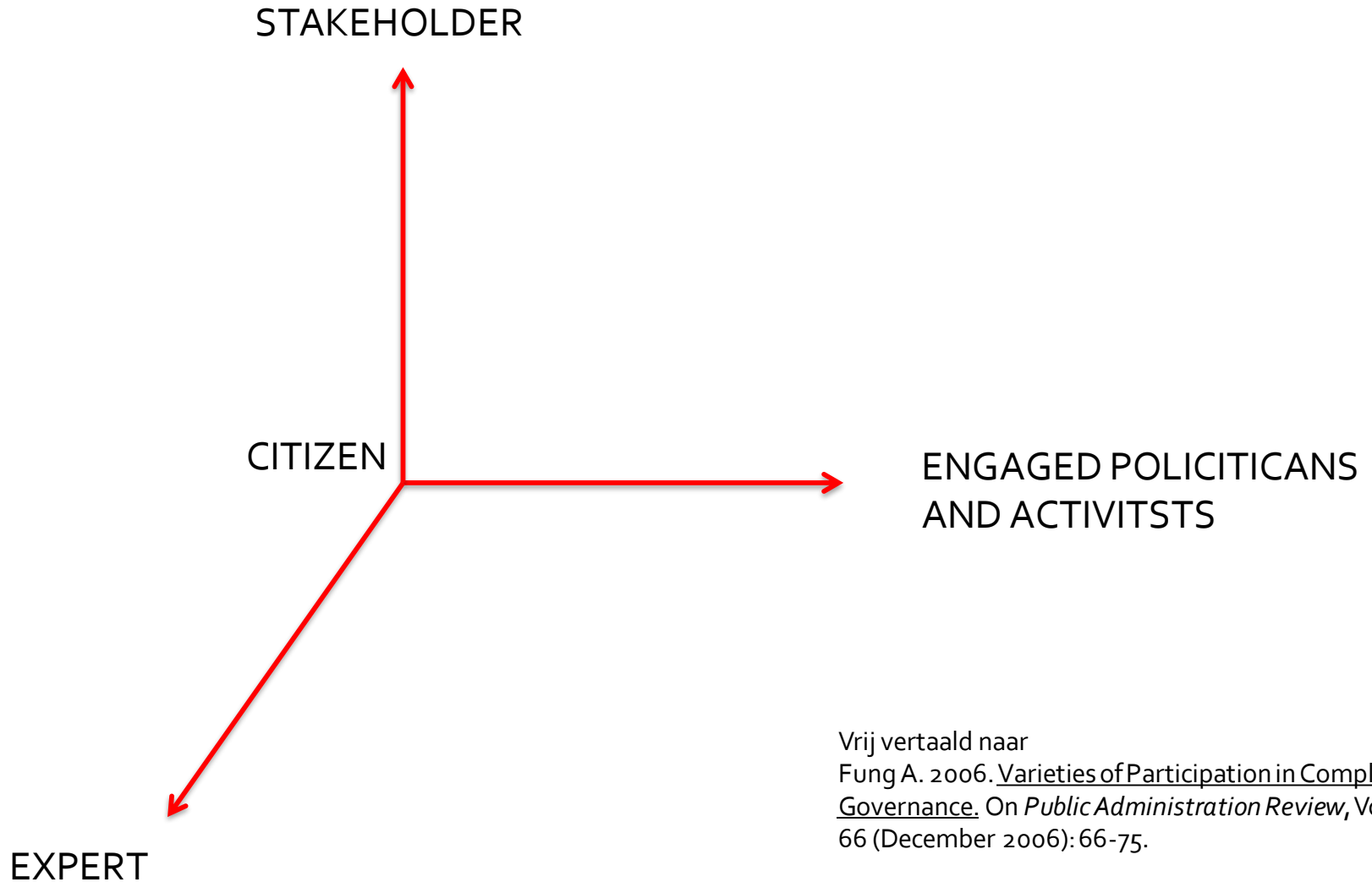
✘ City is a 'complex participatory system'



- Trust and Truth
- Power and governance
- Locality of data
- Transparency of ownership
- Transparency of agency
- Trace-ability of data
- Identify-ability of data
- Poly-centricity



