

METHODOLOGIES



Metropolitan management and planning



METHODOLOGIES

Metropolitan management
and planning

Metr**o**HUB



METROHUB TOOLS: METHODOLOGIES METROPOLITAN MANAGEMENT AND PLANNING

First published in Nairobi in 2020 by UN-Habitat
Copyright © United Nations Human Settlements Programme, 2020

All rights reserved

United Nations Human Settlements Programme (UN-Habitat)
P.O. Box 30030, 00100 Nairobi GPO KENYA
Tel: 254-020-7623120 (Central Office)
www.unhabitat.org

HS Number: HS/022/20S

With thanks to

Coordinator and editors: María del Pilar Téllez Soler, Remy Sietchiping Contributors: Rafael H. Forero H., Michael Kinyanjui.
Design and layout: Jean Robert Gatsinzi
This document has been developed with the (financial) support of the Government of Sweden.

Special Contribution

"Metropolitan Impact of Territorial Projects" Methodology.
Copyright Interdisciplinary Centre for Development Studies [Centro Interdisciplinario de Estudios sobre Desarrollo (CIDER)] of the University of the Andes, Andrés Hernández, Sergio Montero, Rafael H. Forero H., Jairo Ávila Zabala, Cristhian Molina Calderón

Disclaimer

The terms used and the presentation of the material in this publication are not meant as the expression of any opinion by the United Nations Secretariat regarding the legal status of any country, territory, city, town or area, or their authorities, or regarding the delimitation of their boundary lines.

The views expressed in this publication do not necessarily reflect those of the United Nations Human Settlements Programme, the United Nations or its member States.

Extracts may be reproduced without permission, provided the source is credited.

Table of contents

INTRODUCTION	1
INTRODUCTION	3
UN-HABITAT STRATEGIC PLAN 2020 – 2023 ²	5
RELACIÓN CON LAS AGENDA AND SUSTAINABLE DEVELOPMENT GOALS	5
AGENDA AND SUSTAINABLE DEVELOPMENT GOALS ³	9
GOAL 11 TARGETS ⁴	10
THE MONTREAL DECLARATION ON METROPOLITAN AREAs ⁵	11
NEW URBAN AGENDA ⁶	12
METROPOLITAN PLANNING AND MANAGEMENT METHODOLOGIES	13
METHODOLOGIES	14
INTRA-METROPOLITAN BORDER PLANNING ⁷	17
GOVERNANCE OF METROPOLITAN INTERDEPENDENCIES ¹⁰	30
PARTICIPATORY METROPOLITAN PLANNING ¹¹	40
METROPOLITAN VISION AND MANAGEMENT ¹²	45
METROPOLITAN INNOVATION ¹³	50
DIALOGUE WITH METROPOLITAN PEERS	60
METROPOLITAN INNOVATION PROJECTS	68
METROPOLITAN IMPACT OF TERRITORIAL PROJECTS	78
TRAINING	88
METROHUB WORKSHOPS ¹⁶	90
METROHUB – PEER-TO-PEER METROPOLITAN ALLIANCE ROUND TABLES ¹⁷	91
BIBLIOGRAPHY	94





INTRODUCTION



INTRODUCTION

UN-Habitat, through its MetroHUB initiative, presents this document of Metropolitan Management and Planning Methodologies in order to provide tools, instruments and training to key actors in metropolitan development and city systems.

These methodologies contribute to enhancing capacities and competencies to better plan, govern, finance and manage metropolitan areas. They propose territorial development strategies consistent with the realities of metropolises and regions based on the challenges of unstoppable and irreversible urbanisation worldwide.

Ninety percent of urban growth will occur in less developed regions, at a rapid pace and in situations where capacity and resources are more limited. They pose a challenge to those responsible for territorial management and development to innovate the way cities are managed, prioritising and optimising resources and efforts based on principles of integration, collaboration and territorial equity.

Urbanisation brings with it associated phenomena such as the continued growth of informal settlements or slums and uncontrolled urban expansion. The inequality currently on the increase in cities in developed countries and metropolises, climate change, poverty, as well as gender discrimination, humanitarian crises and conflicts, are increasingly urban phenomena.

Despite the challenges, study and research on the process of urbanisation has shown that urbanisation is an opportunity for development and for providing better living conditions to the groups that are furthest behind. When innovative styles of territorial planning, design and management are implemented in metropolises, it is possible to address issues related to poverty, social exclusion and spatial inequality, shared prosperity, climate and the environment, and various forms of crisis. In other words, the aim is to achieve sustainable urban transformation because it represents an opportunity to work with all kinds of actors and communities for integrated, efficient and sustainable territorial development.

MetroHUB offers these methodologies to facilitate this sustainable transformation process in metropolitan areas and all kinds of agglomerates, with urban challenges to metropolitan territories that drive development and are prosperous and positive catalysts for people's quality of life.

It offers tools and instruments to define the vision and model of metropolitan management, supramunicipal and intra-metropolitan border planning, governance of metropolitan affairs and innovation in territorial management and metropolitan projects.

MetroHUB¹

MetroHUB is a multi-level initiative that aims to strengthen the capacity of key players in metropolitan development to better plan, govern, finance and administrate metropolitan areas. To complement UN-Habitat's three-pronged approach, the initiative combines capacity building, planning, governance and financing with socio-environmental considerations, and promotes the design (and implementation) of strategic "acupuncture" projects to be done in the specific local context of a metropolitan area. Visible and tangible changes for the population.

With the MetroHUB initiative, UN-Habitat supports the leading metropolitan actors in developing strategies for their metropolitan areas (or city systems) based on their specific local contexts, values, assets and priorities. It also promotes partnerships—between cities, between rural and urban areas and between different stakeholders, as well as between different levels of government authorities.

Although it is customised for metropolitan areas, MetroHUB's approach is also applicable to city systems with more than two municipalities facing common challenges that can best be addressed in a concerted (metropolitan) way, in order to provide efficient services and ensure effective management.

The MetroHUB initiative was designed to improve the ability of key actors to address the challenges facing metropolitan areas. It also includes a wide range of services and activities, from technical advisory services to review of policies, plans and strategies, metropolitan profiles, support for communication and branding strategies, as well as capacity assessments, among others.

MetroHUB was conceived to "learn, share, develop, apply and communicate" information, strategies, plans and tools for sustainable metropolitan development.



¹ MetroHUB – Supporting Metropolitan Development:
<http://urbanpolicyplatform.org/metrohub/#>

UN-HABITAT STRATEGIC PLAN 2020 – 2023²

Based on its vision of “a better quality of life for all in an urbanising world”, UN-Habitat focuses all its institutional efforts and those of its partners on improving national and international efforts to address the challenges of urbanisation.

To this end, UN-Habitat sees urbanisation as a process able to transform territories, the connection between human settlements throughout the urban-rural continuum, including small market towns, small- and medium-sized cities and major urban centres, and ensure access for all to adequate, affordable housing, basic services and infrastructure.

UN-Habitat promotes urbanisation as a positive transformative force for individuals and communities, reducing inequality, discrimination and poverty. The overall objective of strategic plan is therefore to advance sustainable urbanisation as an engine of development and peace, to improve the living conditions of all through four domains of change:

- A.** Reduced spatial inequality and poverty in communities across the urban-rural continuum.
- B.** Enhanced shared prosperity for cities and regions.
- C.** Strengthened climate action and improved urban environment.
- D.** Effective urban crises prevention and response

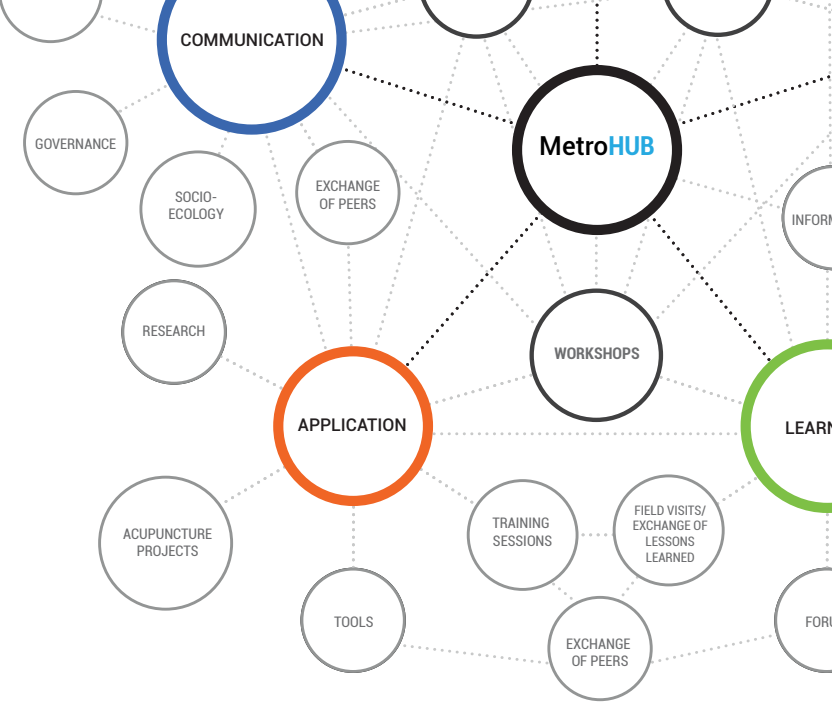
These domains are supported by aspects concerned with social inclusion in terms of human rights; gender; children, young people and the elderly, and disability.

MetroHUB's Metropolitan Management and Planning Methodologies contribute to greater shared prosperity in cities and regions (change

domain 2). They guide decision-makers and key actors in metropolitan areas and city systems with tools and instruments to achieve balanced territorial development and overcome inequalities, with strategies for integrated planning, leveraging comparative advantages, maximisation of the benefits of economies of scale and agglomeration, environmental conservation and social inclusion, through an integrated territorial development model.

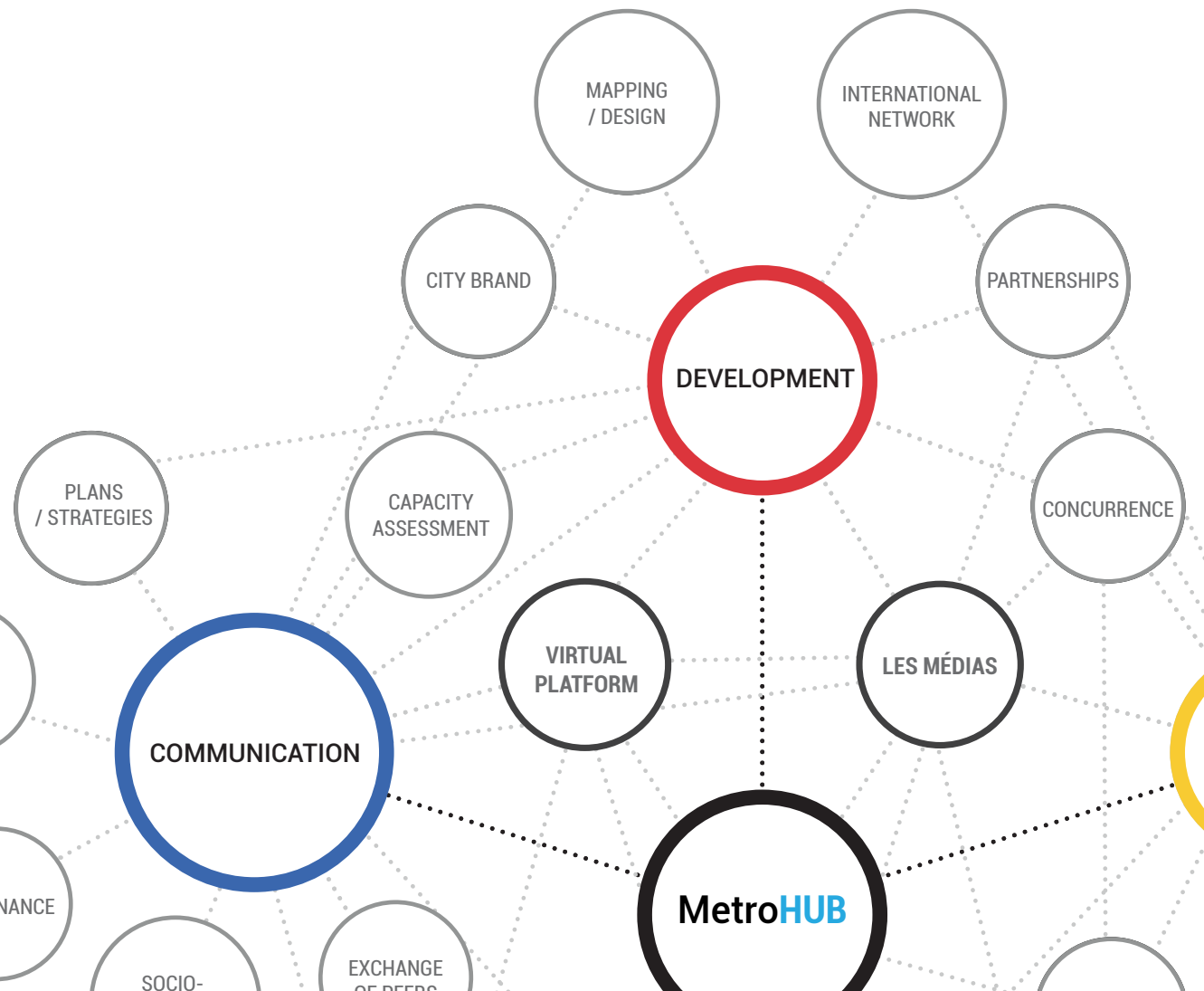
As a centre of excellence and innovation for sustainable urban development through MetroHUB's Metropolitan Management and Planning Methodologies, UN-Habitat helps build the capacity of metropolises to promote mutual benefit among their component small- and medium-sized cities; reduce pressure on primary or core cities and achieve territorial equity; improve spatial connectivity; increase productivity; strengthen institutional coordination at all levels; achieve greater sharing of the financial resources of different levels of government and more efficiently; execute more impactful projects at a lower cost, and innovate processes by freeing up undeveloped potential and making full use of local resources and assets.

