UN-HABITAT

THE URBAN OBSERVATORY

Newsletter

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Introduction

Dr. Carla-Leanne Washbourne, Chairperson, UN-Habitat Global Urban Observatory Network (GUO-Net)

Welcome to this installment of the Urban Observatory Newsletter, an initiative of the UN-Habitat Global Urban Observatory Network (GUO-Net). The newsletter is produced in collaboration with observatories all around the world, making it a key place to find out about events, activities and opportunities to get involved.

Since our last news update we held in-person meetings of GUO-Net, and our wider stakeholder group, at the 12th World Urban Forum (WUF 12). GUO-Net hosted two well-attended and dynamic events within the formal WUF12 programme. During these events we enjoyed a welcome from the Egyptian Urban Observatory, explored current challenges for observatories and learnt from the experience of members across the network. We also enjoyed informal meetings and exchanges, with thanks to the forum hosts, Mr. Aref Alshamandy (Qassim Urban Observatory), Ms. Eng Passant Hamza (Egyptian Urban Observatory) and Mr. Khaled Alhomodi (Al Baha Urban Observatory). You can read more about our activities at WUF 12 in the summary by Shannon Arnold, (Gauteng City-Region Observatory) on Page 2.

In this issue you can also find some regular features including an observatory profile on Observatorio Urbano Local Buenos Aires Metropolitana (The Local Urban Observatory – Buenos Aires Metropolitan Area OUL-BAM) (Page 4-6) and an opinion piece on sustainable urban economics (Page 7-11), by Dr. Abdel-Hameed Nawar (Cairo University).

Photo of panelists during the WUF 12 GUO-Net Session © UN-Habitat

Upcoming events

- GUO- Net Bi-Annual Webinars

GUO- Net Bi-Annual Webinars (Mid-Year and Last Quarter of the Year- Dates to be confirmed)

I am excited about the many upcoming activities for GUO-Net this year. We are in the planning phase for our annual webinars, with details of how to get involved following soon. We are also working towards a proposal for a standard set of baseline indicators, to be embedded into the monitoring framework for all observatories within GUO-Net as part of efforts to enhance urban data availability, a key component to the origins of the urban observatory model. While there are existing frameworks and harmonized tools for tracking global urban progress with a broad and universal scope, they may not fully address unique challenges, priorities and contexts across cities and urban areas across different regions. This will be brought to a wider audience later in the year.

I would like to take this opportunity to welcome new members to the network, including: Observatorio de Dinámicas Metropolitanas y Regionales (Observatory of Metropolitan and Regional Dynamics) [Metropolitan region of Bogotá – Cundinamarca, Colombia], Data and Technology Center - Marmara Municipalities Union (MMU) [Marmara Region, Türkiye] and Amman Urban Observatory [Greater Amman Municipality, Jordan]. We encourage more observatories to become members of network, and benefit from experiences sharing activities, updates on emerging trends in urban observatories and key learning opportunities, as well as to receive support from the network as may be needed. Please get in touch via unhabitat-statistics@un.org.

Happy reading!

World Urban Forum Highlights Local Action and Urban Observatories at Twelfth Session in Cairo

Shannon Arnold, Junior Researcher, Gauteng City-Region Observatory

Cairo, March 09, 2025 – The Twelfth Session of the World Urban Forum (WUF12), convened by UN-Habitat, concluded with a resounding call for localized solutions to global urban challenges. Established in 2001 by the United Nations, the biennial high-level forum gathered more than 25,000 representatives from 182 countries from national and local governments, academics, business leaders, civil society, urban planners, and NGOs to address rapid urbanization and its multifaceted impacts on communities, cities, and economies. Held under the theme *"It All Starts at Home: Local Actions for Sustainable Cities and Communities"*[1], WUF12 emphasized the pivotal role of grassroots efforts in fostering inclusive, safe, and resilient urban environments.

The forum, hosted in Cairo, spotlighted pressing issues such as housing affordability, commuting accessibility, water security, extreme inequality, climate change, and urban conflicts. A key focus was localizing the Sustainable Development Goals (SDGs) and the New Urban Agenda, redefining "home" as more than just shelter—encompassing cultural, social, economic, and environmental dimensions of urban life.

WUF 12 GUO-Net Session © UN-Habitat

The Opening Ceremony featured prominent voices, including the President of United Cities and Local Governments and Mayor of The Hague, Jan Van Zanen[2]; UN-Habitat Executive Director Anacláudia Rossbach of Brazil[3]; Yemen's President Rashad Mohammed Al-Alimi[4]; Palestinian leader Mahmoud Abbas[5]; and Egypt's President Abdel Fattah el-Sisi[6]. Their keynote addresses underscored the urgency of collective action for sustainable urbanization.