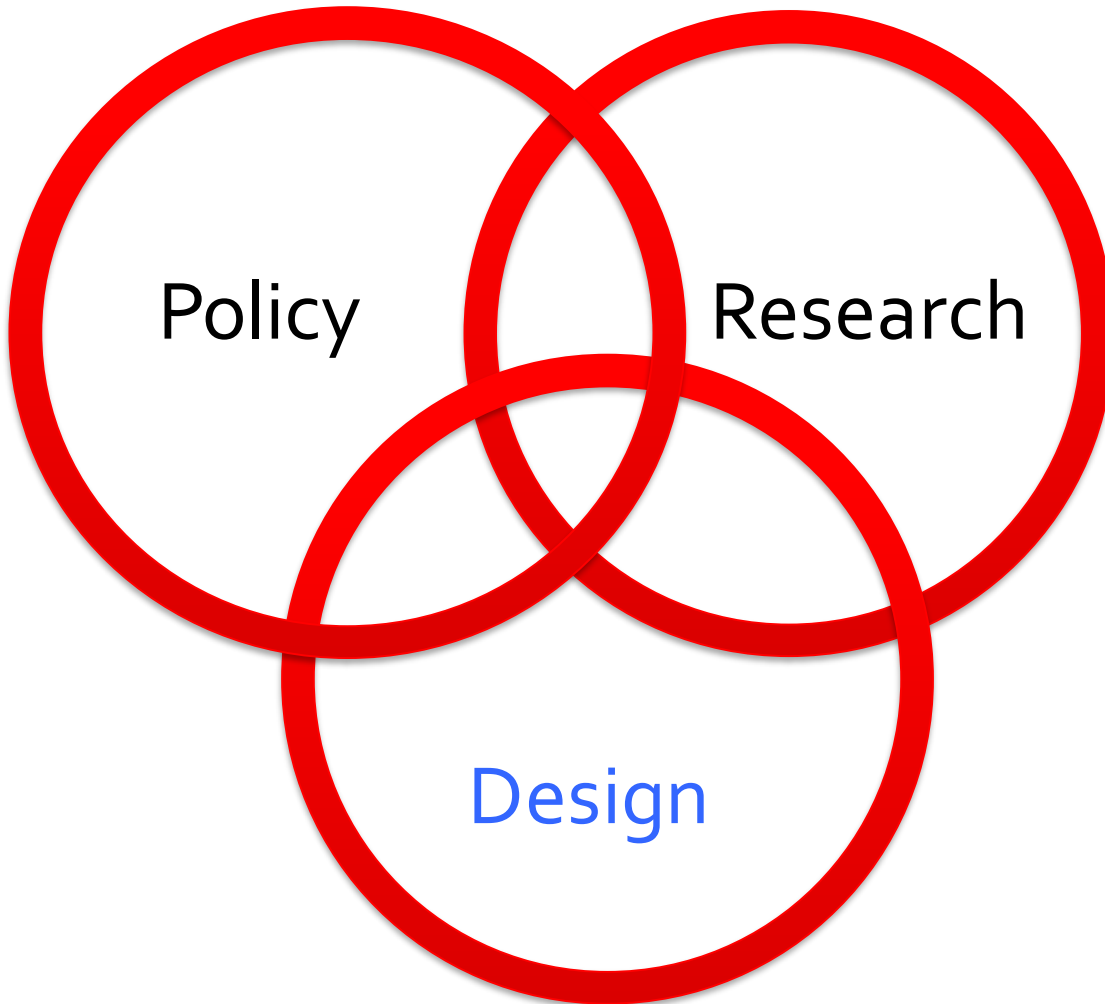
Complex Participatory Governance



Vrij vertaald naar
Fung A. 2006. Varieties of Participation in Complex Governance. *On Public Administration Review*, Vol. 66 (December 2006): 66-75.



Chief Science Officer





**Gathering
Research**

**Matching
People**





**Publishing
Platform**

Inspiration and Advise




Openresearch.amsterdam

Collectie (2) Economie 	Collectie (2) Grond en Ontwikkeling 	Collectie (4) Verkeer en Openbare Ruimte 	Collectie (5) Ruimte en Duurzaamheid 
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Collectie (2) Wonen 	Collectie (2) Kunst en Cultuur 	Collectie (2) Parkeren 	Collectie (3) Projectmanagement-bureau 
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Collectie (4) Ingenieursbureau 	Zoekopdracht (85) Keyword (organisatie): Cluster Ruimte en Economie 
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Collectie (9) Stad in Balans 
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Onderzoek 2017 Wonen

Kees Dignum, Gozewijn van Bergenheengouwen, Vera Berkers

Onderdeel van
Onderzoek 2017 Gemeente Amsterdam
Wonen

Amsterdam is een geweldige stad om te wonen. Vanwege de grote variatie aan banen, voorzieningen, cultuur en diversiteit van mensen, maar ook vanwege de rijke architectuur trekt de stad jaarlijks veel nieuwe mensen aan die hier willen werken en wonen.