.....
2 UN-Habitat Strategic Plan 2020- 2023
www.unhabitat.org





RELATIONSHIP WITH GLOBAL DEVELOPMENT PROGRAMMES



AGENDA AND SUSTAINABLE DEVELOPMENT GOALS³



The 2030 Agenda sets out 17 Sustainable Development Goals (SDGs) for countries and regions to formulate actions to achieve a new vision of sustainable development.

SDGs are also a planning tool for countries to use at both national and local levels. Their long-term vision constitutes a means of support for each country on its path towards sustained, inclusive and environmentally friendly development through public budgeting, monitoring and evaluation policies and instruments and by putting the dignity and equality of people at the forefront.

MetroHUB's Metropolitan Management and Planning Methodologies are effective channels for identifying, developing and implementing policies, regulations, actions, programmes and projects that contribute to achieving the sustainable development of the metropolis. SDGs therefore constitute a guide for decision makers and also a mechanism for measuring and evaluating progress in terms of fulfilment of sustainable-development targets. Specifically, the targets of Goal 11, Sustainable Cities and Communities, are a guide to the management and planning of metropolises.

³ Agenda 2030 - Objetivos de Desarrollo Sostenible, <https://www.un.org/sustainabledevelopment/>



GOAL 11 TARGETS ⁴

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums.

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.

11.3 By 2030, enhance inclusive and sustainable urbanisation and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage.

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations.

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management.

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities.

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning.

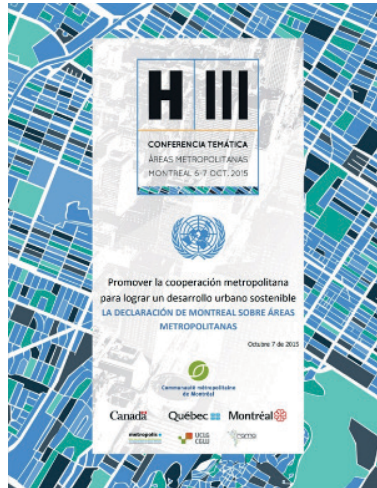
11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilising local materials.

Goal 11 targets place issues related to housing, transport systems, sustainable urbanisation, conservation of cultural heritage, territorial resilience, air quality, waste management, access to public space, urban-rural linkage and integrated planning on the metropolitan management and planning agenda.

⁴ Ciudades y Comunidades Sostenibles, <https://www.un.org/sustainabledevelopment/cities/>

THE MONTREAL DECLARATION ON METROPOLITAN AREAS⁵



The main goal of this declaration on metropolitan areas is to foster metropolitan cooperation to achieve sustainable urban development. It established a series of actions to transform the metropolises, which guide the development of a work agenda for metropolitan areas, such as integrated planning, a holistic and inclusive approach, sustainable development policies, formalisation of metropolitan areas, sustainable mobility, urban compact and mixed-used development, waste management, disaster risk, fight against climate change, rural-urban balance, eradication of poverty, protection of natural and cultural heritage and landscapes, citizen participation, right to the city and metropolitan financing.

MetroHUB's Metropolitan Planning and Management Methodologies promote territorial cooperation and help develop the metropolitan agenda with tools and instruments to materialise actions for the transformation of metropolises on the road to sustainable and integrated development.

⁵ Montreal Declaration on Metropolitan Areas – 2015, http://cmm.qc.ca/fileadmin/user_upload/documents/20151007_habitat_declarationMontreal-es.pdf

NEW URBAN AGENDA⁶



IMPLEMENTANDO LA NUEVA AGENDA URBANA

The New Urban Agenda's commitments for transforming city management and planning are to achieve sustainable urban development for social inclusion and eradication of poverty; urban prosperity and opportunities for all, and environmentally sustainable and resilient urban development.

MetroHUB's Metropolitan Planning and Management Methodologies are tools for achieving the commitments set out in paragraphs 90, 91 and 96 of the New Urban Agenda. The goal is to create fair, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements, promoting prosperity and quality of life for all. The tools are designed to:

- Readdress the way we plan, finance, develop, govern and manage cities and human settlements to achieve sustainable development and prosperity for all.
- Define and implement inclusive and effective urban policies and laws for sustainable urban development by national governments, together with the contribution of sub-national governments and civil society.
- Adopt integrated, people-centred approaches to urban and territorial development based on drivers of change that include:
 - *Developing and implementing urban policies at the appropriate level with integrated systems of cities and human settlements and cooperation among all levels of government.
 - *Strengthening urban governance.
 - *Reinvigorating integrated and long-term urban and territorial planning and design.
 - *Supporting effective, innovative and sustainable financing frameworks and instruments.

⁶ New Urban Agenda, <https://habitat3.org/wp-content/uploads/NUA-English.pdf>

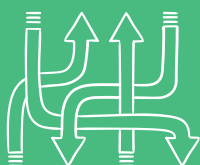


METROPOLITAN PLANNING AND MANAGEMENT METHODOLOGIES

METHODOLOGIES



INTRA-METROPOLITAN BORDER PLANNING



GOVERNANCE OF METROPOLITAN INTERDEPENDENCIES



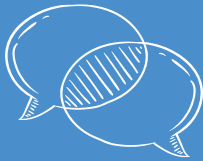
PARTICIPATORY METROPOLITAN PLANNING



METROPOLITAN VISION AND MANAGEMENT



METROPOLITAN INNOVATION



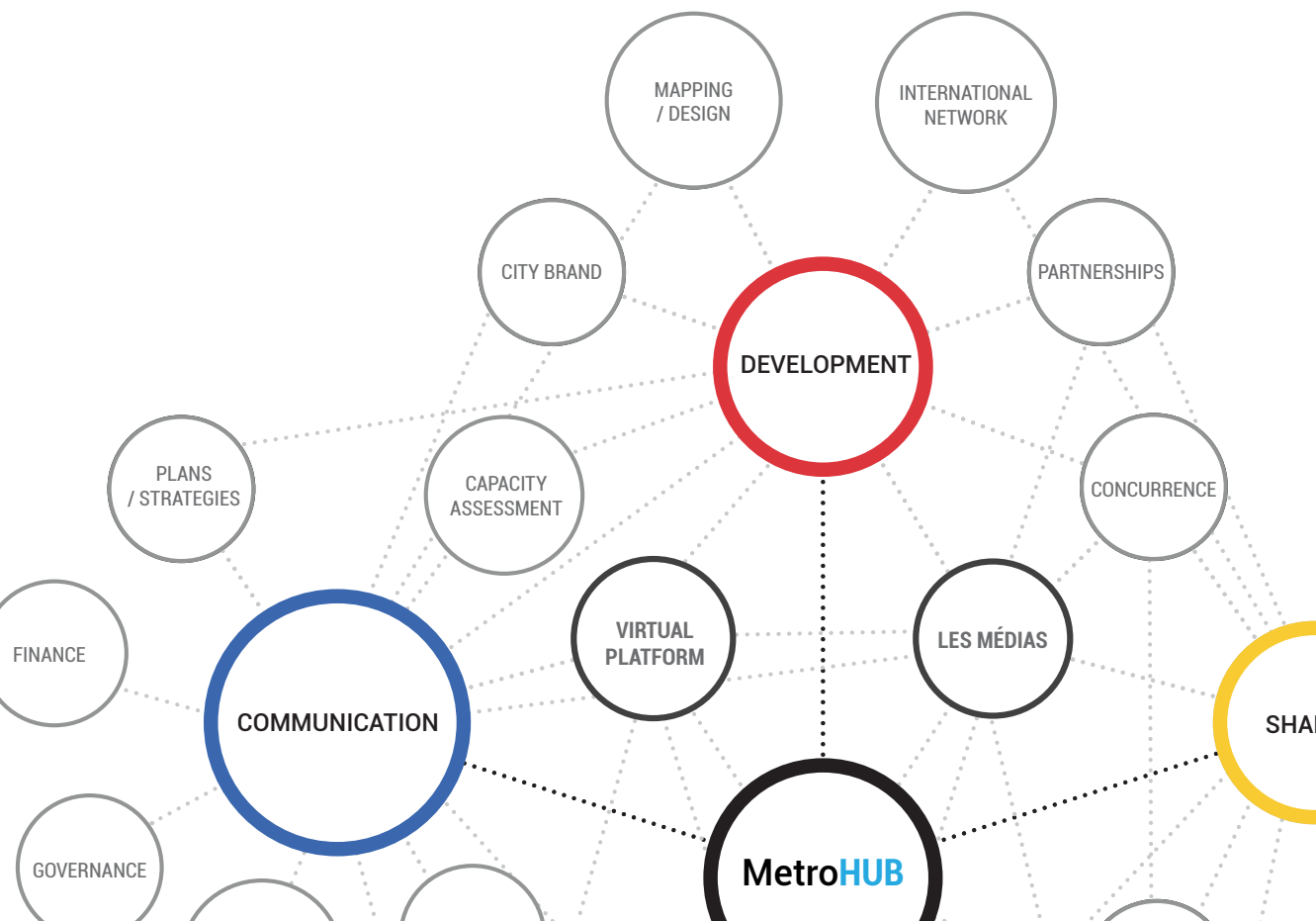
DIALOGUE WITH METROPOLITAN PEERS



METROPOLITAN INNOVATION PROJECTS



**METROPOLITAN IMPACT
OF TERRITORIAL PROJECTS**





INTRA-METROPOLITAN BORDER PLANNING⁷

This methodology aims to provide tools to address the challenges of border regions, primarily conurbation areas within the metropolis, where obstacles exist to investment and decision-making at the local level and therefore supramunicipal planning is required. It is based on social mapping concepts that enable us to identify the vision and needs of the population residing in the border area or on the border, and the vision and challenges of local government in managing these areas, and on the concept of urban acupuncture that we can use to implement projects to address the area's critical needs.

The unprecedented growth of urbanisation means that populations, economic activities, social and cultural interactions and environmental impacts become concentrated in cities. Contemporary cities are therefore an expression of the dynamics, speeds and intensities of daily life for the thousands of citizens who are increasingly concentrated in cities.

With the advance of urban and peri-urban growth, cities are often part of densely populated metropolitan areas. Local governments must assume new forms of democratic participation and supra-local governance and implement new mechanisms and strategies for inter-territorial coordination.