WUF12's objectives included raising awareness of sustainable urbanization, enhancing collective knowledge through open debates and best-practice sharing, and fostering collaboration among stakeholders. The event culminated in the Cairo Call to Action,[7] a document which underscores the global prioritization of adequate housing as a social protection cornerstone, particularly for slum dwellers and informal settlers. It also emphasized urban climate action and resilient systems to support all residents, including displaced populations, while advocating for multilevel governance.

Global Urban Observatory Network Takes Center Stage

A highlight of WUF12 was the networking session of the Global Urban Observatory Network (GUO-Net), coordinated by UN-Habitat. Titled *"Network Building to Address Future Challenges for Urban Observatories,"* the session showcased the growing role of urban observatories in tackling social and environmental challenges. Representatives from GUO-Net observatories worldwide shared insights on capacity building, urban policy development, and innovative tools to address local urbanization trends.

Moderated by Gauteng City-Region Observatory (GCRO) Executive Director Rashid Seedat[8], a panel discussion featured experts including Aref Alshamandy (Saudi Arabia), Karol Janas[9] (Poland), Nausheen Anwar[10] (Pakistan), and Khaled Alhomodi (Saudi Arabia). They highlighted challenges such as accessing reliable data, standardizing indicators across cities, and ensuring data ownership transparency - key hurdles to effective urban governance. The session stressed integrating observatories into governance frameworks to amplify their impact on planning and policymaking.

Audience during WUF 12 GUO-Net Session © UN-Habitat

GUO-Net Training Session Bolsters Urban Governance

In a parallel training session, GUO-Net partnered with South Africa's Gauteng Department of Cooperative Governance and Traditional Affairs (COGTA)[11] to explore *"Urban Observatory and Multi-Level Governance Techniques for Building Well-Governed and Sustainable Towns and Cities."* Dennis Mwaniki[12], a UN-Habitat Spatial Data Expert, presented best practices and challenges in establishing sustainable observatories, followed by a panel discussion with representatives from Saudi Arabia's Qassim Urban Observatory and Egypt's National Urban Observatory. They discussed data accessibility, governance integration, and financial sustainability— noting the GCRO's unique funding model as an exception.

Gauteng COGTA's presentation on South Africa's Sedibeng District Hub illustrated multi-level governance in action, with a subsequent panel moderated by GCRO's Lebogang Lechuba[13] reflecting on the country's District Development Model. Key takeaways included:

- Setting up urban observatories for reliable data collection and adapting operations to local or national governments
- Robust stakeholder collaboration
- Capacity building of urban observatories to strengthen urban management.

A Path Forward

The GUO-Net sessions at WUF12 marked a historic milestone: meeting in person for the first time since the inception of its steering committee, energizing the network and amplifying its role in global urban sustainability. With cities grappling with intensifying climate change, inequality, and population pressures, the forum spotlighted the urban observatory model—emphasizing data-driven solutions and collaborative governance—as a blueprint for resilient urban futures. This underscored GUO-Net's critical mission moving forward. Capping it off, the Cairo Call to Action emerged as a global rallying cry, urging stakeholders to prioritize housing, climate resilience, and inclusive urban development, beginning at the local level.

URBAN OBSERVATORY

Observatorio Urbano Local

Buenos Aires Metropolitana, Argentina

Dr. María Eugenia Goicoechea

Buenos Aires is the capital city of Argentina. Covering an area of 11,500 km² and with a population exceeding 16 million, it forms a metropolitan area that is home to 36% of the Argentine population in just 0.4% of the national territory. It comprises the Autonomous City of Buenos Aires and 40 municipalities connected by physical continuity, with shared mobility flows and dynamics of production and consumption. However, despite its functional unity, Buenos Aires lacks a central metropolitan urban institution. This absence poses constant challenges in the management of shared problems, such as solid waste management, the coordination of security forces, and the preservation of water basins, which transcend individual jurisdictions.

In response to these urban policy challenges, the Local Urban Observatory - Buenos Aires Metropolitan Area (OUL-BAM) was established with the aim of fostering dialogue among governmental and non-governmental stakeholders, and to aid in the development of solutions for the most critical issues faced by the authorities at different levels of governance within the Metropolitan Region of Buenos Aires. The observatory is a program of the College of Architecture, Design and Urbanism at the University of Buenos Aires (FADU – UBA). It was created in 2009 (Res. 584/10 – CD FADU-UBA) at the initiative of its General Coordinator, Professor Artemio Abba, and operates within the Habitat and Municipality Research Center at that university.

