Solutions Labs Catalogue

A new opportunity for policy exchange
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Metropolis has been offering city-to-city exchanges for almost 40 years. These can include Mayors interacting in policy debates or experts engaging during technical visits.

The goal of our exchanges? Bring life to the ideas and solutions, tips and insights, as well concerns and challenges of our more than 150 members. They also highlight the unique value of our global network which brings together the world's largest metropolises.

To facilitate your involvement, we’ve created this catalogue listing 11 exciting opportunities for policy exchange—coordinated and moderated by your Secretariat General. In line with the January 2024 implementation of our new Strategic Action Plan 2024-2026, each Solutions Lab connects to at least one of Metropolis’ five thematic priorities:

1. Metropolitan Futures
2. Metropolitan Ecosystems
3. Cohesive Metropolises
4. Metropolitan Governance
5. Gender Equity
Why Solutions Labs?

The solutions lab model is Metropolis’ approach to policy exchange—bringing cities together around a common metropolitan challenge. Each lab will connect renowned topic experts with participants, leverage the experiences of the participating city, and complement them with external expertise and relevant examples.

In this catalogue, you can choose from 11 opportunities for policy exchange within the themes we’ve listed for 2024.

Please note that we will continue to propose new labs by adding them to subsequent editions of the catalogue. In the future, Metropolis may also receive proposals from members and partners who would like to propose and/or sponsor specific topics for Solutions Labs. Do not hesitate to come forward with your own suggestion or proposition in order for us to continue expanding the opportunities for mutual learning within our membership.
How to participate

This catalogue is intended for members’ departments responsible for Metropolis participation (usually International Relations).

The first step is to read the 11 proposals and discuss with relevant thematic services within their organisation to decide whether or not they would be interested and could commit to the requirements for participation. Once a member has identified an interest to participate in one or more Solutions Labs, they should fill out this form and return it to the Secretariat General as an expression of interest. The expression of interest neither commits the member to participate, nor ensures automatic registration for a Solutions Lab.

Once members have filled in their forms, the Secretariat General staff will individually contact the representatives of member cities that have declared an interest, and schedule conversations about expectations and requirements. The coordinator for each Solutions Lab at the Secretariat General will create the group of participants and will start conversations with the pre-selected members to expand information on both sides. After this process, there will be a full proposal group composition followed by formal invites to participate in each Solutions Lab. Once the selected members have accepted the formal invitation and the commitments that participation entails, the Solutions Lab will start, under the facilitation of Metropolis’ Secretariat General.
The limitations of the first generation of Smart City solutions to solve key issues such as housing scarcity, relations with citizens, social inclusion, or a fair green transition have become apparent. Cities are turning to new approaches, often powered by Artificial Intelligence. One of these new spaces that cities are looking into is the Metaverse or, as it is increasingly talked about, the Citiverse. The time is ripe for a conversation that brings metropolises together to share their experiences and thoughts on that space, and also to connect metropolitan governments to the international debates about the concept of Citiverse and the standards (technological, policy, ethical, and more) that revolve around it.

In close collaboration with the Metaverse Institute and the Guangzhou Institute for Urban Innovation, this Solutions Lab will function as a Citiverse Learning and Exchange Platform, with a carefully curated format to allow for meaningful sharing of experiences and challenges.

**Key Questions**

- What are the areas where working with the Citiverse is already useful to cities?
- What issues and approaches have already been tested or are being considered by cities to address in the Citiverse?
- Where is there potential for Citiverse approaches to help solve some key urban management challenges?
- What are the policy choices, risks, dilemmas and trade-offs?
SL1: Urban Governance in the Metaverse

**Target Participants:** Chief Information Officers, Data Policy Managers, and other positions connected to data, citizen engagement, and strategy.

**Activities:** Online discussions around city presentations in addition to one onsite workshop to present some of the results in Guangzhou, China.

**Commitment:** Participants should commit to participating and contributing, including presenting their own experience after coaching and preparation, in the online sessions. They will all be welcome to participate in person in Guangzhou, but Metropolis can only guarantee financial travel support for a small number of participants. Participation in the onsite meeting is recommended, not required.

**What is included?** Cities participating in the online sessions will receive support to prepare presentations and facilitation of both sessions and other exchanges.

