The European Commission's
100 Intelligent Cities Challenge

18th November 2020

ICC Advisory Board

1st meeting

European Commission

The Intelligent Cities Challenge is funded by COSME, the EU programme for the Competitiveness of Enterprises and SMEs

Agenda

15.00 - 15.10	Introduction and tour de table
15.10 - 15.20	Overall policy context (EU Green and Digital Transition and Recovery and Resilience Facility) and the urban dimension
15.20 - 15.25	Objectives, methodology and time plan of ICC
15.25 - 15.40	Post COVID-19 challenges and local recovery plans + Q&A
15.40 - 16.45	Discussion on ICC themes and key EC initiatives; 3 min presentation followed by 10 min discussion per theme • Green Economy and Local Green Deals including Renovation Wave, Affordable Housing Initiative and the New European Bauhaus • Citizen participation and digitisation of public administration • Upskilling and Reskilling • Supply chains, logistics and the economics of mobility covering also localisation of Supply chains and food systems • Green and Digital Transition in Tourism
16.45 - 17.00	Next steps: working methods and time plan

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15:00
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15:10

Introduction and tour de table

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Mandate of the Advisory Board

- Advise on the **overall direction** of the ICC action, including of the advisory services offered to the cities, the networking and knowledge exchange between cities and the latest policy, technological and scientific developments

- Have an **oversight of the project execution** and offer **strategic guidance** for the implementation

- Provide ideas to **maximize the uptake** of ICC results and their dissemination among relevant stakeholders

- **Help bridge and connect to relevant European and international initiatives** and programmes when necessary

Membership of the Board is on a **voluntary basis**; there is **no contractual obligation** to deliver information to the project or to attend meetings

All Board members are entitled to claim reasonable **expenses with respect to travelling** to meetings, although a virtual format is foreseen in light of COVID-19 for 2020 and 2021

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ICC Advisory Board members*

Name	Organisation	Position	Participation
Alice Charles	World Economic Forum	Lead Cities, Infrastructure & Urban Services	Excused
Bob Bennett	Cities Today Institute	Chair	
Carlo Ratti	MIT SENSEable City Lab	Professor of Urban Technologies and Planning Director, SENSEable City Lab	Excused
Christophe Rouillon	European Committee of the Regions, Recovery and Resilience Facility, Coulaines, Association of French Mayors	Member, Rapporteur, Mayor, Vice-President	
Daniel Gonzalez-Bootello	Smart City Cluster	Director General	
Emilia Saiz	United Cities and Local Government	Secretary General	
Frank Lee	European Investment Bank	Head of Division, Advisory Services	
Leonie van den Beuken	Amsterdam Economic Board	Programme Director of Amsterdam Smart City	
Margit Tünnemann	German Federal Ministry of the Interior, Building and Community	Head of Division SW III 2 – Smart Cities	
Martina Otto	United Nations Environment Programme	Head of Cities Unit & Head of Secretariat, Global Alliance for Buildings and Construction, Economy Division	Excused
Soo-Jin Kim	OECD Centre for Entrepreneurship, SMEs, Regions and Cities	Head of the Urban Policies and Reviews Unit & Deputy Head of the Cities, Urban Policies and Sustainable Development Division	

*Discussions are ongoing with representatives from the Liveable Cities, Singapore to join the advisory board

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15:20

Overall policy context and the urban dimension

Ulla Engelmann, Head of Unit for Social Economy, DG GROW, European Commission

Recovery Plan for Europe

Supporting Member States to recover, repair and emerge stronger from the crisis

Kick starting the economy and helping private investment to get moving again

Learning the lessons of the crisis and addressing Europe's strategic challenges

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Next Generation EU

	Regions, companies and citizens	Companies	Health sector	Global partners
WHO BENEFITS				
	Twin green and digital transitions			
INSTRUMENTS	• European Recovery and Resilience Facility • REACT-EU (cohesion policy) • Reinforced cohesion and rural development • Reinforced Just Transition Mechanism	• Solvency Support Instrument • Strengthened InvestEU • Strategic Investment Facility	• New Health Programme • Reinforced Horizon Europe • Reinforced rescEU	• External Action Guarantee • European Fund for Sustainable development
WHO INTERVENES	European Commission & Member states	European Investment Bank & other public finance partners	European Commission	European Commission & international organisations