The OUL-BAM brings together university professors, local researchers, and student interns. As an academic institution, it communicates the results of its research at congresses and scientific events, and publishes articles in high-impact specialized journals. In addition, it has established itself as a reference and consultation space in the professional field of the local urban planning, providing consulting services and preparing reports for government agencies. Its members are frequently invited as experts to various working meetings promoted by the public sector.

The OUL-BAM develops four main lines of research, each focused on different aspects of the urban problem, but sharing a systemic vision of the city on a metropolitan scale. These lines are characterized by the application of methodologies based on the recognition of the urban structure and the reciprocal influence between the physical form of the territory and historical processes, as well as by a vocation for management and knowledge transfer. Each of them is described below.

Social Maps

Social Maps allow the characterization of the socio-territorial structure of the Autonomous City of Buenos Aires and its metropolitan environment, based on the georeferenced analysis of census-type socio-housing variables, the study of their interrelations, and the identification of the underlying socio-territorial processes. This tool facilitates the analysis of the distribution of social groups in the territory and the most relevant social processes that have influenced this configuration, such as the development of transport, urban sprawl trends, and changes in the urban land value.

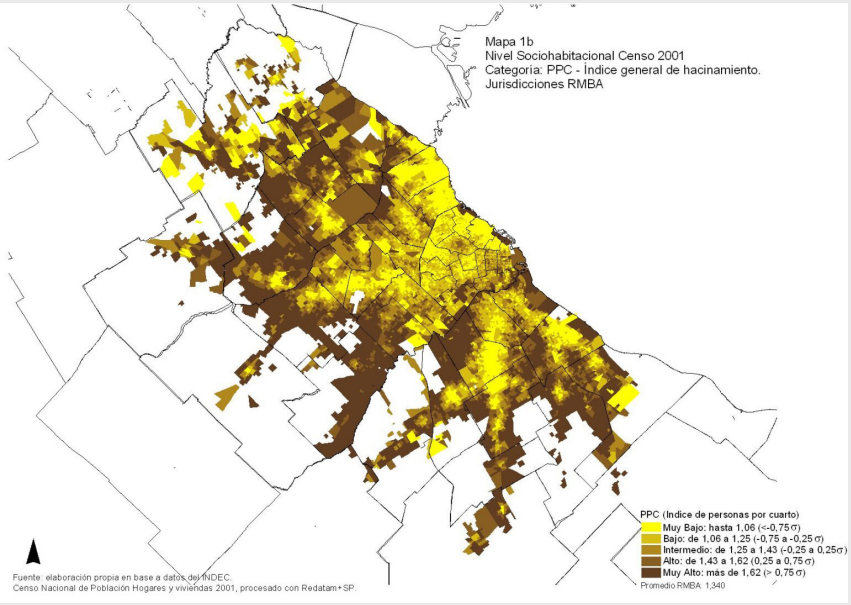

Figure 1 : Image showing population density and connectivity in the metropolitan region of Buenos Aires (2001)

Metropolitan Institutionality

This line of research monitors the decisions and actions of governmental and non-governmental actors with the aim of evaluating interjurisdictional coordination, promoting a space for citizen participation that legitimizes the metropolitan scale. Under this project, activities are carried out to collect, process, and evaluate the information available on the agenda of problems in the city.