Dat is een gegeven dat kansen biedt voor de ontwikkeling van de stad. De eenheid Wonen funktioneert als het platform voor wonen en stedelijke vernieuwing. Zij werkt voor de hele stad, in nauwe samenwerking met de bestuurscommissies en de uitvoering.

Meer informatie



Artikel	Artikel	Artikel	Artikel
Wonen in Amsterdam 2017 Samen met de Amsterdamse Woningcorporaties en stadsdelen doet de...	Monitor Programma Huisvesting Kwetsbare Groepen Maandelijkse inzicht in aanbod en vraag per doelgroep. Het realiseren...	Dashboard Leefbaarheid Het Dashboard Leefbaarheid geeft de leefbaarheidsgegevens uit 'Wonen'.	Toeristische verblijf van woonruimte Met de gemeenteraad is afgesproken dat het College elk jaar de...



Stad in Balans

Claatie van Elte, Hilde de Ridder


Onderdeel van
de Leefbare Toekomst
Ruimte en Economie

In deze collectie staat het onderzoek dat is en wordt uitgevoerd binnen het programma Stad in Balans en gerelateerd onderzoek.

Stad in Balans is een programma van de gemeente Amsterdam, dat laat zien op welke manieren de stad werkt aan het grip houden op de groei. Vier lijnen staan centraal:

- meer kwaliteit en diversiteit van het winkelen- en voorzieningsaanbod;
- vermindering van overlast en stellen van grenzen;
- afspelen van bezoekers over de stad en regio;
- creëren van meer ruimte op straat in drukke gebieden

Meer informatie



Artikel	Artikel	Artikel	Artikel
De impact van de bezoekers-economie op Amsterdam (oktober 2017)	Stand van de Balans (juni 2016) De Stand van de Balans heeft alle over het gebruik van de stad en de...	Sturen op een divers winkelaanbod (maart 2017) Bezoeken en ondernemers hebben belang bij een divers aanbod van...	Evaluatie experimenten Stad in Balans De experimenten betreffen het optreden van bezoekers over de stad en...



Matching:

- Social Sciences
- Natural sciences
- Law



Significant encounters



Shared study



Experiment - Pilot – Living lab



PhD Trajectory



Shared proposal



Societal impact happens in all steps of scientific process:

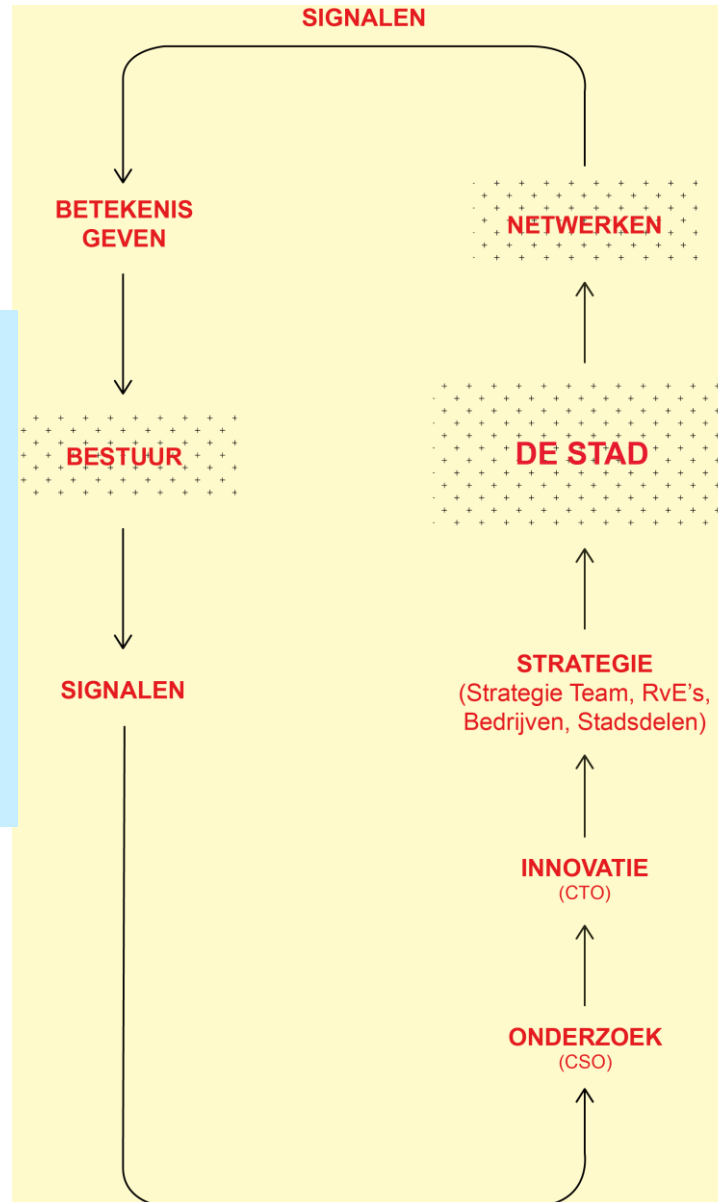


- Agenda setting
- Research design
- Methodology
- Executing research
- Analyses
- Design and engineering
- Publishing in different ways for different audiences
- Monitoring
- Evaluating
- Agenda setting



Making blue prints for messy cities

Evidence
Based
Policy
Making



Science
for
Solutions
In
Cities
Complex
Context



JRC SCIENCE HUB COMMUNITIES

The European Commission's science and knowledge service



You're out of Dropbox space!

European Commission > JRC Science Hub > Communities > City Science Initiative



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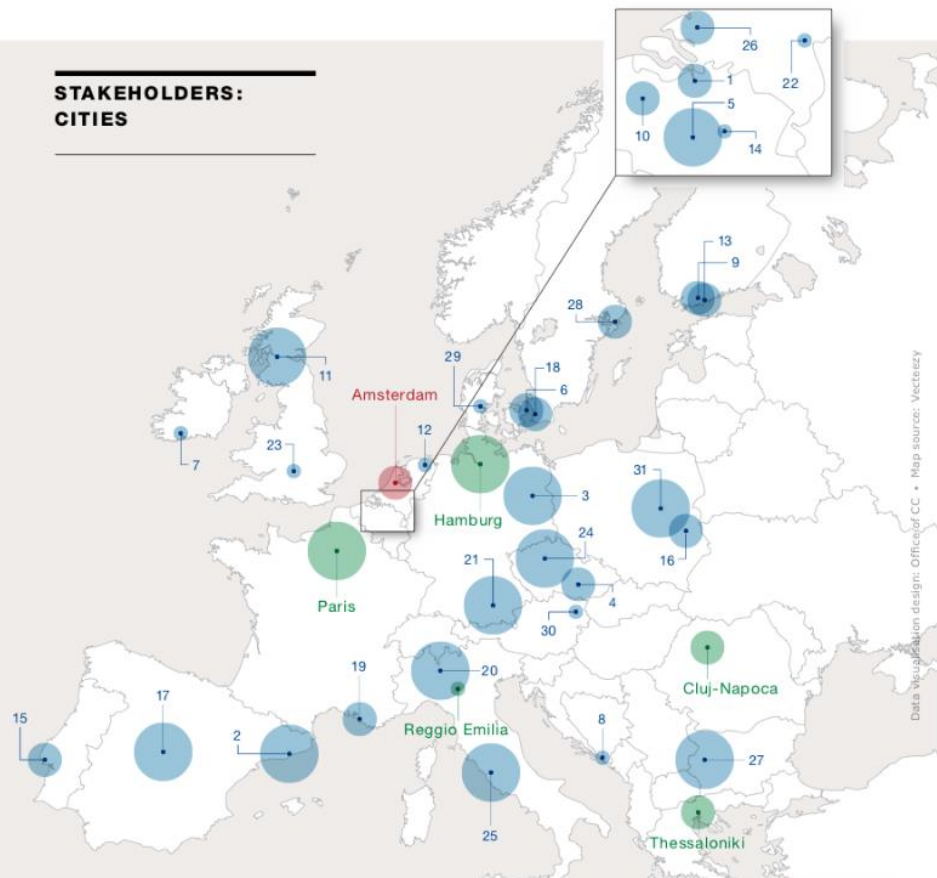
Welcome to the City Science Initiative

Many key societal challenges in Europe are intrinsically urban. Science and Innovation can help to address these challenges. The City Science Initiative provides an opportunity for cities, city networks, experts and the services of the European Commission to reinforce their cooperation and strengthen the science and policy interface.