**Estimated Timeline:** Online meetings and onsite session in starting in Quarter Two 2024, onsite meeting for some of the participants later in the year.
SL2: Metropolitan Management and Artificial Intelligence

Metropolises around the world are implementing Artificial Intelligence (AI) solutions for the everyday management of key aspects of urban life. For instance, cities can stay ahead of traffic jams with the help of algorithms that can predict and respond to real-time events. These AI-powered systems can also analyse vast amounts of data from sensors, cameras and satellite imagery—identifying patterns and trends that provide crucial insights for urban and territorial planning and decision-making. **AI also holds the promise of more efficient and responsive public administration offering better services to all city inhabitants.**

The advent of widely-available generative AI opens up a new realm of possibilities for metropolitan governance. However, **as AI becomes more deeply embedded in city operations, it also brings with it a range of ethical, societal and regulatory concerns.** As AI continues to evolve, cities must stay at the forefront of its development and implementation.

**Key Questions**

- What are the most efficient, reliable and replicable solutions already in place?
- How are metropolises managing the ethical and other risks of widespread Artificial Intelligence use, and embed them in public procurement?
- How are metropolises preparing to use generative Artificial Intelligence in public administration?
- How can we ensure that AI solutions are fair, unbiased and transparent?
- How can we protect privacy and ensure data security?
- How can we use AI to improve sustainability?
SL2: Metropolitan Management and Artificial Intelligence

**Target Participants:** City and Metropolitan Managers, Chief Information Officers, Chief Innovation Officers, Data Directors and other positions connected to data, information and strategy. Authorities that are Metropolitan in nature and that operate across municipal limits are particularly encouraged to take part.

**Activities:** Three online discussions between cities in addition to an onsite workshop and public presentation coinciding with Smart City World Expo Congress in November 2024.

**Commitment:** Participants should commit to participating and contributing, including presenting their own experience, in the online sessions. They should plan to participate with at least one person for two days, and to cover airfares to Barcelona, Spain for the onsite meetings.

**What is included?** For one representative per city participating in the online sessions: accommodation in Barcelona for three nights, one entry pass to the Smart City World Expo Congress 2024, breakfast and lunches during the onsite meetings.

**Estimated timeline:** Online meetings starting in Quarter Two 2024, onsite meetings during the week of the Smart City World Expo Congress 2024 (4-8 November 2024).
More sustainable, inclusive and resilient mobility is a key goal for major metropolises and metropolitan areas worldwide. Sustainable mobility relies on environmentally friendly and gender inclusive transport solutions as drivers for wealth and welfare creation. For example, decarbonized transport technologies help to create greener and more resilient cities, and to increase the contribution of public transportation to climate goals. The implementation of those technologies for public car fleets will help cities’ administration play a crucial role in reducing their greenhouse gas emissions while improving air quality in the urban areas.

This exchange will focus on the entire value chain that supports the transition to cleaner technologies through the electrification of public transport vehicles, their advantages and their challenges.

**Key Questions**

- What is the role of clean, zero, and low emission energy sources in public transport?
- What are the financing models available for clean technology projects?
- How to plan and manage the transition process to a fleet of low or zero emission vehicles?
- What are the requirements and challenges associated with the deployment of hydrogen infrastructure compared to other technologies?
Target Participants: Mobility Experts.

Activities: Three online discussions between cities; one onsite workshop in Bogotá, Colombia in Quarter Four 2024.

Commitment: Participants should commit to participating and contributing, including presenting their own experience, in the three online sessions, and to attend the onsite meeting in Bogotá (three days).

What is included? For one representative per city of up to eight cities (who have been participating in the online sessions): airfare to Bogotá, accommodation for three nights, local transportation and meals during the onsite meetings in Bogotá.

Estimated Timeline: Three online meetings and one onsite meeting in Bogotá, Quarter Four 2024.
An increasing number of citizen-led energy initiatives in Europe and beyond play a pivotal role in global energy transition. This form of citizen action is reshaping the way of thinking about the generation, use and management of clean energy in large urban areas for a positive environmental impact. Energy communities organise collective, citizen-driven energy initiatives for a clean energy transition. Nevertheless, these energy communities face governance and management barriers, and suffer from a lack of enabling political and social ecosystems to develop them.

Based on a multidisciplinary governance framework and toolkit developed by the EU-sponsored COMANAGE project, this exchange will provide specific guidance to foster public services and policies to create and promote citizen-led and public-participated energy communities projects in metropolitan territories. Peer-to-peer mutual learning activities will be complemented by tailored technical advice from COMANAGE project experts with a view of replication and up-scaling of the energy communities in diverse political and social ecosystems.