Source: European Commission

- **€750 billion** total

- Recovery and Resilience Facility – **€672.5 billion**

- Just Transition Mechanism – **€150 billion** over 2021-2027

- InvestEU – EU budget guarantee of **€38 billion**

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Next Generation EU flagships

FLAGSHIP AREAS FOR INVESTMENTS AND REFORMS

POWER UP
CLEAN TECHNOLOGIES AND RENEWABLES

RENOVATE
ENERGY EFFICIENCY OF BUILDINGS

RECHARGE AND REFUEL
SUSTAINABLE TRANSPORT AND CHARGING STATIONS

CONNECT
ROLL-OUT OF RAPID BROADBAND SERVICES

MODERNISE
DIGITALISATION OF PUBLIC ADMINISTRATION

SCALE-UP
DATA CLOUD CAPACITIES AND SUSTAINABLE PROCESSORS

RESKILL AND UPSKILL
EDUCATION AND TRAINING TO SUPPORT DIGITAL SKILLS

Convening the power of the local ecosystem

European cities will emerge stronger if they build up their **innovative local ecosystems** bringing together **public and private stakeholders** to address the huge societal, economic and environmental challenges.

INDUSTRY, CLUSTERS & EREK

Businesses
European Resource Efficiency
Knowledge Centre
Green Tech, ICT and Smart City
Clusters

SOCIAL ECONOMY & ESER

European Social Economy Regions
Social Economy Canvas

INTELLIGENT CITIES CHALLENGE

Urban ecosystems: Local and Regional
Authorities, Citizens, Businesses,
Education and Training Organisations,
Technology centres, Fablabs

What is the Intelligent Cities Challenge?

The Intelligent Cities Challenge (ICC) is an EU initiative that helps 136 cities leverage cutting edge technologies to lead a Green, Smart, Sustainable Recovery and Social resilience. This will help cities to improve the quality of life and create new opportunities for their business communities.

ICC cities receive strategic one-to-one guidance and expert support, access to advisory and city networks (European and international), and capacity building tools.

The ICC helps cities to:

- Foster the local public-private ecosystem joining up all city stakeholders
- Assess local needs, strengths and shape ambitious vision: conduct performance assessments, define strategic goals and implementation roadmaps
- Leverage cutting edge technologies to bring innovation and accelerate the city's transition
- Learn from peer cities and mentors and engage in long-lasting collaborations: EU marketplace for city solutions and joint investments/procurements

INTELLIGENT
- Skills and employment
- E-Government
- Open data

SOCIAL
- Re-skilling
- Healthcare & safety
- Crisis management

GREEN
- Mobility
- Renewable energies
- Clean industry
- Green manufacturing

Participants in the ICC programme

The ICC involves a total of <u>136 EU and international cities</u>, covering:

Core cities

EU and international core cities who are the main beneficiaries on the programme, consisting of three groups:

- incumbent cities who previously participated in the preceding Digital Cities Challenge (DCC)
- new applicant cities who will participate in the ICC for the first time
- 5 international core cities for select involvement during the implementation phase

Mentor cities

EU and international mentors experts with a proven track record in at least one thematic area who provide mentor support and drive action:

- 10 EU mentors: Aarhus, Amsterdam Metropolitan Area, Antwerp, Barcelona, Espoo (in collaboration with Tampere and Turku), Hamburg, Milan, Nice, Porto and Rijeka
- 5 international mentors: Busan, Greater Phoenix Connective, Medellin, Singapore and Toronto

Time plan - the ICC takes cities on a transformation journey over four stages

Overview

The ICC provides support over **4 main phases.** Cities on the DCC engage in an additional 'Activate and Accelerate' phase before the start of the programme, which provides time to recap on their Digital Cities Challenge (DCC) journey and restart activity.