Are you a researcher interested in bridging the science-policy gap?

CONTACT US!

STAKEHOLDERS: CITIES



CITY SIZE BY POPULATION



INITIATING CITY

Amsterdam

LEADING CITIES

Reggio Emilia
Cluj-Napoca
Thessaloniki
Hamburg
Paris

PARTICIPATING CITIES

7 Cork	1 Antwerp	26 Rotterdam	2 Barcelona
8 Dubrovnik	4 Brno	28 Stockholm	3 Berlin
12 Groningen	6 Copenhagen		5 Brussels
14 Leuven	9 Espoo		11 Glasgow
22 Nijmegen	10 Gent		17 Madrid
23 Oxford	13 Helsinki		20 Milan
29 Vejle	15 Lisbon		21 Munich
30 Vienna	16 Lublin		24 Prague
	18 Malmö		25 Rome
	19 Marseille		27 Sofia
			31 Warsaw

STAKEHOLDERS: NETWORK

100 Resilient Cities

Helping cities around the world become more resilient to physical, social, and economic shocks and stresses.

Covenant of Mayors

The Covenant of Mayors is the world's largest movement for local climate and energy actions.

European Network of Living Labs (ENOLL)

The European Network of Living Labs (ENOLL) is the international federation of benchmarked Living Labs in Europe and worldwide.

European Regions Research and Innovation Network (ERRIN)

Brussels-based network supporting regional and local stakeholders to develop their innovation ecosystems and to enhance research and innovation capacities.

European Union Knowledge Network (EUKN)

The European Urban Knowledge Network (EUKN) is the only independent EU Member State driven network in the field of urban policy, research and practice.

EUROCITIES

EUROCITIES is the network of major European cities; its members are the elected local and municipal governments of major European cities.

UN Global Sustainability Index Institute Foundation (UNGSII)

The UNGSII FOUNDATION was created to assist and accelerate the implementation process of the UN Sustainable Development Goals (SDGs).

ICLEI

ICLEI – Local Governments for Sustainability is a global network of more than 1,750 local and regional governments committed to sustainable urban development.

International Urban Cooperation

The International Urban Cooperation (IUC) programme, funded by EU, supports the achievement of bilateral policy objectives, as well as major international agreements on urban development and climate change.

JPI Urban Europe

JPI Urban Europe was created to address the global urban challenges of today with the ambition to develop a European research and innovation hub on urban matters and create European solutions by means of coordinated research.

ThinkNature

ThinkNature project, part of Horizon 2020, aims to develop a platform that supports the understanding and the promotion of Nature-Based Solutions.

UNICA: Network of Universities from Capitals of Europe

UNICA is an institutional network of 53 universities from 37 capital cities of Europe.

URBACT

URBACT is a European exchange and learning programme promoting sustainable urban development, helping cities to develop pragmatic solutions that are new and sustainable and that integrate economic, social and environmental urban topics.

STAKEHOLDERS: EUROPEAN COMMISSION

DG CLIMA

Leads the European Commission's efforts to fight climate change at EU and international level.

DG CNECT

Responsible to develop a digital single market to generate smart, sustainable and inclusive growth in Europe.

DG ENER

Responsible for the EU's energy policy: secure, sustainable, and competitively priced energy for Europe.

DG ENV

Responsible for EU policy on the environment.

DG GROW

Responsible for EU policy on the single market, industry, entrepreneurship and small businesses.

DG MOVE

Responsible for EU policy on mobility and transport.

DG Research & Innovation

Responsible for EU policy on research, science and innovation, with a view to help create growth and jobs and tackle our biggest societal challenges.

DG REGIO

Responsible for EU policy on regions and cities.