Key Questions

- What are the existing and successful models for energy communities?
- How to foster them in a specific territory?
- How to increase civic participation in energy production and distribution?
SL4: Energy Communities

**Target participants:** Energy Experts.

**Activities:** Four to five online peer-to-peer exchanges between cities; onsite workshop in a European city in the First Quarter of 2025.

**Commitment:** Participants should commit to participating in the four to five online sessions and attend the onsite three-day meeting (in a European City to be determined) during the First Quarter of 2025.

**What is included?** Tailor-made technical support and expert advice to foster energy communities in your territory. For one representative of up to five cities (who also participate in the online sessions): airfare and accommodation to the onsite meeting for three nights, local transportation and meals during the onsite meetings.

**Estimated Timeline:** Four to five online meetings starting in the First Quarter of 2024, one onsite meeting in a European city (to be determined) in the First Quarter of 2025.
The number of people lacking access to safe drinking water in cities around the world will double by 2050. The climate crisis and its effects are not only a future threat, but already hitting large metropolises the world over. About 2 billion people globally do not have safe drinking water, while 3.6 billion lack access to safely managed sanitation. Unfolding changes in rain patterns and prolonged droughts have stretched the water resilience of some large metropolitan areas to the limit, raising serious concerns about the sustainability of current water use patterns. Indeed, we face a triple crisis because of water misuse, water pollution and the changing global hydrological cycle through climate change. Some large metropolises already face water shortages and hydric stress, and the quality of their metropolitan life is at stake.

This Solutions Lab will examine the metropolitan dimension of the biodiversity and climate crisis that the world is entering; and connect the challenges, solutions and insights of the most affected cities. It will also prepare Metropolis’ contribution to the UN Summit, highlighting the metropolitan angle.

**Key Questions**

- How are metropolitan authorities addressing hydric stress and water supply disruptions in the short term?
- What are the mid- to long-term actions that can avoid new crises?
- How are cities funding adaptation to chronic hydric deficit?
- How are authorities engaging with the citizens around the situation and involving them in the search for solutions?
SL5: Cities Under Water Stress

**Target Participants:** City Managers, Water Supply Experts, City Planners.

**Activities:** Two online discussions between cities; onsite event in Barcelona, Spain, during the UN World Summit Against Drought (September 20 to October 3, 2024).

**Commitment:** Participants should commit to participating and contributing, including presenting their own experience, in the two online sessions. Those who wish to participate in the meeting and public presentation at the High Level Meeting on National Drought Policies (HLM) will need to cover the travel costs of the presence of their representatives at the Summit in Barcelona, Spain. Participation in the onsite event is highly recommended.

**What is included?** Only facilitation of the meetings and the onsite workshop are included; there is no provision for Metropolis to support travel to Barcelona, Spain.

**Estimated Timeline:** Two online meetings in Quarter Two, plus one onsite meeting in presentation in Barcelona.
The growth of cities—and the intensification of human mobility across the globe—mean that cities need to actively foster social cohesion and promote harmonious cohabitation in urban environments. This implies the coexistence of different value systems and practices within cities to ensure that all metropolitan inhabitants live with dignity, share in prosperity, and have equitable access to the benefits and opportunities provided by metropolitan life.

Recent crises in various territories worldwide highlighted and accentuated a series of issues around the theme of social ties, where cities are on the front line, such as inequalities and precarization of vulnerable populations, various forms of discrimination and racism, social tensions and intolerance. This exchange will approach specific programs and policies of living together, a dynamic process that different players implement to foster inclusion and a sense of belonging at different scales.

Key Questions

- How to foster diversity, equity and inclusion in urban planning and management?
- How to govern migration on a city scale?
- What are the most recent tools and trends to foster inclusive participatory processes?
Target Participants: Local Development Experts, Social Policy Directors, Immigration Policy Directors, and similar.

Activities: Three online discussions between cities, onsite workshop in an African city (to be determined), September 2024.

Commitment: Participants should commit to participating and contributing, including presenting their own experience, in the online sessions, and to send at least one representative to the onsite workshop.

What is included? For one representative per city for up to six cities from Low, Lower Middle or Upper Middle countries: airfare and accommodation to the onsite meeting for three nights, local transportation and meals during the onsite meetings.