One of the phenomena of urban dynamics is conurbation, where two or more cities merge, giving rise to a new territoriality with, inter alia, social, cultural, economic and political interrelationship dynamics, where a physical integration and a political-administrative split occur simultaneously.

Conurbation is an urban process commonly occurring in metropolitan areas, but which is poorly governed, planned and managed in boundary or border areas by governments because of multiple territorial dynamics occurring in several localities and very often involving political-administrative disputes. It leads governments to abandon this new territoriality because they find limitations in their action through a lack of competency to address urban dynamics beyond the political-administrative limits of their cities.

This kind of phenomenon must therefore be addressed at the metropolitan/regional level, based on integrated planning that can overcome the cities' competency limitations and implement integrated, polycentric, balanced territorial management policies, giving rise to cooperation and reciprocal support between cities and human settlements to strengthen the role of cities and new forms of direct interaction between all levels of government and the society that lives in these areas.

The dynamics present in these border or boundary areas must be administrated, planned and

⁷ Reference Documents Zona de Bordes, Emilio and Angela Giglia. (2008). Las reglas del desorden: habitar la metrópoli. UAM-AZC, Siglo XXI. Mexico. – zonas de bordes, <https://leerlaciudadblog.files.wordpress.com/2016/05/duhau-y-giglia-las-reglas-del-deorden-habitar-la-metrc3b3poli.pdf>, Luis Sánchez Ayala (2015). De territorios, límites, bordes y fronteras: una conceptualización para abordar conflictos sociales. www.revistas.uniandes.edu.co

managed in a special way. It involves a mixture of individualities, a specific territory that, by merging with another, gives rise to a new, enlarged and enriched one, whose inhabitants use it without differentiating boundary limits. Although this phenomenon is rooted in a physical integration, it transcends territorial continuity inasmuch as it generates different dynamics of social, cultural, political and economic interaction that fail to find a political-administrative context in line with those needs. In most cases, it leads to tensions and ruptures that have territorial repercussions and affect the quality of life of the inhabitants of these border areas. Inadequate treatment of so-called border areas is a source of schisms and breakdowns in the territorial development of cities.

Goal

To identify new forms of administration, planning and management of border regions in metropolitan areas, based on cooperation between local governments and the participatory interaction of society.

Key Actors

Representatives of conurbation communities living on the border or in the border area, and representatives of conurbation governments in the metropolis that are responsible for dealing with the issues creating tensions in the area.

Results

This methodology is applied to:

- Establish metropolitan actions to manage the border or the border area.
- Identify projects to be implemented on the border or in the border region.

Methodological Structure

This methodology, applied in three stages, will enable participants to exchange views on the experience of the society living in the border area and the experience of managing a border area from the local government's competencies, leading them to jointly identify new forms of administration, planning and management of the border area, based on concepts of cooperation and integration.

It is a model of participatory planning, among inhabitants of the area and the government that manages it, based on the interpretation of territory and its conflicts using maps of the border area, with a sophisticated concept of linking up the visions of those residing in the area and those who manage it: "people inhabiting the territory are those who know it" and "people managing the territory are those who know the challenges of governing it".

Stages



1. Social and Government Mapping⁸

Goal: For key actors to interpret territory and conflicts to understand them using a multi-dimensional approach, to identify tensions and issues, and to find relationships of common interest for territorial development and quality-of-life improvement.

Participatory Modality: Group

Two working groups will be formed. One group will be representatives of the community living in the border area, to do the social mapping; the other will be a group of representatives of the local governments managing the conurbation area, to do the government mapping.

Participation will consist of two steps:

First Step: Each group will draw up an interpretation of the territory and its conflicts based on the experience they have with the border area, from maps, relating their experiences to issues of territorial development including mobility, the environment, territorial organisation, housing, infrastructure, public services, public space, territorial resilience, employment, and security, which arise in the area.

8 Reference Documents

HABEGGER, Sabina and MANCILA, Iulia (2005): La cartografía social como estrategia para diagnosticar nuestro territorio. Publication from the Freire Seminar. University of Malaga http://acervo.paulofreire.org:8080/jspui/bitstream/7891/4034/1/FPF_PTPF_01_0693.pdf

Cartografía Social – Juan Herrera. Net <https://juanherrera.files.wordpress.com/2008/01/cartografía-social.pdf>

The key actors will identify the conflicts and opportunities of the border area, from the perspective of how they conceive, perceive, experience and manage the conurbation's spatial reality, feeding the spatial analysis with social, economic and territorial management issues, generating a shared reflection to consolidate readings and visions of the border area, collective and multi-dimensional knowledge of the area, and establish support for future actions where each one has a role to play for the common good.

Second Step: After each group has mapped the border area, they will each present the map to the plenary, identifying the common issues in terms of conflicts and opportunities between the social vision and the government vision of the border territory. These will be consolidated by the methodology's moderator.

Participation material:

1. Mapping:

- i. Maps of the conurbation border area (one for each group).
- ii. A map of the border area for consolidation of the joint vision of the territory.
- iii. Three sets of icons (one for each group and one for mapping the joint vision), representing each territorial development issue, such as mobility, the environment, territorial organisation, housing, infrastructure, public services, public space, territorial resilience, employment, and security, that arise in the area, to be incorporated into the map of the area representing the conflicts or opportunities of the conurbation area identified by each group.

2. Work Sheets:

- i. Work sheet for Social Mapping
- ii. Work sheet for Government Mapping
- iii. Work sheet for joint visions of interpretation of the border area.

WORK SHEET
STAGE 1: Social Mapping

Group: Community Representatives
Border Area: _____

Activity: According to your experience of living in the border area, identify the conflicts or problems and the opportunities that occur in it, relating them to the suggested topics and, if applicable, added topics. State in each one whether they are matters that go beyond the political-administrative limits of conurbation cities, requiring management from the metropolitan level.

Topics	Conflicts / Problems	Opportunities	Metropolitan Issue
Mobility			
Environment			
Territorial Organisation			
Housing			
Infrastructure			
Household Utilities (water, lighting, electricity, refuse, gas, etc.)			
Health			
Education			
Public Space			
Territorial Resilience			
Employment			
Security			
Others			

WORK SHEET
STAGE 1: Government Cartography

Group: Government Representatives of Conurbation Cities
Border Area: _____

Activity: Based on your experience of managing the border area from your local government competencies, identify the conflicts or problems and the opportunities occurring in it, relating them to the suggested topics and, if applicable, added topics. State in each of them whether they are matters that go beyond the political-administrative limits of the conurbation cities, requiring management from the metropolitan level.

Topics	Conflicts / Problems	Opportunities	Metropolitan Issue
Mobility			
Environment			
Territorial Organisation			
Housing			
Infrastructure			
Household Utilities (water, lighting, electricity, refuse, gas, etc.)			
Health			
Education			
Public Space			
Territorial Resilience			
Employment			
Security			
Others			

WORK SHEET

STAGE 1: Joint Vision of Interpretation of the Border Area

Group: Plenary of Community and Government Representatives from Conurbation Cities

Border Area: _____

Activity: Consolidate common issues of social mapping and government mapping, on the territorial interpretation of the border area, and identify which of these issues need to be addressed locally and which need addressing at the metropolitan level. Generate a joint map.

Topics	Conflicts / Problems	Opportunities	Metropolitan Issue
Mobility			
Environment			
Territorial Organisation			
Housing			
Infrastructure			
Household Utilities (water, lighting, electricity, refuse, gas, etc.)			
Health			
Education			
Public Space			
Territorial Resilience			
Employment			
Security			
Others			

2. Urban Acupuncture⁹

Goal: To identify projects of local and metropolitan scope to be carried out in the border area to address the problems and opportunities of the conurbation territory.

Participatory Modality: Mixed Group of Key Actors

Groups will be organised according to development issue topics, with the participation of community representatives and government representatives from the conurbation cities that are charged with the development issue in question.

Participation will consist of two steps:

Step One: Potential projects will be identified in each of the topic groups to address the problems or opportunity identified in the corresponding topic, according to the table of the joint vision of interpretation of the border consolidated in stage one, determining whether this is a local or metropolitan level project.

Second Step: After completing the work in groups, each of them will present the results to the plenary. A discussion will be opened to improve or transform the group's proposal and reach an agreement on the project proposal. The results of the plenary meeting will be fed into the joint map consolidated in stage 1, adding the agreed projects to the problems and opportunities identified in it.

Participation Material:

1. Mapping: The joint map consolidated at stage 1 will be used.

2. Topic Group Work Sheet: A work sheet will be implemented for each topic group drawn up according to the development issues identified in the stage-1 work sheet. Joint Vision of Interpretation of the Border Area.

3. Project Proposal Consolidation Work Sheet

9 Documentos de Consulta

J Lerner (2005) Acupuntura Urbana – academia.edu

Regeneración Urbana Integrada: proyectos de acupuntura en Medellín.

https://scholar.google.com.co/scholar?q=acupuntura+urbana&hl=es&as_sdt=0&as_vis=1&oi=scholart

WORK SHEET
STAGE 2: Urban Acupuncture

Topic Group: _____

(mobility, environment, territorial organisation, housing, infrastructure, public services, public space, territorial resilience, employment, security, etc., arising in the area)

Participants:

Government Representatives of Conurbation Cities

Community Representatives

Border Area: _____

Activity: Identify potential projects for the border area related to the topic under analysis by the group. Establish whether they fall within the scope of national level metropolitan projects.

The project should address the problems or opportunity identified in the table of the joint vision of interpretation of the border area consolidated in stage 1.

Topic Problems / Opportunity (Transcribe the problems / opportunities identified in the table of the joint vision of interpretation of the border area consolidated in stage 1)	Description of the Project	Local Level	Metropolitan Level
1.			
2.			
3.			

WORK SHEET

STAGE 2: Consolidation of Border Area Project Proposals

Group: Plenary of Community and Government Representatives from Conurbation Cities

Border Area: _____

Activity: Consolidate the project proposals agreed upon in the plenary meeting. Establish whether they are local or metropolitan in scope. Feed the projects into the joint map by adding them to the corresponding problems/opportunities identified on the map.

Topics	Description of the project	Local Level	Metropolitan Level
Mobility			
Environment			
Territorial Organisation			
Housing			
Infrastructure			
Household Utilities (water, lighting, electricity, refuse, gas, etc.)			
Health			
Education			
Public Space			
Territorial Resilience			
Employment			
Security			
Others			

3. Metropolitan Management Actions

Goal: To identify governance, planning, financing, capacity building and socio-environmental issues to be considered in order to build a metropolitan management model of the border area.

Participatory Modality: Mixed Groups

Groups will be formed with community and government participants.

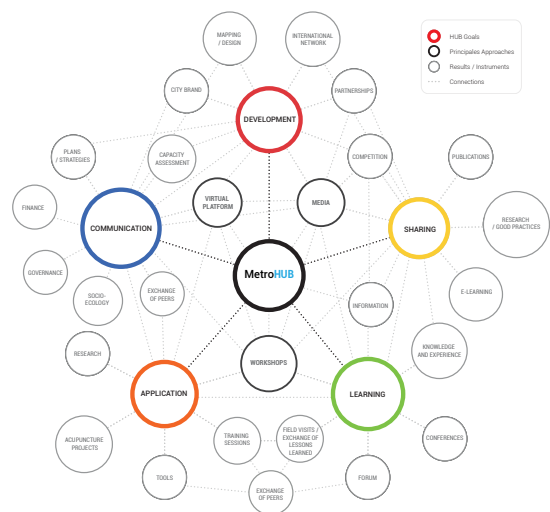
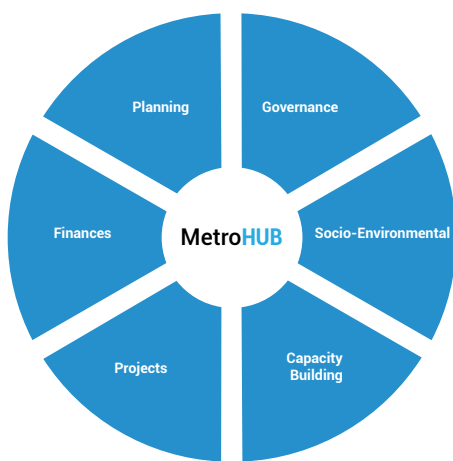
Participation will consist of two steps:

First Step: The groups will develop proposals for governance, planning, financing, capacity building and socio-environmental issues that drive metropolitan management of the metropolitan-scale problems, opportunities and projects identified in stages 1 and 2.