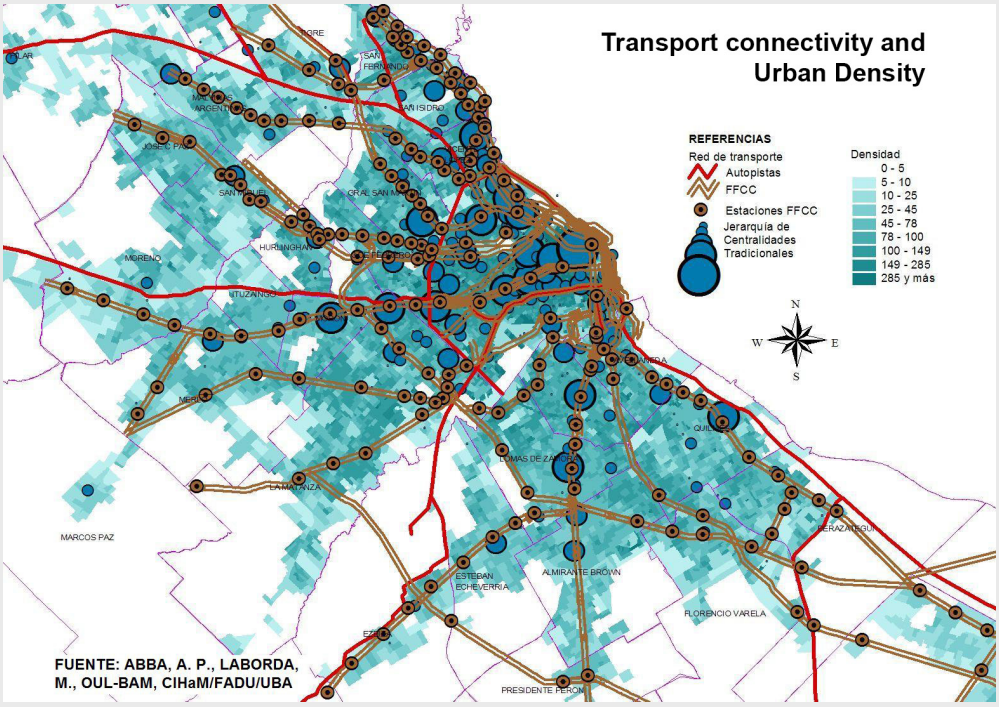

Figure 2 : Transport connectivity and Urban Density

SDGs in a Metropolitan Perspective

The objective of this project is to explore the scope of generating statistical information linked to the Sustainable Development Goals (SDGs) to address and guide metropolitan management. This implies recognizing, based on the case of the Metropolitan Region of Buenos Aires, the particularities of Latin American urbanization and its dialogue with global standards and goals.

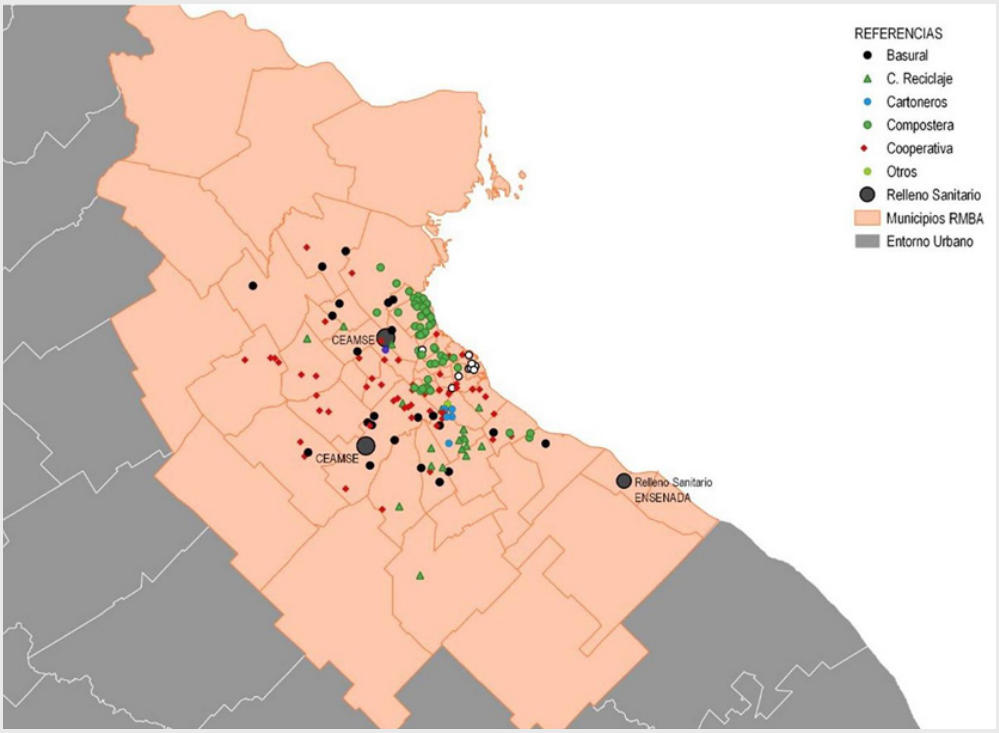

Figure 3 : Distribution of relevant elements in the management of Urban Solid Waste. RMBA, 2022 © Illustration based on data from Mapatrash and Trash Atlas

Socio-Territorial Transformations in Central Areas of the Metropolitan Region of Buenos Aires

This research theme studies the processes of urban renewal in seven areas that played a central role in the expanded reproduction of the city during the industrializing period and that currently observe the growth of economic activities in the tertiary sector. The project contemplates a physical dimension, linked to changes in the built environment; an economic dimension, associated with the actors and sectors that participate in the renewal processes; and a social dimension, which analyzes the effects on the dynamics of production and reproduction of inequality.