Each phase has a **distinct purpose that follows on from the last**, and works together to deliver a transformation

Journey at a glance

	July 2020 - Start of programme for DCC cities		**September 2020** - Start of programme for new ICC cities				**Nov 2022** – End of programme
Phase of the programme		Activate & accelerate		Preparation & assessment	Ambition & roadmap	Implementation	Review & way forward
What cities will achieve		Activate city's stakeholder ecosystem, reflect on the DCC and define goals for the ICC		Find out where a city is, where it should go and who should be involved to get there	Develop a concrete plan to achieve improvements, collaborating with the community; push action with immediate benefits	Get "big moves" done and see results	Measure success, and commit to keep connections and improvements going

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Transversal services

Participants will have access to a variety of transversal services

Transversal services are **cross-theme coaching opportunities available as needed to participants** during the ambition and road map, implementation, and review and way forward phases of the ICC

Participants and lead experts[1] can leverage transversal services to help cities **tackle common barriers and leverage local enablers**, including:

- Access to finance
- Innovation and social responsibility in procurement and business models
- Open data platforms

Accessible through transversal-specific online learnings and in-person coaching

Online learnings:

E-learnings, e.g., live sessions incorporating audience interaction via polls, live Q&A / discussion

Downloadable online toolkits for reference per topic

Select topics reinforced in-person:

In-city, with locally-relevant follow-up coaching **in lead expert meet ups**

Thematic Action Group discussions and workshops **in cross-city labs**

> **Post-covid recovery content will be provided across all transversal materials**

> Transversal services should be delivered with tailoring to a given city's major theme

1. Transversal services will be provided by non-thematic experts, but tailored to the theme in question

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Post COVID-19 challenges and local recovery plans + Q&A

COVID-19 challenges and local recovery plans

Cities have been in the forefront of the fight against the pandemic. They played a critical role in crisis response, recovery and rebuilding. Cities can emerge stronger from this crisis as the centers of social resilience and innovation. But this will need conscious policy choices for a green, digital and inclusive recovery.

Questions for the advisory board members:

1. How do cities assume their role and responsibilities in responding to the COVID-19 crisis and building back better? Can you share global city-response trends and notable examples?

2. How important is citizen engagement and the social economy actors in this effort?

3. How do cities influence the national recovery plans?

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Thematic tracks and key EC initiatives

ICC themes

Questions for the advisory board members:

1. Are you aware of on-going work and notable city initiatives in these areas that we could take into account as inspiration for the the ICC core cities? Could you in your capacity help to foster synergies with these initiatives?

2. Where should we look for best practice thematic collaborations across the world? Could you name three topics with the potential to achieve high-impact in a collaborative set-up (any shiny examples to showcase)?

3. Our mentors are one of the core assets of ICC, what should ICC do to motivate them to keep on sharing knowledge and benefit from ICC?

4. How to convene the power of cities and maximise their influence at cross-city, national and EU level?

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Thematic tracks – high level scoping

Green economy and local green deals

- Decarbonising **buildings**, e.g., renovation wave, retrofitting, green construction, affordable housing
- Decarbonising **transport**, e.g., electrification of mobility
- **Nature based solutions** e.g., green infrastructure, reforestation, urban farming, biofuels, BECCS
- **Climate resilience** e.g., against flooding, drought or heat waves
- Decarbonising industry, e.g., **green manufacturing**, CCS
- Decarbonising power, e.g., scaling up **renewable energy solutions**
- Managing **waste** and the **circular economy**