Second Step: Each group will present its metropolitan management proposals to the plenary of the participants. A discussion will be opened to improve or transform the proposal for action and the proposals agreed upon at the plenary meeting will be consolidated.

Participation Material:

1. Action proposals sheet
2. Sheet for consolidating metropolitan action proposals.
3. Orientation posters for metropolitan management issues and instruments



WORK SHEET

STAGE 3: Proposal for Actions in Metropolitan Management

Group No: _____

Participants:

Government Representatives of Conurbation Cities

Community Representatives

Border Area: _____

Actividad: Identify potential projects for the border area related to the topic under analysis by the group. Establish whether they fall within the scope of national level metropolitan projects. The project should address the problems or opportunity identified in the table of the joint vision of interpretation of the border area consolidated in stage 1 and 2.

Topic Problems / Opportunity	Project proposal at metropolitan level	Metropolitan action
Transcribe the problems / opportunities identified in the table of the joint vision of interpretation of the border area consolidated in stage 1 and 2		Governance, planning and finance, Capacity building and Socio-environmental issues
1.		
2.		
3.		

WORK SHEET

STAGE 3: Consolidation of Action Proposals for Border Area Management

Plenary: Conurbation City Government Representatives and Community Representatives

Border Area: _____

Activity: Consolidate the metropolitan action proposals for governance, planning, finances, capacity building and socio-environmental issues management, agreed in the plenary meeting for metropolitan management of the border area.

Metropolitan Action	Description of the Metropolitan Action	Problems, opportunity or project managed with the metropolitan action
Governance	1.	
	2.	
	3.	
Planning	1.	
	2.	
	3.	
Financing	1.	
Capacity Building		
Management of Socio-Environmental Issues		

Socialisation of Workshop Results

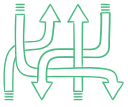
With the three stages completed, two activities will be done to close out the workshop:

1. The moderator will present the conclusions of the action proposals for metropolitan border-area management.
2. A committee will be formed to present and promote the action proposals to the metropolitan authorities (metropolitan councils, boards or committees, depending on the scenario in the metropolitan areas).

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



GOVERNANCE OF METROPOLITAN INTERDEPENDENCIES¹⁰

The aim of this methodology is to provide the metropolis' actors with a tool for addressing, managing and recognising specialities and for creating a plan of territorial complementarity as a guide for the governance of metropolitan interdependencies.

The growth process of cities and the consequent formation of metropolitan areas are challenges to the traditional ideas of territorial management marked primarily by local jurisdictions of government competence and by the political-administrative boundaries of each city. It forces us to readdress how we govern, plan and manage territorial development issues in a metropolis.

Metropolitan areas are global economic and cultural nodes. They can project themselves as real engines of economic growth and innovation to the extent that they concentrate much of the gross domestic product (GDP) and goods and services for human development. They are also centres of attraction for skilled and informal labour.

In these nodes, each of the cities forming part of the metropolis fulfils a function of supply or demand in goods and services, becoming scenarios in which economies of agglomeration form, taking advantage of the endogenous possibilities, competitive advantages, cultural heritage and local resources, fostering an environment conducive to business activity and innovation. Dynamic, sustainable and inclusive economies develop throughout the metropolitan territory.

Interrelating the geography of the cities' territory with the flows of urban exchanges among the

cities within the metropolitan area will allow governance policies to be consistent with the reality of metropolitan dynamics, stopping the political-administrative boundaries of each city in the metropolis from hindering the development of the economic and social dynamics generated by the interdependencies in the metropolitan territory.

Metropolises require governance agreements among the different municipalities to allow access to the markets of goods and services on equal terms regardless of their location within the metropolitan area.

Interdependencies between the jurisdictions of the cities of a metropolis materialise from the diverse flows of social, economic and environmental exchanges appearing among them.

In this sense, because of these diverse flows that occur from the interaction of the inhabitants of a metropolitan area with the market of goods and services of the different cities within it, spontaneous interdependencies emerge that can be maximised or constrained by territorial development policies.

Generating effective systems of metropolitan governance over these interdependencies is essential to promoting economic prosperity, social cohesion and environmental sustainability in a metropolis. Metropolitan governance will

¹⁰ Documento de Consulta: López-Ghio, Ramiro; Ramírez, Juan Mauricio; Rojas, Fernando; Salazar Echavarría, Carlos; Bateman, Alfredo - BID- Fedesarrollo (2018): Interdependencia municipal en regiones metropolitanas <https://publications.iadb.org/es/interdependencia-municipal-en-regiones-metropolitanas-el-caso-de-la-sabana-de-bogota>

enable the consolidation of markets for goods and services, accessibility to them and a reduction in the transport times and costs separating one market from another.

Interdependencies are typical to all metropolitan areas. They exist as externalities of each of the cities within them. Their de facto development and function are limited by the difficulties of the political-territorial division of the metropolis and, although these occur and are recognised, there is a lack of planning to specialise the functional vocation of each of the metropolis' cities. The failure by governments, the private sector and academia to recognise and manage the specialisations of the cities in the metropolis limit and hinder its development and competitiveness.

Managing the externalities of the goods and services of the cities within metropolitan areas can remove barriers and establish formal interdependencies and administrate them in order to capitalise on their multiple benefits.

Goal

To recognise the interdependencies arising in the metropolitan territory and identify metropolitan management actions for their governance.

Key Actors

Representatives of the government sector of the cities within the metropolis, representatives of the private sector, representatives of the academic sector and representatives of the social sector of the metropolitan area who have a relationship with or knowledge of the following goods and services:

Goods and services: education, health, employment, household utilities, commerce, culture, recreation and leisure, industry, environment.

Results

This methodology is applied to:

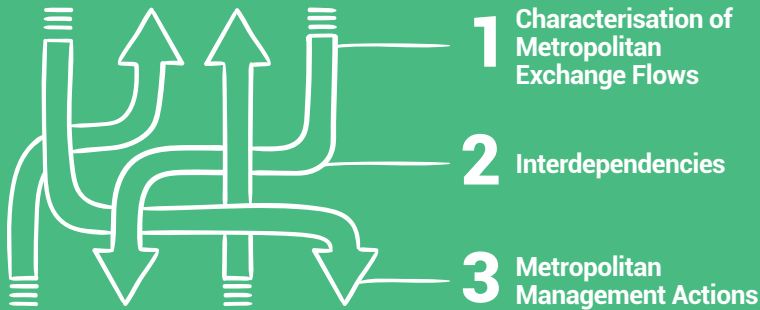
- Primary identification of the interdependencies occurring in the metropolis
- Establishing metropolitan actions for design of a governance model for the interdependencies.

Methodological Structure

This methodology, applied in three stages, will allow participants to use their knowledge to contribute to the identification of interjurisdictional flows of exchanges of goods and services, to identify specialities in the functions of the cities of the metropolis, and to propose metropolitan management actions for metropolitan governance of the interdependencies.

This will lay the groundwork for studying a metropolitan management model for each interdependency identified.

Stages



1. Characterisation of metropolitan exchange flows

Goal: To get key actors to apply their knowledge about the provision of sectoral goods and services to identify the flows arising through exchange because of interjurisdictional supply and demand between the cities within the metropolitan area.

Participatory Modality: Group

Sectoral groups will be formed with participants from the different sectors with knowledge about the provision of the good or service to be analysed.

Goods and services: Education, health, employment, household utilities, commerce, culture, recreation and leisure, industry, environment..

Participation will consist of two steps:

First Step: Participants will identify the city of the metropolis that exhibits the externality in the provision of the sectoral good or service. The externality occurs when the good or service is used to a high degree by inhabitants of other cities in the metropolis.

They will describe the characteristics of how the interjurisdictional flow occurs with respect to that good or service with an externality.

Second Step: Each group will present to the plenary the results of the characterisation of metropolitan exchange flows for the good or service analysed. A discussion will be opened to complement the analysis and the results will be consolidated according to cities with their respective externalities and flows.

Participation Material:

1. Externalities and flows work sheet.
2. Cities and externalities work sheet.

WORK SHEET

STAGE 1: Characterisation of Flows of Metropolitan Exchange Externalities and Flows

Sector Group, Goods and Services of _____

Goods and services: education, health, employment, household utilities, commerce, culture, recreation and leisure, industry, environmental.

Activity: According to your experience and knowledge about the provision of the good or service under analysis, identify the city of the metropolis where this externality in the provision occurs, in that it is mostly used by inhabitants of other cities of the metropolitan area, and describe the characteristics in which the interjurisdictional flow occurs for the use of the good or service.

Goods and Services Description	City of the Metropolis where the externality of provision arises	Interjurisdictional flows Describe the characteristics of the flows of people to access the good or service
1.		
2.		
3.		
4.		

WORK SHEET

STAGE 1: Characterisation of Metropolitan Exchange Flows Cities and Externalities of the Provision of Goods and Services

Group: Plenary

Goods and services: education, health, employment, household utilities, commerce,
culture, recreation and leisure, industry, environment.

Activity: The moderator will consolidate, by cities of the metropolis, the results of the groups' analyses of externalities and flows of the goods and services presented at the plenary meeting.

City	Goods or Services exhibiting externality	Interjurisdictional flows Describe the characteristics of the flows of people to access the good or service
City A		
City B		
City C		
City D		

2. Interdependencies

Goal: To identify the functional specialities of the cities within the metropolitan area and determine the interdependencies between them.

Participatory Modality: Group

Groups will be formed according to each city with participants from the different sectors who have knowledge about the city under analysis.

The participants, based on the results of stage 1, relating to externalities and flows occurring in the city under analysis, will identify the provision of goods or services in which it specialises, and the interdependencies occurring between the city (under analysis) specialising in the supply of goods or services and the other cities of the metropolis where demand for the good or service exists.

They will describe the characteristics of the speciality that is assigned to the city under analysis and how the interdependency occurs for each externality of the good or service exhibited by the city (why one city depends on the other).

Participation medium: Work sheet

WORK SHEET
STAGE 2: Interdependencies

City Group _____

Activity: Based on the goods and services exhibiting externality in the city under analysis, identify the speciality in the provision of goods or services, the functionality of the city in the metropolis, and according to the flows occurring in each of the goods and services with externalities, write down the interdependencies occurring between the city under analysis and the other cities of the metropolis,

The activity is based on the results of the consolidation table of Cities and Externalities of the Provision of Goods and Services from stage 1.

Goods or Services exhibiting externality	Speciality Based on the goods or services exhibiting externality, what type of functionality or specialty does the city under analysis have?	Interjurisdictional flows Describe the characteristics of the flows of people to access the good or service
1.		
2.		
3.		
4.		

3. Metropolitan Management Actions

Goal: Identify the metropolitan management actions for governance of the sectoral interdependencies between the cities in the metropolis.

Participatory Modality: Group

The groups formed in stage 1 will reorganise.

The participants, based on the results of stages 1 and 2, will identify the interdependencies occurring between cities for the provision of the good or service that the group is analysing.

They will then identify actions for governance, planning, financing, capacity building and socio-environmental management applicable to the metropolitan management of interdependency.

Participation medium:

- Work sheet.
- Orientation posters for metropolitan management issues and instruments

WORK SHEET

STAGE 3: Consolidation of Action Proposals for the Metropolitan Management of Interdependencies

Group: Good or Service Sector _____

Goods and services: education, health, employment, household utilities, commerce, culture, recreation and leisure, industry, environment.

Activity: Based on the results of stages 1 and 2, identify the interdependencies occurring among the cities because of the provision of the good or service that the group are analysing, and submit action proposals for governance, planning, financing, capacity building and management of socio-environmental issues that are applicable to the metropolitan interdependency management for the good or service that the group is analysing.