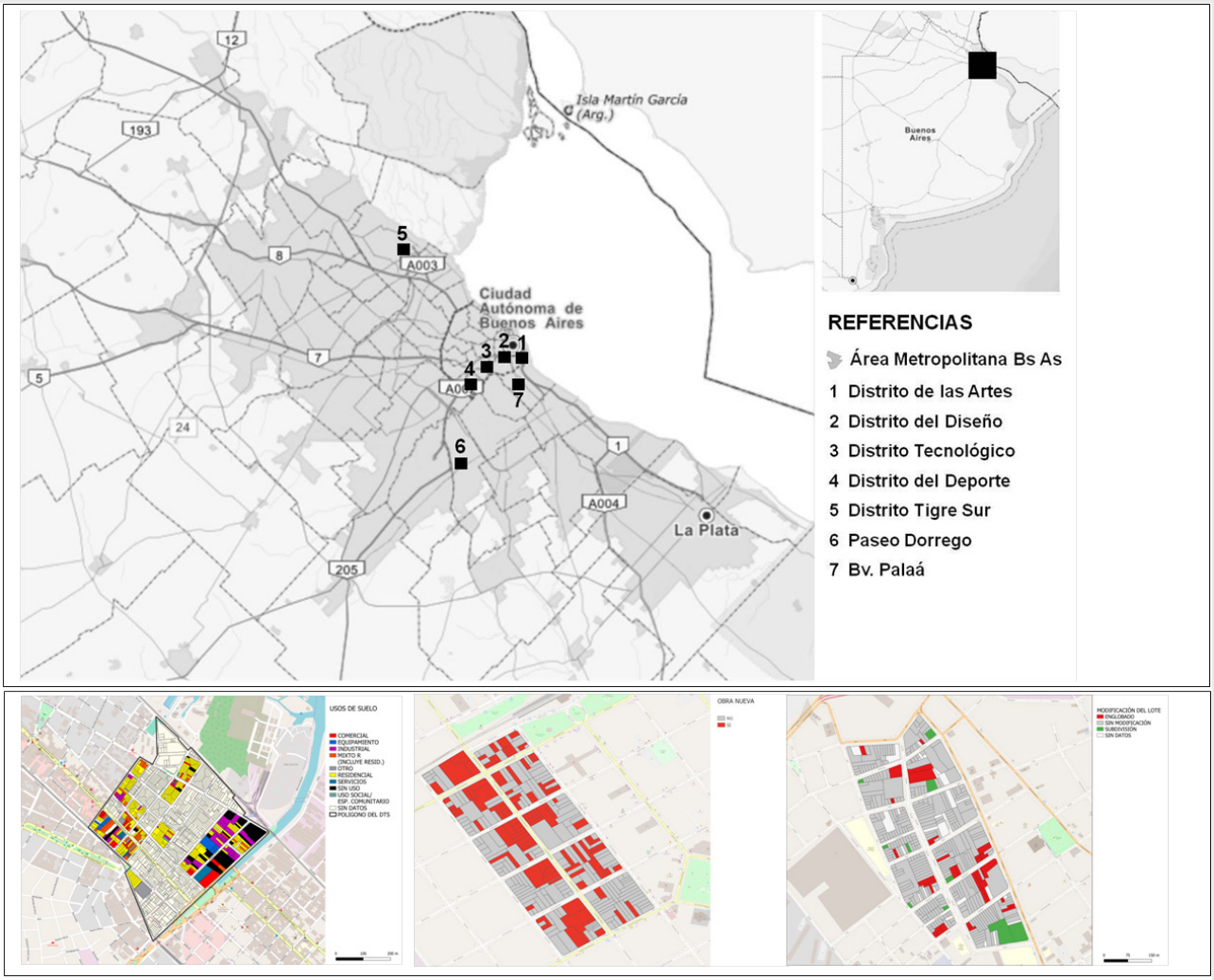

Figure 4 : © Goicoechea and Arqueros, 2024.

OULBAM has marked significant achievements in urban research and policy influence:

2010

- OULBAM debuted at UN-Habitat's World Urban Forum in Rio de Janeiro[14], Brazil, showcasing its research on urban landscapes.