Citizen participation and digitisation of public administration

- **Citizen- and business-friendly public services**
- Enhancing **citizen and business participation** to e.g. new, democratic engagement tools
- Understanding city **stakeholder sentiment**
- Reducing **digital divide** of communities marginalised by a transition of digital services
- Driving local government digitisation **independent of national government** agenda
- Support **launching grassroots initiatives** by citizens and social actors

Upskilling and Reskilling

- Upskilling and reskilling of **workforce** for a green, digital and social transition – based on assessment of the real city needs, current shifts in socio-economic-environmental trends
- Mobilising and strengthening **skills-ecosystem** – educational institutions, industry and businesses, schools, academia, VETs, fablabs, research centres, industrial clusters
- Reduction of **skills gap and preparing the city for a better future**
- **Anticipation of new needs**: e.g. moving workforce from idle airport logistics chain to support super-market logistic chains

Supply chains, logistics and the economics of mobility

Disruption of supply chains
- **Improving supply chain resilience** post-COVID, inc. self-supply and resource independence e.g. for medication, food systems through better links to rural areas
- **Cross-city freight**, increasing the competitiveness of industrial **transport hubs** and flow through economic benefits, including ports, airports
- **In-city freight**, looking at last mile deliveries, freight consolidation, emission zones

Citizen mobility
- Driving **economic growth** through improved mobility
- **Reducing congestion**, improving experience of citizens on journeys in urban areas (inc. availability, convenience and affordability) by improving new and existing modes

Green and digital transition in tourism

- **Green and digital recovery of tourism**: Re-design the tourism sector
- **Support recovery**, especially through tailored support to SMEs
- **Invest in technologies** that will deliver innovative and the low-carbon tourism ecosystem
- **Foster data management and sharing between public and private tourism actors**
- **Diversify tourism offer** enhancing **tourists experience quality** (e.g. **cultural tourism**)
- Providing **safe and seamless tourism at destinations** for tourists, residents, tourism workers
- Facilitating the **interaction** and **integration** of the tourism sector within the ecosystem, increasing cross-sectoral cooperation and thus destinations' **competitiveness** at global level
- Improving the **empowerment of destinations** through comprehensive and efficient urban management, including **smart and sustainable tourism policies and promotion**

Thematic tracks – demand of cities*

Green economy and local green deals

47 core cities

7 mentor cities
Aarhus, Amsterdam Metropolitan Area, Busan, Hamburg, Nice, Greater Phoenix Connective, Singapore

Citizen participation and digitisation of public administration

42 core cities

8 mentor cities
Aarhus, Amsterdam Metropolitan Area, Antwerp, Barcelona, Busan, Hamburg, Rijeka, Porto

Upskilling and Reskilling

11 core cities

4 mentor cities
Amsterdam Metropolitan Area, Espoo (in collaboration with Tampere and Turku), Medellin, Rijeka