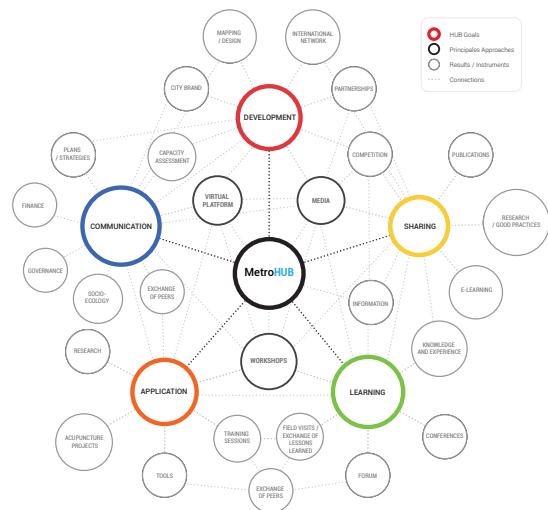
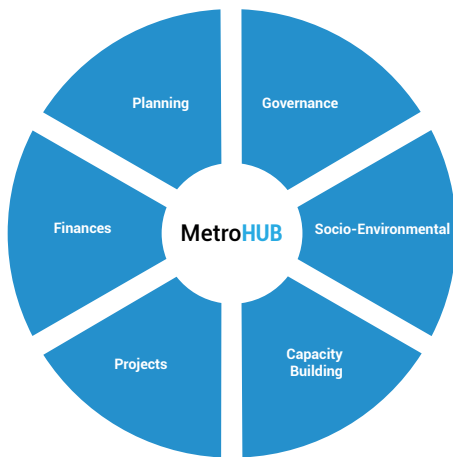
Interdependencies of the Goods and Services Sector

Cities supplying the good or service	City demanding the good or service
1.	1.
2.	2.

Metropolitan Management Actions

Metropolitan Action	Description of the Metropolitan Action
Governance	1.
	2.
	3.
Planning	1.
	2.
	3.
Financing	1.
Capacity Building	1.
Management of Socio-Environmental Issues	1.

Orientation posters for metropolitan management issues and instruments.



Socialisation of Workshop Results

With the three stages completed, two activities will be done to close out the workshop:

1. The moderator will present the conclusions of the action proposals for metropolitan border-area management.
2. A committee will be formed to present and promote the action proposals to the metropolitan authorities (metropolitan councils, boards or committees, depending on the scenario in the metropolitan areas).

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



PARTICIPATORY METROPOLITAN PLANNING¹¹

The aim of this methodology, which is applicable to the development of any plan on a metropolitan scale, is to provide a tool for collecting, organising and incorporating the actors' proposals, and to evolve from the concept of representative citizen participation to the concept of contributory citizen participation, where the actor of the metropolis participates in the territory's planning by presenting proposals with a territorial approach through the concept of territorialising the problems in order to territorialise the solutions. It is implemented using strategic diagnosis, questions eliciting proposals and the territorialisation of solutions to metropolitan challenges.

There is a greater need today for a participatory approach in the territorial planning of contemporary metropolises. Sustainable urban development relies on people's relationship to the territory. Citizen participation is therefore fundamental in the planning processes of metropolises given that, inter alia, they are where most of the population is concentrated, where most natural resources and environmental services are used, and where most of the economic and industrial development takes place.

Involving the territory's citizens and key actors in metropolitan planning consequently guarantees a finer reading of the territory. It furthers a common understanding of problems and engages actors to join the processes of metropolitan transformation based on the territorial challenges addressed by the integrated and coordinated planning of metropolises.

.....
11 Documento de Consulta: Cepal (2015) Manuales de la Cepal - La planificación participativa para lograr un cambio estructural con igualdad. https://repositorio.cepal.org/bitstream/handle/11362/39055/7/S1501278_es.pdf

Goal

To introduce contributory citizen participation into metropolitan planning processes.

Key Actors

Representatives of the public (national, regional and local authorities, and sectoral authorities such as transport, public services, housing, etc.), private, social, economic and academic sectors with a knowledge and interest in the metropolitan planning issue.

Results

This methodology is applied to:

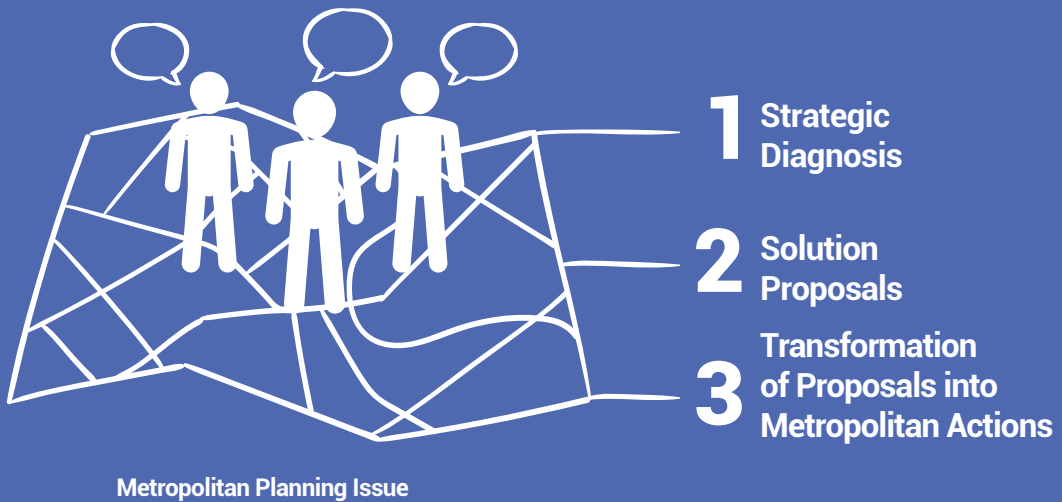
- Enable the various actors to have a common understanding of the realities and challenges of metropolitan development.
- Jointly construct the vision, goals, strategies, programmes and projects of the metropolitan plan, based on the proposals of the key actors in the metropolis.
- Achieve a metropolitan plan legitimised by all actors in the metropolitan territory.

Methodological Structure

This methodology, applied in three stages, will inform the participants' knowledge of the context of the metropolitan planning issue, put forward solutions to the problems identified via their

expertise and knowledge of the issues, and propose metropolitan management actions to be included as strategies, programmes or projects in the plan.

Stages



1. Strategic Diagnosis

Goal: To present to the key actors the context of the metropolitan planning issue, and the relevant topics giving rise to conflicts and opportunities.

Participatory Modality: Plenary

The representatives of the metropolitan authority will present the strategic diagnosis of the metropolitan issue to the key actors that have been called together.

Participation material: Strategic diagnosis

Developed by the metropolitan authority, indicating conflicts and opportunities from an integrated territorial approach, based on mapping.

2. Proposals of solutions to metropolitan challenges

Goal: To get key actors to submit proposals for solutions to conflicts or proposals for leveraging opportunities with respect to the metropolitan planning issue, based on their knowledge of the territory through elicitation questions.

Elicitation question:

Given your expertise and knowledge, what solution would you present to address the conflict related to: _____ (state the conflicts presented in the strategic diagnosis)

Given your expertise and knowledge, what would you propose to leverage the opportunity related to: _____ (state the opportunities presented in the strategic diagnosis)

Participatory Modality: Individual

Each participant will make a written contribution to the topical map used in the strategic diagnosis, laid out publicly on the work stage.

Logistics: The topical map used in the presentation of the strategic diagnosis will be displayed in a sufficiently large and visible manner in the conference room. Each map will show its conflicts and opportunities, and the elicitation questions will be placed beside each of them in large type.

Participation will consist of two steps:

First Step: Participants will engage individually by interacting with the maps displayed and will record their contribution in writing on the maps with the aid of sticky notes.

Second Step: At the end of the individual participation time, the moderator will organise the proposals and present them to the plenary, opening a discussion to complement the proposals presented.

Participation material: Map.

3. Transformation of proposals into metropolitan management actions

Goal: To encourage key actors to present proposals for strategies, programmes and projects to address the solutions and opportunities relating to the metropolitan planning issue.

Participatory Modality: Plenary

Multidisciplinary and inter-agency groups will be organised with the participants.

Based on the results of stage 2, the participants will transform the proposals into metropolitan strategies, programmes and projects, to be incorporated into the plan.

Participation material: Work sheet.

WORK SHEET		
STAGE 3: Transformation of Proposals into Metropolitan Management Actions		
Group No: _____		
Activity: Identify which metropolitan strategy, programme or project you could see implementing the opportunity-leveraging proposal or the conflict-resolution proposal in relation to the metropolitan planning issue.		
Opportunity-leveraging proposals for the metropolitan issue		
Proposals	Metropolitan Strategy / Programme / Project	Description of Strategy / Programme / Project
1.		
2.		
3.		
Conflict-resolution proposals for the metropolitan issue		
Proposals	Metropolitan Strategy / Programme / Project	Description of Strategy / Programme / Project
1.		
2.		
3.		

Socialisation of Workshop Results

With the three stages completed, two activities will be done to close out the workshop:

1. The moderator will present the conclusions of the proposals for metropolitan strategies, programmes and projects in order to incorporate the metropolitan planning issue into the plan.

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



METROPOLITAN VISION AND MANAGEMENT¹²

This methodology is aimed at identifying the vision of development and the opportunities for the metropolitan territory, to address them as metropolitan issues, manage them by integrating capacities and solving the problems that arise around their management, and thereby improve competitiveness and quality of life in the metropolis.

Metropolitan management is based on achieving a joint development goal for all cities that are part of the metropolis, enabling it to achieve competitiveness, attractiveness, as well as fairness, cohesion and social inclusion in the metropolitan area, in accordance with principles of sustainable development. In other words, it is an integrated development vision based on the territory's potentialities as poles of growth that in turn fulfil the function of being catalysts for transforming and developing the cities within the metropolis.

Metropolitan areas require a joint vision of territorial development to improve the income, conditions and quality of life of people living in the metropolitan territory. Identification of the vision of metropolitan development should stem from the mobilisation and active participation of the territorial actors; be based on the utilisation of existing or underused endogenous resources, as well as the opportunities derived from their situation in the general economic context, and integrate the various social, economic and environmental dimensions of development.

Goal

To get key actors in the territory to identify the potentialities and opportunities for development of the metropolis, in order to inform a definition of the metropolitan vision of territory's development and a pathway towards formalisation and consolidation of the metropolitan area.

Key Actors

The participation of leaders and representatives of the public, private and civic sectors is key to defining the approach to metropolitan development. Representatives of local, regional and metropolitan democratic institutions should work together with representatives of civil society, guilds, academia, business, etc., to take in a common vision of development that key actors in the metropolitan territory can agree upon.

¹² Reference Document: ECLAC (2015) Manuales de la Cepal – La planificación participativa para lograr un cambio estructural con igualdad. https://repositorio.cepal.org/bitstream/handle/11362/39055/7/S1501278_es.pdf

Results

This methodology is applied to:

- Identify the elemental inputs to define a metropolitan vision of territorial development.
- Identify the elemental inputs to structure a route for metropolitan management.

Methodological Structure

This methodology, applied in four stages, enables participants to identify the endogenous resources and opportunities of the territory using a metropolitan approach, and to identify actions to establish a metropolitan management route based on the vision of metropolitan development.

Stages



1. Knowledge

Goal: To get key actors to use their knowledge of the territory to identify the sectoral attractions of the metropolitan territory with an integrated territorial approach, through elicitation questions that will urge them think about the potential and opportunities for development of the metropolis.

Elicitation question: Given your expertise and knowledge, what potentialities and attractions are there in the natural system / road and transport system / housing system / goods and social services / production system?

Participatory Modality: Individual

Each participant will contribute to the sectoral map in written form.

Participation material: Map

There will be sectoral map, primarily of the natural system / road and transport system / housing system / social goods and services / production system, with information that stimulates analysis by the participants.

2. Focus

Goal: To get the key actors, using their experience in the management of the territory, to identify the common interests that generate interdependencies between neighbouring municipalities and between them and the core municipality, through questions that elicit discussion.

Elicitation question:

- Based on experience in territorial management, which factors (opportunities or imbalances) do you identify as uniting and calling for management between the neighbouring municipalities?
- Based on experience in territorial management, which factors (potentialities or imbalances) do you identify as uniting and calling for management between the core municipality and the other municipalities?