2015

- The organization secured second place in the Eleventh Scientific Articles Competition, hosted by Buenos Aires' General Directorate of Statistics and Censuses, for its study on demographic shifts in the city.[15]

2017

- An OULBAM representative joined the Advisory Commission of the Metropolitan Area of Buenos Aires (COCAMBA)[16] under the National Ministry of the Interior, strengthening its policy influence.
- OULBAM earned the XVII Prize from the Central Society of Architects (SCA) and the Professional Council of Architecture and Urbanism (CPAU) for unpublished research. The winning study, "Identification of the Socio-Territorial Structure of the City of Buenos Aires Considering Its Metropolitan Context," [17] was a collaborative effort with the University of Buenos Aires' Faculty of Architecture, Design, and Urbanism and the Buenos Aires city government.

URBAN INSIGHTS

Sustainable Urban Economics

How Circular Economy Principles Can Reshape Urban Development

Dr. Abdel-Hameed Nawar, Faculty of Economics and Political Science, Cairo University

Global urbanization is on the rise, with more than half of the world's population living in cities and urban areas today, a number that is projected to reach 68% by 2050 (United Nations, 2018). The increasing urbanization brings challenges such as escalating demand for resources, growing waste generation, and increased greenhouse gas emissions. The conventional linear economic model, based on ***"take, make, dispose,"*** characterised by the assumption of infinite resource availability remains a major challenge for the attainment of sustainable development where no one and no place is left behind.

To attain the shared vision of achieving sustainability by 2030 and beyond, sustainable urban economics – which integrates environmental stewardship with economic growth in urban settings, balancing the efficient use of resources while promoting social well-being - can offer a key building block to achieving the future we want. By adopting the reduce-reuse-recycle and regenerate principles of the Circular Economy (CE), enabled through high resolution data produced by urban observatories and its use for decision making and action, cities, regions and countries can grow in a more sustainable, inclusive and prosperous manner.

The Circular Economy as an economic system emphasizes the aspects of **r**educing waste, **r**eusing materials, **r**ecycling products, and **r**egenerating natural systems (often referred to as the **4Rs**; see figure 5), in a bid to ensure the world makes the most use of resources. Integrating circular economy practices in urban development reduces costs in raw materials, energy, and waste management. It also creates jobs in sectors like renewable energy and recycling, while fostering long-term economic sustainability and resilience to climate change. Additionally, reducing pollution improves public health, quality of life, and economic productivity.

As cities are the focal points of resource consumption, waste generation, and energy use, implementing CE in urban planning can help cities manage these challenges effectively by promoting the efficient use of resources and waste reduction through innovative designs and systems. This can lead to a decrease in carbon emissions, supporting cities' commitments to combat climate change.

Figure 5 : Illustration of circular economy

Amsterdam is a leading example of a city implementing circular economy principles, particularly in its construction sector (See Figure 6). The city aims to maximize material lifespan through reuse and repurposing. Key initiatives include: the development of material passports to increase transparency and facilitate material reallocation; an emphasis on chain cooperation and supply chain financing for long-term building maintenance; integrated planning to coordinate demolition and the reuse of materials in new projects; the promotion of bio-based materials; and the design of modular, multifunctional buildings for increased adaptability. Amsterdam also focuses on "smart demolition," which involves carefully separating reusable products and materials, storing them for future use, and utilizing a materials database and online marketplace to connect buyers and sellers. These strategies are integral to Amsterdam's broader goal of halving its use of new raw materials by 2030 and achieving full circularity by 2050.