Supply chains, logistics and the economics of mobility

12 core cities

5 mentor cities
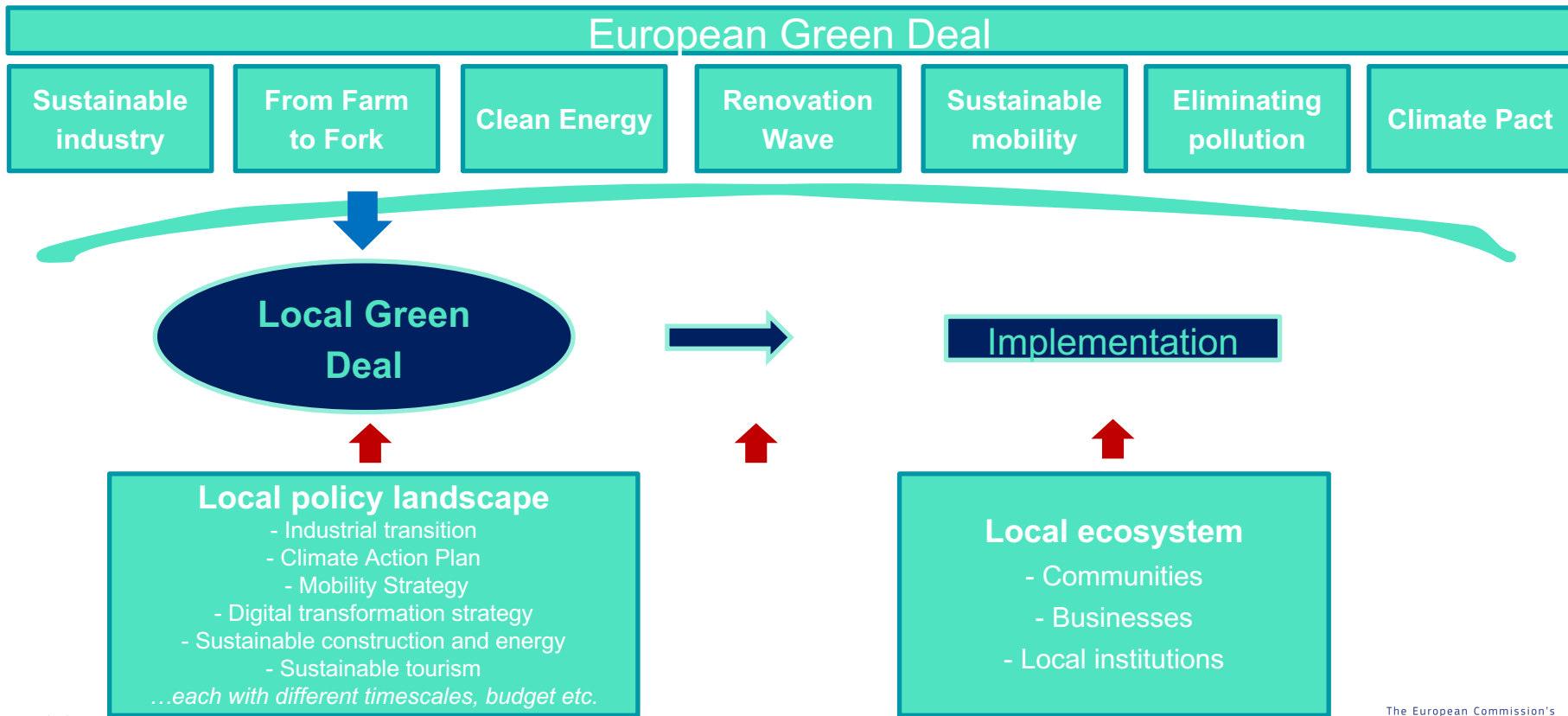Antwerp, Hamburg, Medellin, Singapore, Greater Phoenix Connective

Green and digital transition in tourism

17 core cities

3 mentor cities
Espoo, Tampere and Turku, Medellin, Nice

*The figures are preliminary as cities are currently providing the confirmation of their thematic tracks and experts; among the mentor cities, Milano and Toronto are to provide their thematic preferences

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EU Local Green Deals Movement

European Green Deal

| Sustainable industry | From Farm to Fork | Clean Energy | Renovation Wave | Sustainable mobility | Eliminating pollution | Climate Pact |

Local Green Deal → **Implementation**

Local policy landscape
- Industrial transition
- Climate Action Plan
- Mobility Strategy
- Digital transformation strategy
- Sustainable construction and energy
- Sustainable tourism
…*each with different timescales, budget etc.*

Local ecosystem
- Communities
- Businesses
- Local institutions

Local Green Deals - how the ICC can support

- The ICC provides a unique opportunity to **test and pilot** the concept of Local Green Deals (LDGs) with motivated cities, provide all ICC cities with **training, guidance and a methodology** for LGDs
- It can create **collaboration opportunities** between cities with similar LGDs. Thematic networks, thematic experts and lead experts to gather cities with similar goals and to operationalise their LGDs