Participatory Modality: Group

Actors will be organised into groups, formed primarily of representatives of cities in the metropolis that border each other, and of representatives of other sectors that have a relationship with those cities.

Participation material: Work Sheet

WORK SHEET	
Group No. _____	Municipalities _____
<p>Activity1: Based on your experience in territorial management, what factors (potentialities or imbalances) do you identify that unite and call for management between neighbouring municipalities?</p> <p>What issue do you need to manage?</p>	
<p>Potentialities (Issues that will advance sustainable territorial development)</p>	<p>Imbalances (Issues constraining sustainable territorial development)</p>
<p>Activity 2 : Based on experience in territorial management, which factors (potentialities or imbalances) do you identify as uniting and calling for management between the core municipality and the other municipalities?</p> <p>What issue do you need to manage with the core city of the metropolis?</p>	
<p>Potentialities (Issues that will advance sustainable territorial development)</p>	<p>Imbalances (Issues constraining sustainable territorial development)</p>

3. Ideas

Goal: To get key actors, drawing on the identification exercise in stages 1 and 2 of the methodology, to develop four key ideas that the territory's metropolitan development vision must have, using elicitation questions to generate slogan/motto/branding ideas for the metropolitan territory.

Elicitation question:

- We are a territory of...?
- What territorial vocation identifies us within the national context?

Participation material: Poster

Posters/notices will be made using the territorial slogans conceived by the groups.

Participatory Modality: Groups

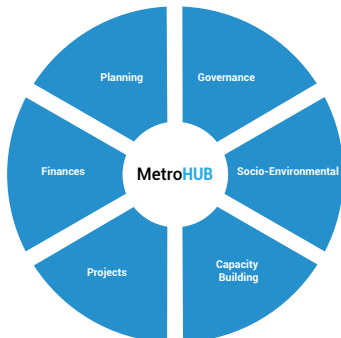
The groups formed in stage 3 will be maintained.

4. Proposals

Goal: To obtain action proposals from key actors with respect to planning, governance, financing, socio-environmental issues, projects and capacity building, for the formalisation and/or consolidation of the metropolitan area, through questions that elicit action proposals for metropolitan management actions.

Elicitation question:

- If you had the opportunity to make the decision on the metropolitan territory's management model, what actions would you take with regard to planning, governance, financing, socio-environmental issues, projects and capacity building?
- What instruments or mechanisms would you use?



Socialisation of Workshop Results

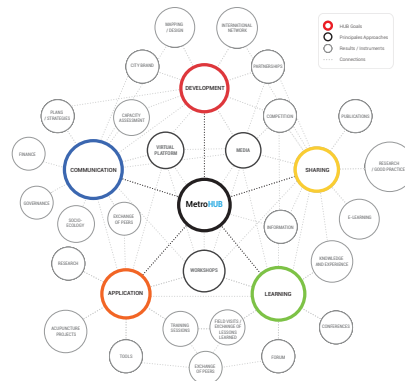
With the four stages completed, three activities will be done to close out the workshop:

1. Presentation of a summary of contributions on the territory's potentialities and slogan ideas for the metropolitan territory.
2. Collective participation on impressions of the results presented.
3. Participants will be informed about the systematisation and socialisation of the workshop results.

Participatory Modality: Individual

Participants will submit their proposals in writing on a MetroHUB metropolitan management orientation poster and/or a map that can be used territorialise the proposals.

Participation material: : Orientation posters and map.



Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



METROPOLITAN INNOVATION¹³

This methodology is a tool for developing metropolitan actors' management skills to react appropriately to metropolitan dynamics. It is intended to provide a guide for addressing these dynamics and finding ways to innovate in their management, capitalising on the knowledge of actors who deal with metropolitan problems on a daily basis.

The fast pace of urban growth means that territorial dynamics are constantly changing, as the growing population in the cities demands more and more diversification in the cities' goods and services. Metropolises find it challenging to respond to these realities in a timely and efficient manner.

Metropolitan programmes and projects need adapting to the new challenges in urban planning, transport, security, urban revitalisation, social inclusion and cohesion, environmental protection, water, energy, sanitation and climate change that require attention on a metropolitan scale because they are beyond the scope of local planning, governance and financing resources.

Local governments need to innovate ways to approach these challenges through new mechanisms and strategies of interterritorial coordination and to address them on a metropolitan scale. They should even innovate on existing metropolitan policies, programmes and projects that need to be updated to make current metropolitan management more efficient and enhance the attractiveness, competitiveness and social inclusion and cohesion of the metropolis. Metropolitan issues are dynamic in that they become complex, present new challenges or evolve.

Goal

For key actors in the metropolitan territory to innovate territorial development policies, programmes and projects on a metropolitan scale.

Key Actors

The process of innovating territorial development policies, programmes and projects should involve all key actors of the public, private, social and academic sectors that have the day-to-day role of applying and implementing the actions of these policies, programmes or projects in the metropolis, regardless of whether they have the decision-making role over them.

Results

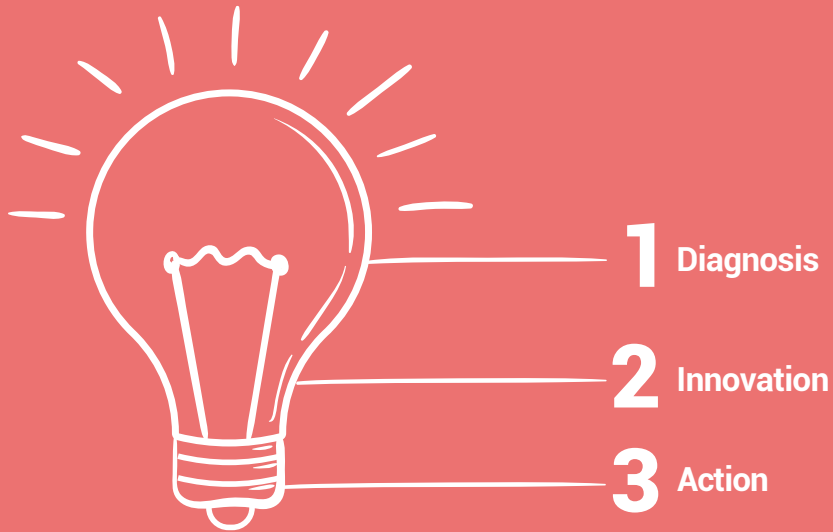
Territorial development policies, programmes and projects devised as instruments of metropolitan management, consistent with the current challenges of the metropolis.

Methodological Structure

This methodology, applied in three stages, will guide participants to innovate metropolitan management based on their identification of blockages or problems in metropolitan management and development. They will perform exercises in the transformation of metropolitan policies, programmes and projects to identify the management actions that should be implemented.

13 Reference Document: Gema González Romero – Universidad de Sevilla (2006) – Innovación Territorial y Políticas Públicas file:///C:/Users/Usuario/Downloads/Dialnet-InnovacionTerritorialYPolíticasPublicas-2219459.pdf

Stages



1. *Diagnosis*

Goal: To get participants to identify the problems that are arising as constraints to metropolitan management or development.

The methodology is applied to innovate policies, programmes or projects related to the various metropolitan issues that may arise owing to the particularities of each metropolis, which are proving difficult to manage or develop.

Management Issues	Development Issues
Governance Planning Finances Projects Others.	Mobility Environment Territorial Organisation Housing Infrastructure Public services Public space Territorial resilience Employment Others.

Participatory Modality: Group

Groups of participants from the various public, private, social and academic sectors will be organised, thereby establishing a blended vision of the problems occurring around the metropolitan issue that requires innovation.

Participation material:

Work Sheet

WORK SHEET	
Group No. _____	
Participants	
Metropolitan Issue (Management/Development)	
Problems	
Relevant Issues (choose the three most important problems)	1. 2. 3. 4.

2. Innovation

Goal: To transform the policies, programmes and/or projects related to the relevant problems identified in stage 1, Diagnosis, with respect to the metropolitan issue undergoing innovation.

The SCAMPER¹⁴ method will be used for the innovation process. It is a creative technique for generating new ideas, approaching the problem from new perspectives through questions related to seven verbs that prompt participants to work through problems from different angles.

The verbs used in the questions indicate possible ways to carry out these improvements, making changes or suggesting alternatives based on the answers obtained.

The word SCAMPER is an acronym formed by the initials of the following verbs:

Substitute

Combine

Adapt

Modify

Put to other uses

Eliminate

Rearrange

These are the key words used to ask the questions. The procedure is as follows:

Definition of the problem: In Stage 1, Diagnosis, three relevant issues of the problems related to the metropolitan issue requiring innovation were identified. These relevant issues are the problems in respect of which the questions will be asked to elicit new ideas.

Asking questions: At this point, we ask questions using the action verbs included in the acronym SCAMPER, then suggest answers to those questions.

The answers ordered and grouped will embody new approaches to the problems that will allow concrete actions to be taken to improve and transform metropolitan public policies, programmes and projects.

14 Reference Documents: Método SCAMPER, Como generar ideas. www.innovacion.cr/sites/default/files/article/adjuntos/herramientas_practicas_para_innovacion_1.0_scamper_1.pdf

SUBSTITUTE

What can we substitute to achieve/obtain...?

What cannot be substituted?

What happens if we substitute Process A for Process B?

Can we change the shape, colour or size?

What can be substituted to bring down costs?

COMBINE

Can we combine products or parts of them?

What can we combine with an external element?

Can we combine the advantages of different services or processes?

What would happen if we combined these features with...?

What combination of elements would lead to a reduction in costs?

ADAPT

What happens if we adapt the product for another function?

Can we adapt a competitor's idea to our product or service?

Can we adapt the model used by the USA, China, etc.?

Is there another use or utility we can adapt it to?

How can we adapt it to add another function?

What can we adapt to make it available to more users?

MODIFY

What can we modify to achieve/obtain...?

OTHER USES

Is it possible to find another use for our products?

Can it be used by other types of user?

ELIMINATE OR MINIMISE

Is it possible to reduce waste? How?

What can we do to simplify/economise, etc. a process?

Can we reduce the time taken to manufacture/process/deliver, etc.?

What would happen if we eliminated...?

REARRANGE

Can it be made bigger/smaller/lighter/heavier...?

*If we rearrange certain processes, will it have a smaller footprint?
Will there be less failure or waste?*

Participatory Modality: Group

Participation material: Work Sheet

Inter-institutional and interdisciplinary groups will be organised to ensure that the innovative ideas for the metropolitan issue are worked on from different angles.

WORK SHEET
INNOVATION STAGE

GROUP No. _____
PARTICIPANTS _____

METROPOLITAN ISSUE

(Brief description of the metropolitan issue requiring innovation, stating the problems arising and its significance in terms of metropolitan development)

ACTIVITY: Using the SCAMPER method, innovate on the relevant issues identified as the main problems in the Diagnosis Stage, generating ideas that reflect what the metropolitan territory would be like with _____ (describe the metropolitan issue managed and developed in an efficient, integrated and coordinated way)

Develop three innovation ideas related to the verbs of the SCAMPER Method:

Write the verb to be applied to the innovation _____

Develop the creative innovation idea.

1. _____

2. _____

3. _____

Identify three extra verbs you consider useful and develop an innovative idea for each:

Write the verb to be applied to the innovation _____

Develop the creative innovation idea

Write the verb to be applied to the innovation _____

Develop the creative innovation idea

Write the verb to be applied to the innovation _____

Develop the creative innovation idea.