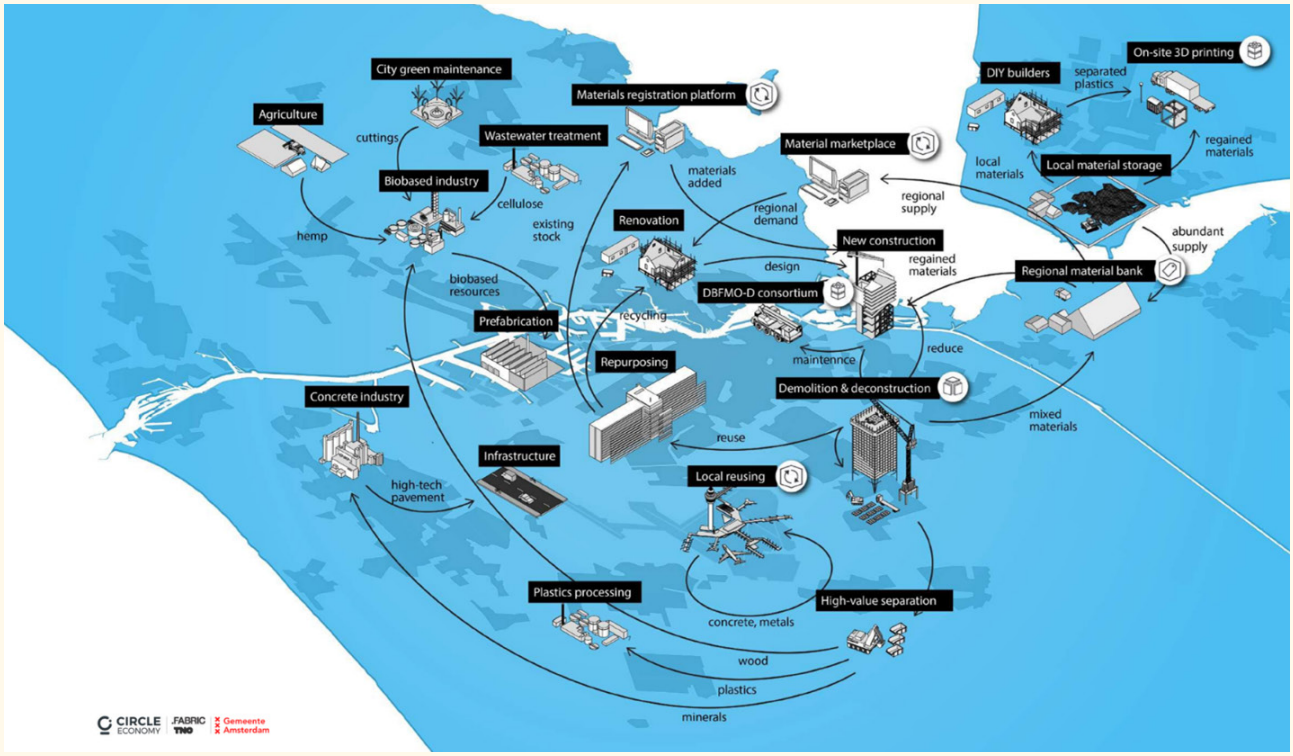

Figure 6 : Circular Amsterdam in the Construction Chain © Circle Economy, TNO and FABRIC. (2016), pp 18-19.

*The circular economy isn't just an evolution - **it's a revolution.** In a world where resources are squandered and waste piles up, we say: enough. We reuse everything - materials, energy, even trash - and turn it into economic strength.*

- Dr. Abdel-Hameed Nawar

Growing investments in circular economy projects are driving global growth, and point to a promising future

Despite the setback caused by the COVID-19 pandemic, there is a growing interest in the transition to a Circular Economy (CE) as countries and industries work to recover and build more sustainable systems. The 2022 Environmental Performance Index (EPI) highlights the global push toward sustainability, (Yale University, 2022). Organizations like MSCI have developed Circular Economy Indexes, designed to identify companies that generate revenue from the transition to a CE, promoting waste reduction, resource circulation, and regeneration of nature (MSCI, 2025).

The investment figures derived from industry reports, projections, and market analyses conducted between 2023 and 2025 indicate that strong momentum is returning toward sustainability efforts. These estimates reflect global markets, with higher concentrations of investment observed in urban areas, particularly in advanced economies and GCC countries.