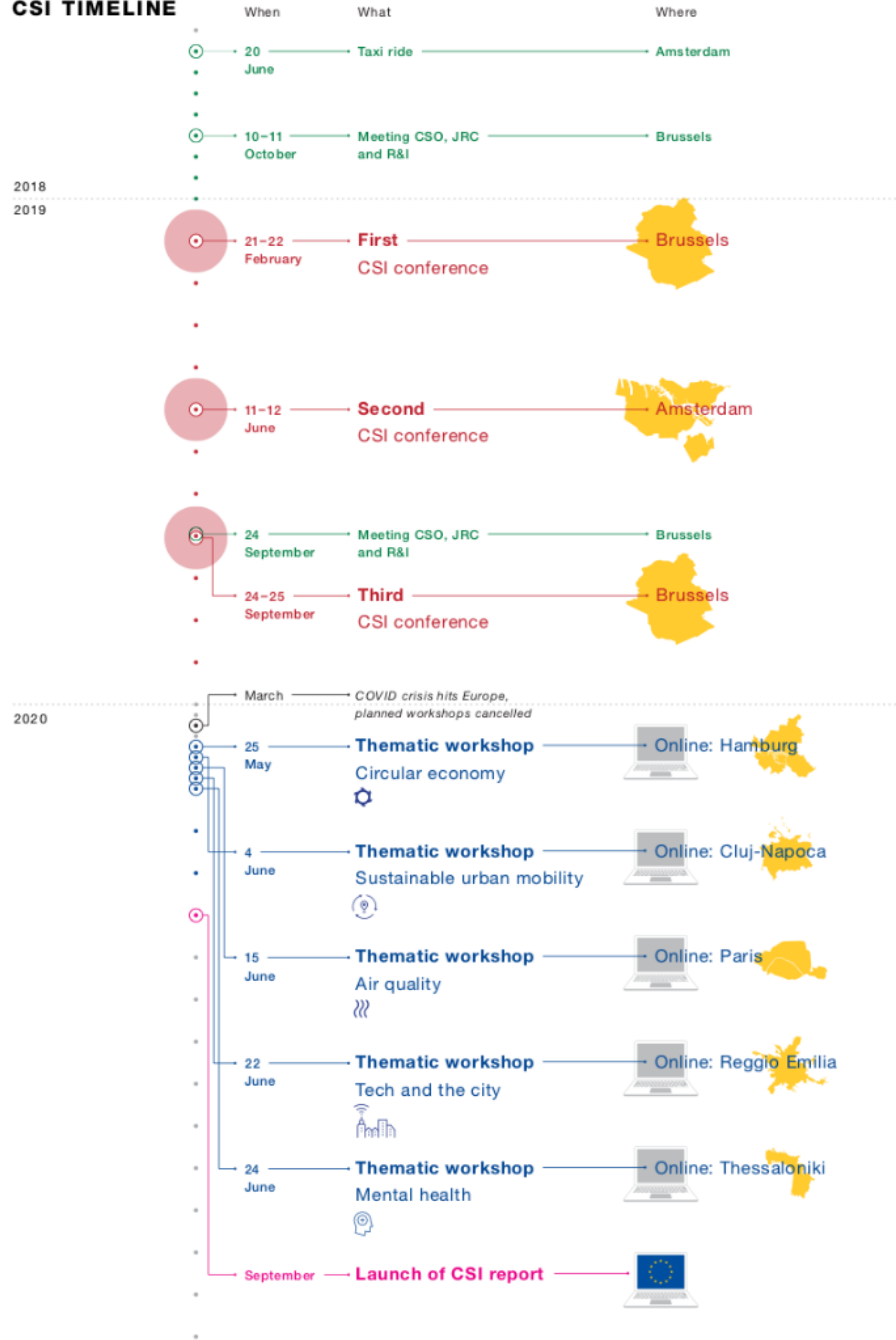
EASME

Manages several EU programmes in the fields of SME support & innovation, environment, climate action, energy and maritime affairs.

JRC

The European Commission's science and knowledge service which employs scientists to carry out research in order to provide independent scientific advice and support to EU policy.

CSI TIMELINE





Paris



Hamburg

Second CSI Conference
Institute for Advanced
Metropolitan Solutions,
Amsterdam

Cities map and reflect on how they locally organize collaboration between municipalities, universities and other stakeholders in the region. policy-research interface and collaboration.



GOVERNANCE AND FINANCE OF CITY SCIENCE

Cities are not only in need of more research on the urban challenges they are facing, they are also in need of a better connection with science and a better understanding of available research. To bridge the gap between research institutions and local government one has to take into account their different needs: where universities insist on independence, local governments prioritize political responsibilities and specific solutions. This also means that definitions of 'academic excellence' in universities provide targets which are not directly commensurable with the targets of local government, where academic research is judged by its societal impact, which is difficult to measure. Governance also implies financing. Even though both local government and universities are funded by public money, financing happens through differing channels. It is therefore often difficult to find a common ground. Financial instruments should allow more space for research that is relevant to local challenges. Also, having a single point of contact for research cooperation in local governments can contribute to finding a common ground.