3. Action

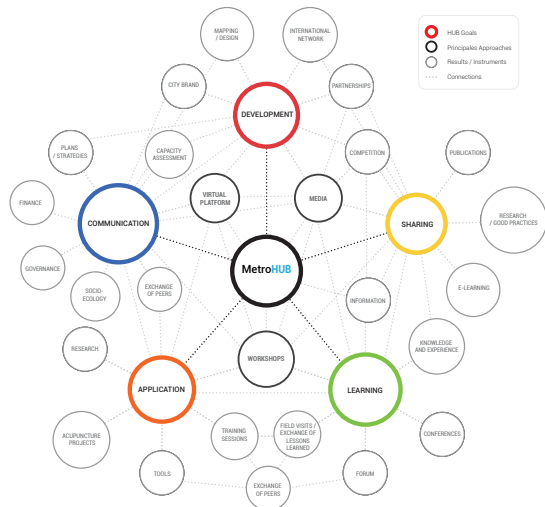
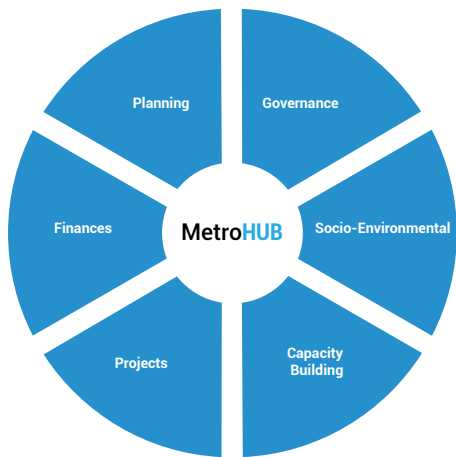
Goal: To obtain action proposals from key actors with respect to planning, governance, financing, socio-environmental issues, projects and capacity building, in order to implement the ideas for transforming the metropolitan issues generated in Stage 2, Innovation, through questions that elicit action proposals for metropolitan management actions.

Participatory Modality: Group

Work will continue within the same inter-institutional and interdisciplinary groups that have been formed for the previous stages.

Participation material:

- Orientation posters for metropolitan management issues and instruments
- Work Sheet



The participants will identify concrete metropolitan management actions to implement the innovative ideas for the metropolitan issues generated in Stage 2, Innovation, by filling out the following form:

<p style="text-align: center;">WORK SHEET STAGE 3: Action</p> <p style="text-align: center;">Group No.: _____ Metropolitan Issue: _____</p>		
<p>Innovation Idea (ideas generated in stage 2)</p>	<p>Metropolitan Management Action (MetroHUB Actions, Planning, Governance, Financing, Socio-Environmental Issues, Capacity Building)</p>	<p>Implementational Innovation Action (state which action implements the innovation idea)</p>
1. Idea:		
2. Idea:		
3. Idea:		

Socialisation of Workshop Results

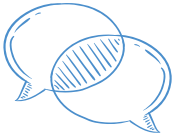
With the three stages completed, three activities will be done to close out the workshop:

1. Each group will present the innovation ideas for the metropolitan issue and the actions for implementing them.
2. A committee will be formed to present and promote the action proposals to the metropolitan authorities (metropolitan councils, boards or committees, depending on the scenario in the metropolitan areas).

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



DIALOGUE WITH METROPOLITAN PEERS

This methodology is designed to give officials of the cities within the metropolitan area a broader spectrum of thought and analysis, so that their local vision of the sectoral issues will have a metropolitan perspective, and to reach agreements between them to manage the issues in an integrated and efficient way.

The overarching aim today is for cities and human settlements to be inclusive, fair, safe, healthy, accessible, affordable, resilient and sustainable scenarios in order to promote prosperity and quality of life for all their inhabitants.

To this end, it is important for the overall aim to be consistent with the sectoral policies, with respect to the provision of public services, natural-resource management, land use, urban control, rural development, food security and nutrition, water and sanitation, health, education, environment, energy, housing and mobility, among other things.

Coordination becomes necessary at the different levels and scales of political administration, more so in urban agglomerations, whose challenges in implementing these sectoral policies transcend political-administrative boundaries.

To strengthen integrated management of the territory in metropolitan areas it is crucial to reorientate the way in which sectoral issues of metropolitan development are planned, designed, financed, developed, governed and managed, based on the promotion of coordination and cooperation between the government agents of the various cities within it who are responsible for managing sectoral issues.

The management of Metropolitan Common Affairs or issues requires agreement and sectoral and inter-sectoral dialogue among metropolitan actors.

Goal

To coordinate, with a metropolitan approach, the sectoral policies, programmes and projects whose impact transcends the local political-administrative limits to achieve efficiency and fairness in the management of the sectoral issue and metropolitan integration.

Sectoral Issues with a Metropolitan Impact

These are issues of territorial development that, to begin with, are under the jurisdiction of the municipalities/cities, but which are having an impact beyond the local borders.

These might be:



Housing



Mobility



Waste



Public Services



Natural Resource Management



Land Use



Urban Control



Rural Development



Food Security and Nutrition



Water and Sanitation



Health



Education



Environment



Energy



Others, depending on the dynamics and challenges of each metropolis

Key Actors

The process of coordinating sectoral policies, programmes and projects for metropolitan development should involve officials who are responsible for the sectoral issue to be coordinated, peer officials in these sectors, such as heads of housing offices in all the cities within the metropolis in the case of coordinating metropolitan housing policy, or the heads of infrastructure offices in the case of developing metropolitan infrastructure, or the heads of transport offices if the issue involves coordinating metropolitan mobility policy, etc.

Peer Officials:

Government officials holding equivalent positions or performing similar functions, who have the responsibility of managing the sectoral issue under analysis, in the various cities that form the metropolis.

Results

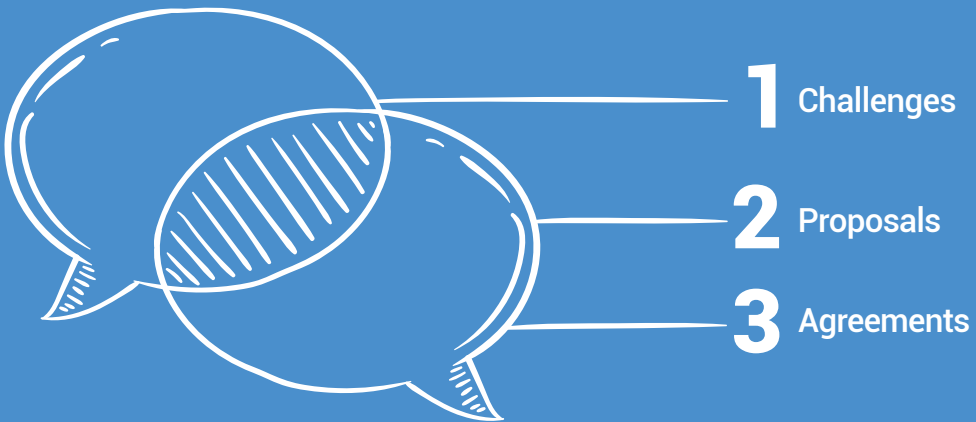
- Coordination and transformation of local sectoral issues with metropolitan impact on matters of metropolitan scale.
- Contribution to the efficiency and integration of territorial development.

Methodological Structure

This methodology, applied in three stages, will guide participants to coordinate the sectoral issue being addressed, through metropolitan management, starting with an identification of the challenges presented by the sectoral issue, and what its impact

is at the metropolitan level. They will then establish joint proposals to coordinate efforts with regard to, inter alia, administrative, technical, financial resources, and to define metropolitan agreements for implementing metropolitan management actions and instruments.

Stages



1. Challenges

Goal: For participants to identify the problems of the sectoral issue under analysis, the variables that are outgrowing the political-administrative limitations at the local level and the challenges they are facing in managing the sectoral issue.

Participatory Modality: Individual

Each participant will analyse the sectoral issue from their local sphere of competence, drawing on their experience in managing the issue and the problems they have to address.

Participation material: Work Sheet

Each participant will fill out the work sheet to document their analysis.

<p style="text-align: center;">WORK SHEET STAGE 1: Challenges</p>		
<p>Sectoral Issue : _____</p> <p>City: _____</p> <p>Official's name: _____</p> <p>Official's title: _____</p>		
Problems <small>(difficulties with management of the sectoral issue)</small>	Metropolitan Impact <small>(Specify which variable/situation of the problems goes beyond the boundaries of the city you represent)</small>	Challenge <small>(Explain which actions you need to implement to deal with the problems at the local level)</small>
1. Problems:		
2. Problems:		
3. Problems:		

2. Proposals

Goal: For participants to identify, from their experience with management and knowledge of the sectoral issue, the potential joint and coordinated solutions to address the challenges of managing the sectoral issue on a metropolitan scale.

Participatory Modality: Group

Groups will be formed of peer officials from the different cities that make up the metropolis. .

Participation material: Work Sheet

The groups of officials will fill out a work sheet to consolidate the problems, metropolitan impacts and challenges that they find have similarity in all or most of the cities, based on the results of stage 1. Challenges.

Once the common problems have been identified and consolidated, the group of participants will analyse and identify potential solutions based on principles of integration, coordination and efficiency, generating metropolitan-scale proposals for management of the sectoral issue.

<p style="text-align: center;">WORK SHEET STAGE 2: Proposals</p>		
<p>Sectoral Issue : _____</p> <p>Cities participating in the group: _____</p> <p>_____</p> <p>_____</p>		
<p>Common problems (based on the stage-1 work sheets, identify common problems for all cities participating in the group)</p>	<p>Metropolitan Impact (Specify the variables for which the problems exceed local manageability levels and require coordinated and integrated solutions for all the cities within the metropolis)</p>	<p>Metropolitan Solution Proposals (Identify solutions to the problems based on principles of integration and coordination among the cities in the metropolis, which generate efficiency in the management)</p>
1. Problems:		
2. Problems:		
3. Problems:		

3. Agreements

Goal: To reach management agreements with a metropolitan approach among the cities within the metropolis, to address the proposals for solutions to the problems of the sectoral issue based on the identification of metropolitan actions in the areas of governance, planning, financing, capacity building, socio-environmental issues and projects.

Participatory Modality: Plenary of participants

Each of the groups formed for stage 2 will present the identified solution proposals to the plenary of participants.

Once all the solution proposals have been presented, a discussion of these proposals will be held in the plenary, guiding participants towards identifying the metropolitan management actions and generating agreements for the formalisation and implementation of those actions.

Participation material:

1. Work Sheet

The plenary's moderator will fill out the work sheet, documenting the metropolitan management actions identified and agreed upon by the plenary, and the agreements reached among peer officials to address the sectoral issue from a metropolitan approach.

WORK SHEET

STAGE 3: Agreements / Work in Plenary

Sectoral Issue: _____

Cities participating in the group: _____

Metropolitan Management Actions

(Write down the agreements reached in the plenary by the peer officials of the cities in the metropolis for the formalisation and implementation of the metropolitan management actions identified in the previous point, to address the metropolitan sectoral issue. Peering Agreements (Write down the metropolitan management actions identified by the plenary to be implemented in the metropolitan sectoral issue according to the following topics for metropolitan management. Use the metropolitan issue management sheets and metropolitan management instruments or tools for support.

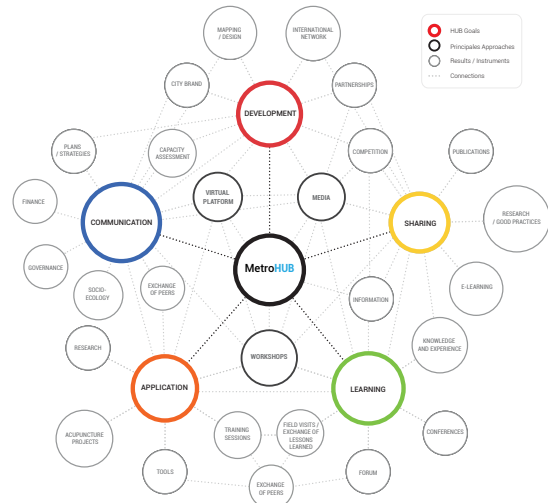
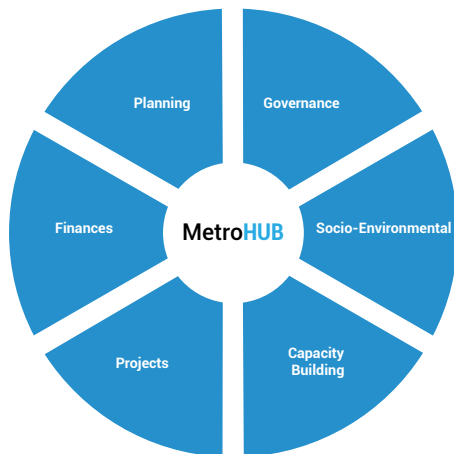
Governance <small>(For example, definition of guidelines, standards, metropolitan committee, etc.)</small>	Planning <small>(For example, metropolitan sectoral plans, metropolitan sectoral programme, etc.)</small>	Finances <small>(For example, metropolitan fund, metropolitan resources exchange, metropolitan income, etc.)</small>	Capacity Building <small>(For example, technical visits, forums, workshops, studies, knowledge transfer, etc.)</small>	Projects <small>(For example, metropolitan equipment, infrastructure works, etc.)</small>	Socio-Environmental <small>(for example, declaration of protected areas, environmental guidelines for the use of renewable energies, etc.)</small>
1. Action:	Action:	Action:	Action:	Action:	Action:
2.					