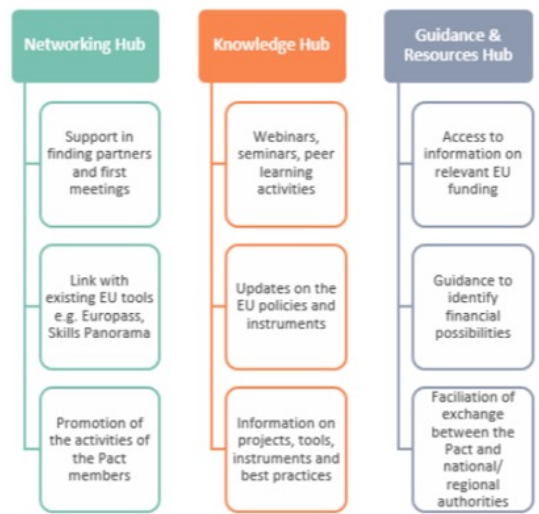| Description	Objectives	Design principles	Audience
• The LGD joins up a city's existing sustainability goals, aligning them with each other under the framework set by the European Green Deal Policy areas • The LGD builds on common principles that form the basis of cities' commitments	• Definition of LGDs containing targets by cities based on their needs, goals and policy context, building on the ICC journey • A movement of cities committed to implement local actions for environmental and social sustainability	• Provide cities with guidance to set up a LGD and plan of actions • Build on the ICC objectives and capitalise on the network of cities to facilitate learning through collaborations • Provide cities with digital tools and resources to mobilise stakeholders • Provide cities with monitoring tools to track progress • Organisation of a LGD Award	• ICC cities that decide to engage in the development and operationalisation of a Local Green Deal • Duration: Entire timeline of the initiative (and beyond)

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Upskilling and reskilling of people of working age

Apprenticeships

All types of skills

Large scale partnerships

- Major players in industrial ecosystems
- Public authorities
- Concrete investments in upskilling opportunities for employees in the company and in a whole value or supply chain

National/regional/local partnerships

- Employers
- Public authorities
- Stakeholders e.g. VET providers, PES, social partners
- Sectoral or regional focus on upskilling

Social Partners Arrangements

Tripartite agreements focus on upskilling and reskilling

Commitments

- Companies
- Stakeholders
- Commit to provide quality upskilling opportunities

Support from the EU

Networking Hub

- Support in finding partners and first meetings
- Link with existing EU tools e.g. Europass, Skills Panorama
- Promotion of the activities of the Pact members

Knowledge Hub

- Webinars, seminars, peer learning activities
- Updates on the EU policies and instruments
- Information on projects, tools, instruments and best practices

Guidance & Resources Hub

- Access to information on relevant EU funding
- Guidance to identify financial possibilities
- Faciliation of exchange between the Pact and national/regional authorities

European talent is at the heart of our industrial resilience and will be the engine for the recovery from the pandemic. As the twin green and digital transitions are gathering speed, we want to equip all Europeans with the right skills. The launch of the Pact for Skills is just the beginning of our European skills offensive.

**Commissioner Thierry Breton,
10 Nov. 2020**

European Commission

ICC ACTIONS ON CITIES OF EXCELLENCE IN RESKILLING

A network of Cities of Excellence for Reskilling

A set of best city practices in up/reskilling in the post-COVID era

Joining the Pact for Skills

"Cities of Excellence for Reskilling" and a "Cross-city Reskilling Programme"

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Thematic track: Citizen participation and digitisation of public administration

Topics covered with cities

Digital government user adoption

Information siloes

Rapidly evolving citizen behaviour

Understanding of citizens needs

Main common challenges faced by ICC cities [provisional]

- Addressing the **digital divide** – communities marginalised by a transition of digital services

- Clear split in the group between those interested in **digitisation of existing services** and those interested in the creation of **new, democratic engagement tools** (often also digital)