LEARNING AND COMMUNICATION BETWEEN SCIENCE AND POLICY

Universities and local government make use of differing languages, processes and quality assessments. In addition to this, there are communication-issues between different departments that are involved, in both governments and universities. Therefore it is difficult to come to better cooperation and effective communication is a given bottleneck issue. Also, it requires substantial orchestration and investments of human capital to design effective and in-practice collaboration between policy and research. How to deal with the vast supply of research and how to disclose it effectively? It is also not always considered a priority to work together, both in government as in academics. One of the ways to come to better cooperation between science and policy, is to better understand existing best practices. One of the aims of the City Science Initiative is to collect these best practices and to promote the importance of city science, amongst others on the political level.

A NEED FOR A NEW RESEARCH PARADIGM ON CITY SCIENCE

The City Science Initiative could develop into a Community of Practice of City Science Officers: a community of people sharing experiences from their work practice and developing new knowledge from this cooperation, similar to the way in which scientists form communities of practice. The community of practice can develop a shared language and shared concepts to establish a new research paradigm for city science: fundamental research across the board, including both alpha beta and gamma sciences. This scientific angle can also contribute to the elaboration of qualitative analysis, identification of knowledge gaps, elaboration and improvement of human-centred co-creation processes aiming at situating citizens at the centre of urban policy-making. Furthermore, what is the relation between the university and the city and how can knowledge and data be shared? At this point, only few researchers are trained to answer these types of questions. This new form of research should be transdisciplinary and aim at urban societal impact. City science is distinct in its methodologies, standardization, assessment valorisation and focus on agenda setting and impact.



Warsaw



Cluj-Napoca



Lublin



Reggio Emilia



Amsterdam

SCIENCE-POLICY QUESTIONS



CIRCULAR ECONOMY

Hamburg

[Full programme on page 60](#)

- Circular value chains and waste flows optimisation.
- Administrative burden reduction and inter-territorial cooperation for circular economy.
- Digital transformation to improve the effectiveness of circular economy action.

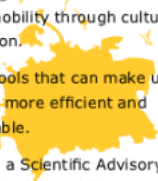


SUSTAINABLE URBAN MOBILITY

Cluj-Napoca

[Full programme on page 61](#)

- The most effective methods and tools to foster the shift of people to more sustainable transport modes in urban contexts.
- Engaging the citizens in sustainable urban mobility through culture and innovation.
- Digital tools that can make urban mobility more efficient and sustainable.
- Forming a Scientific Advisory Board on sustainable mobility, creating a process of knowledge exchange using data-based evidences.

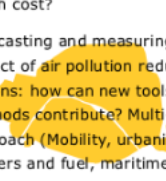


AIR QUALITY

Paris

[Full programme on page 62](#)

- How to integrate emerging questions into regulatory air quality monitoring? Emerging pollutants/ impacts on human health or environment/which tools and at which cost?
- Forecasting and measuring the impact of air pollution reduction actions: how can new tools and methods contribute? Multi-sectoral approach (Mobility, urbanism, wood heaters and fuel, maritime, ...).
- How to involve citizens through engagement, education and communication.



SCIENCE-POLICY QUESTIONS



TECH AND THE CITY

Reggio Emilia

[Full programme on page 63](#)

- Provision of digital infrastructures in underserved neighbourhoods.
- Rethinking of housing units as a social infrastructure that combine personal life with work, education and healthcare for households.
- Districts as meta-neighbourhoods (i.e. agglomeration of two or more neighbourhoods) and thus as social and economic collective urban business units where local ingenuity is leveraged to define a strategic plan sanctioned in public-private-community partnerships for the use of science and technology for urban sustainable development.
- Use of science and technology to preserve or leverage local industrial and commercial units and transform them into lynchpins for urban sustainable development (e.g. social innovation centres and innovation hubs for new demand responsive, tailor made and flexible urban services and infrastructure).