#	Circular Economy Project	Description	Circular Economy Principles	Global Investment Estimate
1	**Recycling Systems (Municipal Recycling & E-Waste Recycling)**[18]	Projects focused on collecting, sorting, and processing recyclable materials like paper, plastic, glass, and metals. E-Waste recycling extracts valuable materials from electronic waste for reuse.		**H**
2	**Upcycling and Repurposing (Upcycling & Fashion/ Textiles Recycling)**[18]	Projects that repurpose waste materials into high-value products. Fashion companies recycle textiles and clothes into new items, reducing the need for raw materials.		**M**
3	**Product Life Extension Projects (Repair, Refurbishment, & Remanufacturing)**	Businesses that repair, refurbish, or remanufacture products to extend their life cycle, including electronics, furniture, appliances, and vehicles.		**M**
4	**Closed-Loop Supply Chains**	Companies design products with materials that can be returned to the system for reuse. Circular supply chains use recycled materials to make new products, ensuring resource sustainability.		**H**
5	**Circular Construction and Building Projects (Deconstruction & Modular Construction)**	Projects focused on deconstructing old buildings to recover valuable materials, or using modular construction that can be disassembled, reused, or recycled at the end of a building's life.		**H**
6	**Food Waste Reduction Projects (Composting & Waste-to-Energy)**	Projects that turn food waste into compost for soil regeneration, or convert organic waste into biogas or energy, reducing landfill use and providing renewable energy.		**L**
7	**Circular Agriculture (Urban Farming & Aquaponics/ Hydroponics)**	Urban farming uses waste products as fertilizers for sustainable food production. Aquaponics and hydroponics are closed-loop systems that integrate plant and fish cultivation.		**M**
8	**Waste-to-Resource Systems (Plastic Waste-to-Fuel & Biomass Energy)**[18]	Plastic waste is converted into fuel or raw materials, while biomass energy projects turn organic waste into renewable energy or biogas.		**M**
9	**Sustainable Packaging and Circular Product Design**[18]	Eco-friendly packaging uses recycled or biodegradable materials, and circular product design ensures products can be easily repaired, disassembled, or recycled.		**VH**
10	**Water Management Projects (Water Recycling & Rainwater Harvesting)**[18]	Water recycling captures and treats wastewater for non-potable use, while rainwater harvesting stores rainwater for irrigation and non-drinking purposes.		**M**

Reduce **Reuse** **Recycle** **Regenerate**

Table 1 : Author estimates based on multiple industry-wide reports, projections, and market analyses conducted between 2023 and 2025. **VH** (Very High): > $200 billion annual global investment- **H** (High): $50–200 billion - **M** (Medium): $15–50 billion - **L** (Low): < $15 billion. Classification refers to investment potential, not current capital deployment. Aggregating across the ten niche areas, the total exceeds $500 billion annually (the full range is $430–720 billion, with a mid range around $580 billion).

Despite the growing investments, and the evident value of CE for a more sustainable future, its implementation still faces significant challenges, the key ones being:

- **Policy and Regulatory Challenges** – which requires policymakers to adapt existing regulations to support circular economy models, and implement a shift in thinking towards long-term sustainability rather than short-term economic growth.
- **Economic and Financial Barriers** – stemming from high initial investment costs for circular economy projects. Overcoming this barrier requires innovative financing models and public-private partnerships.
- **Social Acceptance and Cultural Barriers** – characterised by relatively lower public awareness and acceptance of circular economy practices compared to the linear economy approaches. Education campaigns and incentives are crucial to encourage behaviour change.
- **Technological and Infrastructure Limitations** – which hinder the uptake and implementation of CE projects in cities.

Urban observatories are centrally placed to adopt and promote the principles of the circular economy

As urban populations grow, the need for sustainable, resource-efficient development becomes more critical. Circular Economy principles offer a transformative model that can reshape cities into resilient, self-sustaining hubs. However, to achieve this transformation, stakeholders must act now, aligning their efforts with policies, investments, and technologies that promote sustainability.

Action on the 4Rs requires on the one hand high resolution data and information at the lowest possible units of cities, regions and countries; and on the other advancing the use of such data for interventions at all levels. These two components form the inherent architecture of the urban observatories, making them central to advancing local adoption and implementation of the principles of the circular economy. From supporting collaboration among governments, businesses, and urban planners to creating a platform for local communities to shape the future of their cities through transparent engagement and providing real-time analytics to policy and decision makers - urban observatories can play a critical role in helping cities to develop relevant regulatory frameworks, invest in the required innovation and technologies, and encourage responsible citizenship; all of which would contribute to the creation of urban environments that thrive within the bounds of nature's limits - economically, environmentally, and socially.

Through the interventions of urban observatories from across the world in promoting the circular economy, cities and regions can stop being wasteful, extractive, or vulnerable to resource scarcity, and instead become more resilient, self-sustaining hubs where waste is virtually eliminated, resources are perpetually reused, and urban prosperity thrives.

The time for circular cities is now. Let's work together to build the cities of tomorrow—where waste is minimized, resources are maximized, and economic growth thrives in harmony with the planet.

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Endnotes

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18 The full estimation methodology can be obtained by corresponding with the author

New to the network

GUO-Net is pleased to welcome recent joiners of the network:

- Observatorio de Dinámicas Metropolitanas y Regionales (Observatory of Metropolitan and Regional Dynamics) [Metropolitan region of Bogotá – Cundinamarca, Colombia] [website]
- Data and Technology Center - Marmara Municipalities Union (MMU) [Marmara Region, Türkiye] [website].
- Amman Urban Observatory [Greater Amman Municipality, Jordan] [website].

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