- The **biggest challenge was overcoming cultural and organisational challenges**, ranked no. 1 by 65% of participants

- Wide enthusiasm to develop new ways of **understanding city stakeholder sentiment**

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Thematic track: Supply chains, logistics and the economics of mobility

Topics covered with cities

Traffic Management	Supply chains and food systems resilience
Electric	Data Management & Platform
Shared Mobility	Connected Infrastructure
Delivery	Autonomous
Human-Powered mobility infrastructure	Public Transit

Main common challenges faced by cities [provisional]

- **Supply chain disruptions** and food systems
- Clear split in group between cities looking at **urban centres vs. industrial nodes**
- Traffic management and data management and platforms ranked top solutions, but generally **spread solution interest**
- **Effective solutions for smaller cities** that need capital-light approaches to better mobility

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Thematic track: Green and Digital Transition in Tourism

Topics covered with cities

Green and digital recovery of tourism

Safe and seamless tourism at destinations

Data management and data sharing

Interaction and integration of the tourism sector within the ecosystem

Diversification in tourism offer

Smart and sustainable tourism policies

Main common challenges faced by cities [provisional]

- **New products/experiences** based on the unique features of the territories to be developed
- **How decisions are taken**, including data gathering, data sources, open data policies, dashboards
- Demand for **greener, healthier and safer destinations**
- **Smart mobility** including the transport offer, sustainable mobility offer, multimodality and seamless transport

Discussion on ICC themes

ICC themes

Questions for the advisory board members:

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Next steps

Timeplan of the Intelligent Cities Challenge

Preparation & assessment *5 months*	**Ambition & roadmap** *4 months*	**Implementation** *19 months*	**Review & way forward** *2 months*
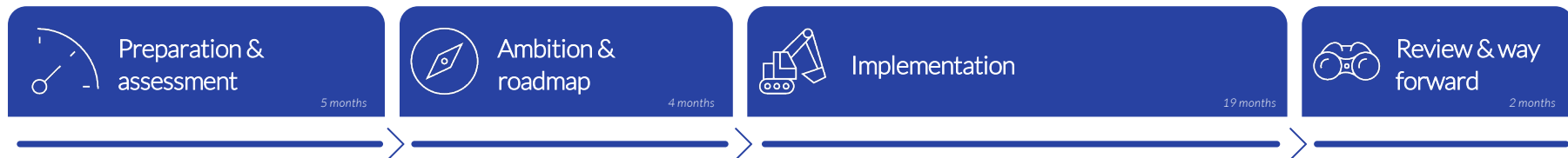
Advisory Board meetings

1st meeting	2nd meeting	3rd meeting	4th meeting
November, 2020	June 16th, 2021	November 17th, 2021	June 15th, 2022

Questions for the advisory board members:

1) Is the envisaged timeplan fine from your perspective?

2) Any preferences with regards to morning/afternoon calls?

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Thank you!

Backup

ICC Marketplace

ICC Marketplace

Introducing… the ICC Marketplace

- One location to showcase all the solutions developed in ICC cities.

- Explore cities, their solutions, and the underlying products that make solutions function.

- Search by relevant term or explore city challenges like "Supply Chains & Logistics" or "Green Industry" (to be confirmed).

- Discover validated, deployed solutions, and the multiple cities where they have been replicated.