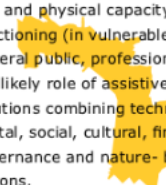


MENTAL HEALTH

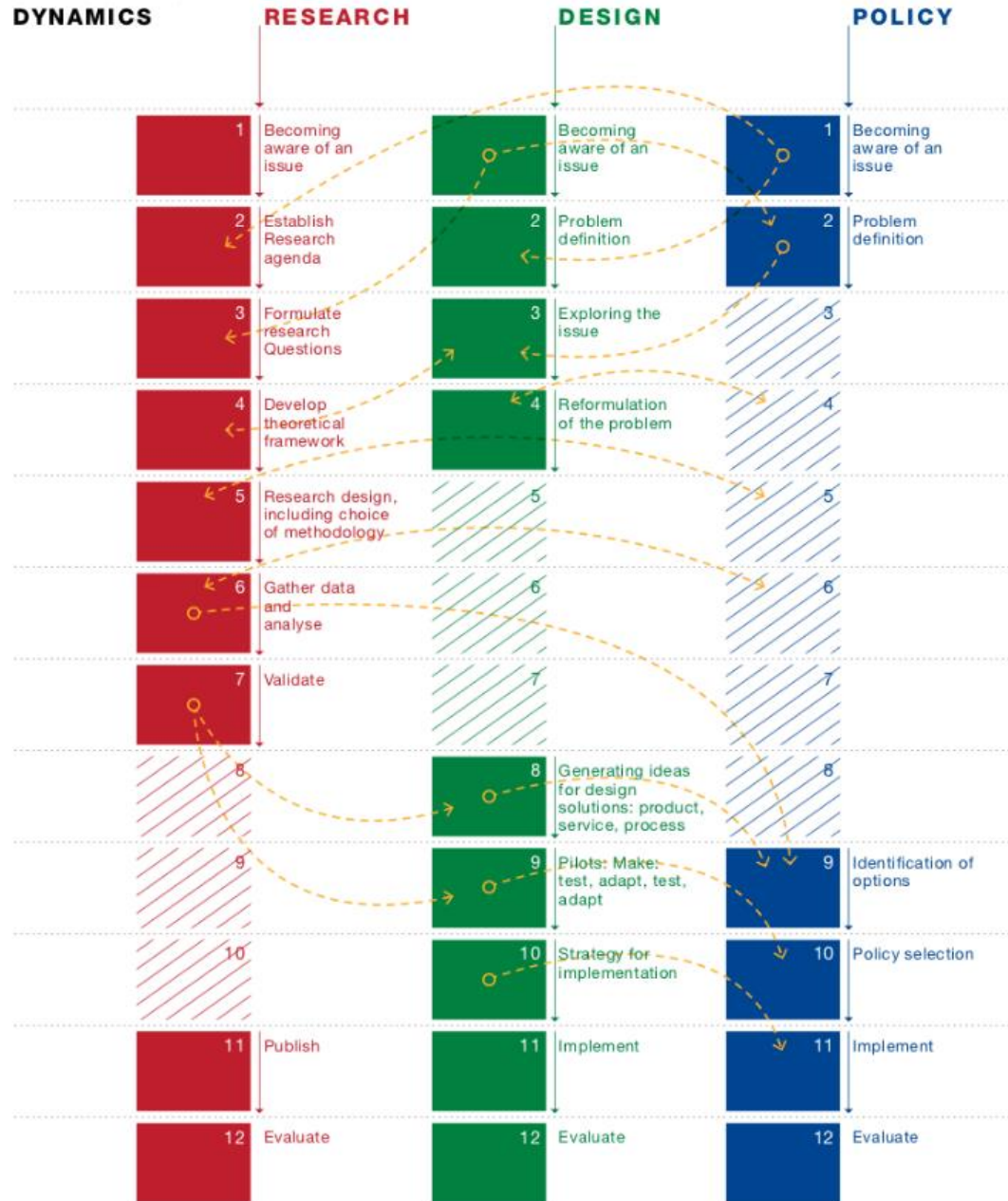
Thessaloniki

[Full programme on page 64](#)

- How can we optimise access to mental health and well-being infrastructures in big and small Cities (insufficient access, shortage of staff, shortage of residency slots, ways and levels of financing).
- Methods, tools and data to properly coordinate the provision of mental health and well-being and psychiatric/social care services in Cities (including social isolation in case of pandemics).
- Engagement to maximise resilience of cities (including resilience and preparedness in case of pandemics)? Is there a role for co-creation and co-design approaches? What is a human-centred city in terms of mental health and well-being?
- Mental health and diversity needs in Cities confronting COVID19 or other pandemic and recovery measures for people and economy. City-wide social campaigns?
- Effects of social distancing and isolation due to quarantine in cognitive and physical capacity and brain functioning (in vulnerable groups, general public, professionals) and the likely role of assistive innovative solutions combining technological, digital, social, cultural, financial, governance and nature-based innovations.



CITY SCIENCE DYNAMICS



CITY SCIENCE FOR URBAN CHALLENGES

City Science Initiative
2020



Pilot assessment and
future potential of
the City Science Initiative

2019-2020





Thank you

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