Estimated Timeline: Three online meetings starting during the Second Quarter of 2024, one onsite meeting in September 2024.
Cities are growing at an unprecedented rate, and the interconnectedness between cities and their surrounding environments is increasing. This growth is straining traditional governance models, which are often based on rigid horizontal (between municipalities) and vertical (between levels of governance) divisions of power. These outdated frameworks are failing to address the complex challenges faced by metropolitan regions, leaving local communities to bear the brunt of inefficiencies and disparities.

To address these issues, countries and cities worldwide are exploring new governance models with Metropolitan institutions at the centre. These new models are being designed to better manage the interconnected challenges of urban life, such as climate change. The development of new metropolitan governance models is a complex and evolving process. However, it is an opportunity for cities to transition from outdated frameworks to innovative institutions that effectively address the challenges and opportunities of the 21st-century urban landscape.

Key Questions

- What are the forms of accountability and political representation that work best at the metropolitan level?

- What institutional arrangements can facilitate operating at the metropolitan scale while preserving the best elements of the existing arrangements?

- What models work best for each particular environment?
Target Participants: Municipal and provincial decision-makers and civil servants involved in metropolitan governance across municipal boundaries. Metropolitan areas and cities that are discussing the possibility of creating one are particularly encouraged to participate.

Activities: Three online discussions between cities and an onsite workshop and presentation.

Commitment: Participants should commit to participating in the online and onsite sessions (dates and city to be determined).

What is included? Only facilitation of the meetings and of the onsite workshop are included; there is no provision for Metropolis to support travel to the onsite event.

Estimated Timeline: At least three online meetings starting during the Second Quarter of 2024, one onsite meeting later in the year.
Metropolitan areas account for 70% of the world’s climate-changing emissions. The need for a quick and deep transformation of urban economic models is generally accepted by city leaders, but the changes that are needed will not impact everyone equally. The new opportunities for employment, prosperity, and quality of life will not be the same for everyone in metropolitan spaces either. In order to succeed at the speed and scope that is needed, the climate transition needs to be fair, and to distribute opportunities and costs in an equitable manner.

The transformation will not just affect economic sectors most closely associated with the climate transition in metropolitan spaces, such as transportation, construction or energy, but also every other aspect of metropolitan life. From city planning to community engagement, the fairness lens must be applied to every aspect of the climate transition. The results of this Solutions Lab could be presented at the COP-29 Climate Conference in Baku, Azerbaijan.

**Key Questions**

- Where are the new economic and job opportunities, and how can they be more fairly distributed within cities?

- What measures are already in place or under consideration to redistribute opportunities and benefits of the climate transition?

- How are women and girls faring in the climate transition and how can this process reduce gender disparities?

- What policies can ensure that the climate transition becomes a tool for further social cohesion and inclusion?
SL8: Fair Climate Transition

**Target Participants**: City Managers, Economic Development Specialists, Climate Change experts.

**Activities**: Three online discussions between cities and one onsite public event at COP-29 in Baku, Azerbaijan between 11 and 24 November, 2024.

**Commitment**: Participants should commit to participating in three online sessions. If the leadership of a participant city is present in Baku, they would participate in the Metropolis public event there.

**What is included?** Only facilitation of the meetings and of the onsite workshop are included; there is no provision for Metropolis to support travel to the onsite event.

**Estimated Timeline**: Online meetings in Quarters 3 and 4, onsite event in Baku in November 2024 (to be confirmed).
SL9: Supporting Caregivers

Care is worth a staggering $11 trillion annually—twice the size of the global tech sector. Yet, this essential work remains unrecognised, undervalued and unaccounted for in national economies. Caregivers, both professionals and those doing it without remuneration, are overwhelmingly women and girls, and the workload of caregiving often locks them in cycles of poverty, exhaustion and isolation.

As care needs soar amidst an ageing population in some parts of the world and in a booming demography in others—shifting family dynamics and global crises—women and girls bear the brunt of this unpaid labour, dedicating three times more time to caregiving than men. This invisible workload limits women’s opportunities for education, economic independence and empowerment, perpetuating gender inequality and poverty. City governments can make a real difference by placing care at the centre of urban planning, economic development, community engagement and service delivery. This exchange is about solutions that transform care from an invisible burden into a pillar of sustainable development and shared quality of life.