- Showcase the best practices and ambitions for your city and region, with added exposure via the multi-project, global "CITYxCITY Catalogue".
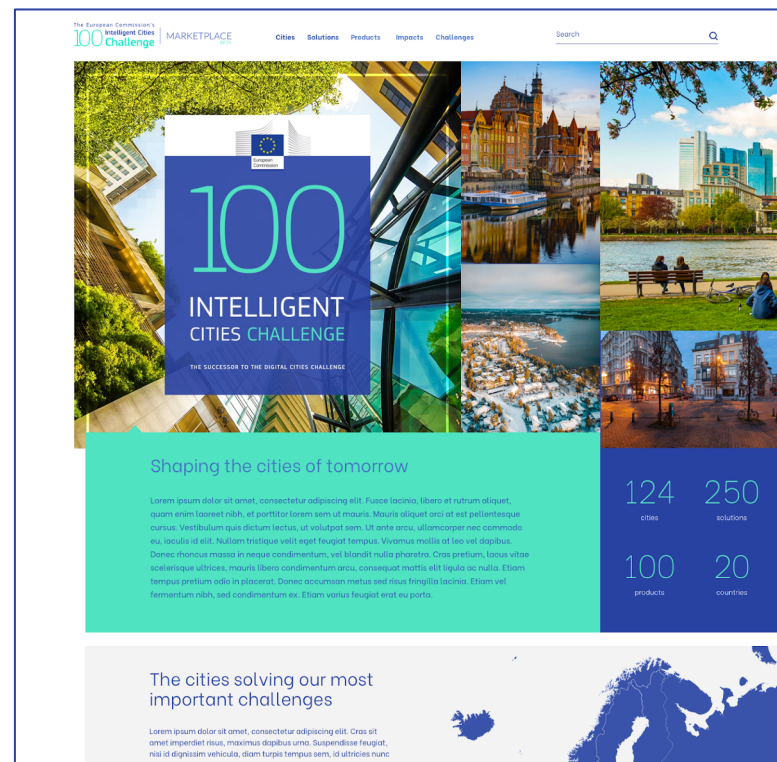
ICC Marketplace

Services Offered:

- Create a profile for your city and outline the ambitions you have for development/deployment of solutions (underway).

- Add solutions developed / deployed in your city and link to other cities where these solutions are in use.

- Showcase local enterprise by listing the products from local vendors which underpin listed solutions.

- Explore **best practices** throughout the network and discover possibilities for local challenges based on shared experience and technologies.

ICC participants are grouped into thematic clusters based on city priorities, self-assessments, and shared needs

Process of allocation of themes to EU core cities

Thematic content

1. Participants vote on key objectives

As participants fill out the EOI to join the ICC, they are given 16 goals and **asked to prioritise four goals**

2. ICC presents thematic clusters to participants for pre-selection

16 objectives have been grouped into **five thematic clusters**

During the 1st city lab, ICC will introduce the grouped thematic clusters. In the weeks that follow, participants will **prioritise a primary cluster** – **participants may also select a secondary cluster** provided they dedicate the necessary resources

3. Participants assess digital and advanced technology maturity and city performance

Each participant will conduct assessment of **city performance and local enablers in the first city assessment workshop.** The assessment includes **thematic specific issues** such as available technology infrastructure, key stakeholders, and any existing strategies

Assessments of technology maturity are then based on these themes, and discussed in the second city assessment workshop

4. Participants refine thematic cluster selection

Participants will **work with lead experts** to adapt their learnings from the assessments in order **to determine final primary** and **optional secondary thematic track**

5. ICC assigns participants to their thematic tracks

The ICC will share participants' **final thematic track** assignments based on a combination of:

- City preference
- Lead expert **feedback**

Time plan – major events and deliverables

| Preparation & assessment *5 months* | Ambition & roadmap *4 months* | Implementation *19 months* | Review & way forward *2 months* |

Major events

1st ICC City Lab	Mayors Summit	2nd ICC City Lab	3rd ICC City Lab	4th ICC City Lab	5th ICC City Lab	ICC closing event & Mayors Summit
28 September – 2 October, 2020	October 14, 2020	16-19 February, 2021	18-21 May, 2021	19-22 October, 2021	21-24 March, 2022	20-21 October, 2022

Deliverables
Indicative deadlines

| Assessment and strategy report (including "State of the City") 29 January 2021 | Roadmap and KPI targets 7 May 2021 | Short term initiatives 8 October 2021 | Mid-term initiatives ("big-moves") 11 March 2022 | Final report 7 October 2022 |

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