At least one pilot project in Africa and one pilot project in Asia or the Middle East presented by members participating in this Solutions Lab will receive Metropolis’ funding, and there will be further opportunities to apply with projects to support caregivers for participants in the group.

Key Questions

- What does it mean to place care at the centre of urban planning?
- Which mechanisms have city governments used to remove barriers for caregivers to accessing education and achieving economic independence?
- How can cities use care-based initiatives to address gender inequalities?
SL9: Supporting Caregivers

**Target Participants:** Gender, Social Policies, and Employment Experts

**Activities:** Online discussions between cities; two onsite events (members participate in one or the other, not in both): one in French in an African city at the end of November (city to be determined) and one in English in Istanbul at the end of May.

**Commitment:** Participants should commit to participating and contributing, including presenting their own experience, in three online sessions and to travel to one of the onsite meetings.

**What is included?** For one representative per city: accommodation at the onsite meeting for three nights, local transportation and meals during the onsite meetings. For up to eight members from Low, Lower Middle or Upper Middle countries airfare will also be covered.

**Estimated Timeline:** Online sessions will start in Quarter 1 of 2024. Onsite meetings will take place in May 2024 (in English, in an Asian or Middle Eastern city to be determined) and in September 2024 (in French, in an African city to be determined).
SL10: Empowering Women Leaders in City Governance

Metropolis works to break down barriers for women in city leadership, fostering a supportive environment with peers and mentors. This Solutions Lab will aim to shatter glass ceilings in traditionally male-dominated sectors like transport, innovation, economic development and urban planning, paving the way for a more equitable and progressive urban future.

Designed with a commitment to empower and elevate women in leadership across diverse sectors, this Solutions Lab is tailored to emerging and seasoned city officials who are eager to refine their leadership skills, be part of a supportive community and gain invaluable insights from accomplished mentors in their fields. Through a combination of interactive workshops and peer-to-peer learning opportunities, this Solutions Lab will provide women with the tools, resources and support they need to succeed in their leadership roles and make a positive impact on their communities.

Key Questions

- What are the barriers that women face in their path to leadership roles? How can we address these barriers?

- How are women leaders perceived in city governments? What individual and structural changes can we make to improve this?

- How can peer-to-peer mentorship between women leaders support them to find success in their roles?
Target participants: Women in managerial positions in city departments related to transport, data, urban planning and others.

Activities: Online discussions between cities; mentoring; onsite workshop in an African city in Spring 2024.

Commitment: Participants should commit to participating and contributing, including presenting their own experience, in two online sessions, in other mentoring and peer-to-peer sessions, and to send one representative to the onsite events.

What is included? For one representative per city: accommodation to the onsite meeting for three nights, local transportation and meals during the onsite meetings. For up to eight members from Low, Lower Middle or Upper Middle countries airfare will also be covered.

Estimated Timeline: Online sessions will start in Quarter 1 of 2024. Onsite meetings will take place in English (in Istanbul at the end of May 2024) and in French (in an African city to be determined at the end of November 2024).
Female users and employees often face barriers to accessing public transport systems in big cities, which in turn constrains essential rights and socio-economic development of this population. There is a clear need to reduce the main barriers and disparities faced by women and girls, through transformative action inside public transport systems. This Solutions Lab will link up cities that work to remove obstacles and deconstruct stereotypes for women in public transport systems, and propose routes towards improved gender equality.

**Key Questions**

- How can public transport operators and regulators remove obstacles, including those related to culture and communications, for the full participation of women in public transport systems?

- How can local governments push public transportation operating companies to develop infrastructure adaptations that improve working conditions for women?

- What type of programs successfully reduce women's perception of insecurity in public transportation?
**SL11: Gender Perspectives on Transportation**

**Target Participants**: Mobility experts and planners.

**Activities**: Three online discussions between cities; one onsite workshop in Bogotá, Colombia in Quarter Two 2024.

**Commitment**: Participants should commit to participating and contributing—including presenting their own experience—in the three online sessions, and to attend the onsite meeting in Bogotá (three days).

**What is included?** For one representative per city of up to eight cities (who have been participating in the online sessions): airfare to Bogotá, accommodation for three nights, local transportation and meals during the onsite meetings in Bogotá.

**Estimated Timeline**: Three online meetings and one onsite meeting in Bogotá, Quarter Two 2024.