Peering Agreements

(Write down the agreements reached in the plenary by the peer officials of the cities in the metropolis for the formalisation and implementation of the metropolitan management actions identified in the previous point, to address the metropolitan sectoral issue.

1. Agreement: For example, Metropolitan standard or regulation / agreements or meeting of minds / delegation of local competencies to the metropolitan 1. Agreement: entity or institutions, etc.

2. Orientation posters for metropolitan management issues and instruments



Socialisation of Workshop Results

With the three stages completed, two activities will be done to close out the workshop:

1. The moderator will present the conclusions of the peer officials' agreements to the plenary regarding the metropolitan actions to be implemented and the model for formalising and implementing the accord.
2. A committee will be formed to present and promote the action proposals to the metropolitan authorities (metropolitan councils, boards or committees, depending on the scenario in the metropolitan areas).

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



METROPOLITAN INNOVATION PROJECTS

This methodology is a special application of the “Metropolitan Innovation” methodology, for project innovation. It is based on the same concepts of innovation and is orientated towards providing tools for the metropolitan actors to identify projects of metropolitan scope or to develop territorial projects with a metropolitan approach.

Goal

For key players, using a metropolitan approach, in the metropolitan territory to innovate the model for planning, managing and financing territorial development projects.

Key Actors

The process of innovating territorial development projects should involve all key actors of the public, private, social and academic sectors that have the day-to-day role of investigating, managing, applying and implementing the actions of the policies, programmes related to the projects in the metropolis, regardless of whether they have the decision-making role over them.

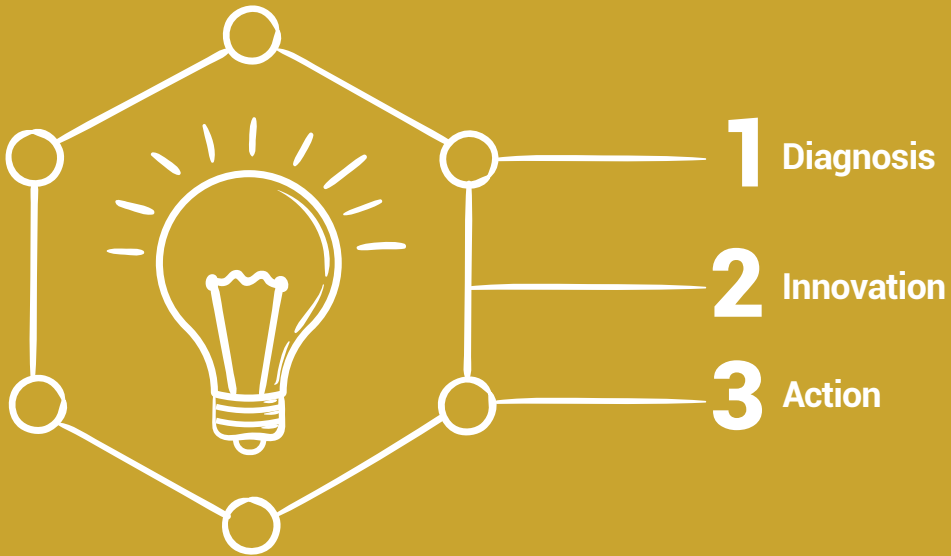
Results

Territorial development projects with a metropolitan-wide impact, consistent with the current challenges in the metropolis and with efficient investment and financial management.

Methodological Structure

This methodology, applied in three stages, will guide participants to innovate the territorial development project, incorporating the metropolitan approach, starting by identifying blockages or problems with the instruments of planning, financing and managing territorial development. They will carry out exercises to transform these blockages or problems and make it possible to develop and implement projects with a metropolitan-wide impact.

Stages



1. Diagnosis

Goal: To get participants to identify the constraints on the development and implementation of the metropolitan-scale project.

The methodology is applied to innovate projects related to the metropolitan issues or circumstances that include those mentioned below, which may arise owing to the particularities of each metropolis, and which are proving difficult to manage or develop.

Metropolitan Issue / Circumstance	Project Type	Constraints
<ul style="list-style-type: none"> Mobility Environment Territorial organisation Housing Public services Public space Territorial resilience Employment Others 	<ul style="list-style-type: none"> Infrastructure Social Economic Environmental 	<ul style="list-style-type: none"> Governance Legal framework Management Model. Planning Finances

Participatory Modality: Group

Groups of participants from the various public, private, social and academic sectors will be organised to establish a blended vision of the

limitations in the development and implementation of the territorial development project being innovated with a metropolitan approach.

Activities:

1. Metropolitan Issue	2. Project	3. Framework of Action
Describe and classify the problems to be solved.	Evaluate the metropolitan scale of the project.	Identify the constraints upon the project's development and implementation on a metropolitan scale.

Participation material: Work Sheet

WORK SHEET Diagnosis				
Group No.: _____				
Participants:				
METROPOLITAN ISSUE <i>(Problems affecting more than two cities in the metropolitan area and giving rise to the need to develop the project)</i>				
Type <i>(Mobility, Environment, Territorial organisation, Housing, Public services, Public space, Territorial resilience, Employment, Others.)</i>				
Description				
Project to Be Developed				
Type <i>(Infrastructure, social, economic, environmental)</i>				
Description		1. Territorial scope. Impacts more than two cities in the metropolitan area.		
Metropolitan approach for infrastructure projects.	Characteristics		Yes	No
	<ol style="list-style-type: none"> 1. Territorial scope. Impacts more than two cities in the metropolitan area. 2. Economic efficiency. Generates economies of scale. 3. Financial capacity. Facilitates local investment because it promotes joint investment. 4. Technical Capacity. Facilitates management because the methods of personnel management and technological operation, services, materials and equipment are more efficient and effective at the supramunicipal level. 5. Social impact. Has a universal effect throughout the metropolitan population. 			
	Infrastructure Project Characteristics			
<ul style="list-style-type: none"> • Competitiveness: Invigorates the territory, is an asset of the metropolitan territory • Universal: Impact of the services is felt beyond the local scale • Differentiating: Is complementary to the goods and services at the local level with the service's speciality and focus. - Inclusive: accessibility for communities at different levels • Integrating: has the effect of linking up the territory • Generates urban centralities • Social cohesion: promotes participation and builds a symbolic image of the society to which they aspire 				

Framework of Action <i>Instruments and regulations applicable to project development and implementation</i>	
Metropolitan Scale Instruments <i>(Project-related instruments or regulations existing in the territory)</i>	Metropolitan Planning Instruments:
	Metropolitan Financing Instruments:
	Metropolitan-Scale Legal Framework:
	Metropolitan institutional framework or authority:
Local-Level Instruments <i>(Project-related instruments or regulations that exist in the cities within the metropolitan area)</i>	Planning tools that incorporate the project or a related goal:
	Local project-financing instruments:
	Legal framework relating to the project:
Constraints <i>(to the project's development and implementation on a metropolitan scale)</i>	Governance Legal Framework 1. 2. 3. Management Model 1. 2. 3.
	Planning 1. 2. 3.
	Financing 1. 2. 3.

2. Innovation

Goal: To transform projects by incorporating a metropolitan approach, and by making the development and implementation of the project viable through transformation of the constraints (identified in the Diagnosis Stage) on the instruments of the planning, financing and legal framework into requirements that will enable the project.

Activities:

1. Innovation in the project design	2. Innovation in the planning instruments	3. Innovation in the regulations	4. Innovation in the financing instruments
Redesign the project to incorporate characteristics of metropolitan-scale projects.	Transform the constraints into requirements that enable the metropolitan project.	Transform the constraints into requirements that enable the metropolitan project.	Transform the constraints into requirements that enable the metropolitan project.

The SCAMPER method, described previously in the “Metropolitan Innovation” methodology, will be used for the innovation process.

The word SCAMPER is an acronym formed by the initials of the following verbs:

Substitute

Combine

Adapt

Modify

Put to other uses

Eliminate

Rearrange

These are the key words used to ask the questions. The procedure is as follows:

Definition of the problem: The constraints on the project's development and implementation on a metropolitan scale were identified in Stage 1, Diagnosis. These constraints are the problems in respect of which the questions will be asked to elicit new ideas.

Asking questions: At this point, we ask questions using the action verbs included in the acronym SCAMPER, then suggest answers to those questions.

The answers ordered and grouped will embody new approaches to the problems that will allow concrete actions to be taken to improve and transform metropolitan public policies, programmes and projects.

Participatory Modality: Group

Inter-institutional and interdisciplinary groups will be organised to ensure that the innovative ideas for the metropolitan issue are worked on from different angles.

Participation material: Work Sheet

WORK SHEET
Innovation Stage

GROUP No. _____

PARTICIPANTS

INNOVATION: Mark with an X

Project Design	
Planning Instrument	
Financing Instrument	
Legal Framework	

CONSTRAINTS: List the constraints identified in the Diagnosis Stage for the topic you are innovating.

- 1.
- 2.
- 3.

ACTIVITY: Using the SCAMPER method, innovate with respect to the constraints identified as the main problems in the Diagnosis Stage, generating ideas as to what kind of project/planning instrument/financing instrument/regulation would make the development and implementation of the metropolitan project viable

3. Action

Goal: To obtain project proposals from the participants with a metropolitan approach and get them to identify actions with respect to planning, governance and financing in order to implement the ideas generated in Stage 2, Innovation, about transforming the constraints.

Activities:

1. Project Design with Metropolitan Approach.	2. Metropolitan Management Actions
Develop a conceptual framework for the project with a metropolitan approach.	Develop a Governance, Planning and Financing Actions Proposal that will enable and make viable the Development and Implementation of the Metropolitan Project.

Participatory Modality: Group

Work will continue within the same inter-institutional and interdisciplinary groups that have been formed for the previous stages.

Participation material:

- Work Sheet
- Orientation posters for metropolitan management issues and instruments

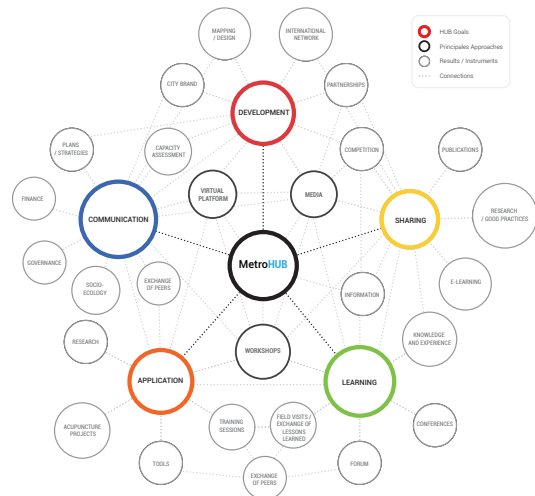
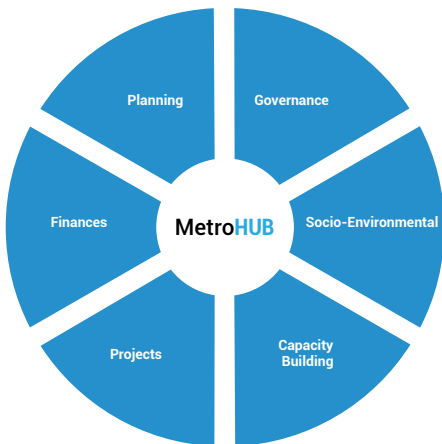
ACTIVITY 1: The participants will develop the project's theoretical and conceptual framework with a metropolitan approach, incorporating innovation into the design.

WORK SHEET		
ACTIVITY 1: Design of the Project with Metropolitan Approach		
Group No.: _____		
Metropolitan Project: _____		
PROJECT'S THEORETICAL AND CONCEPTUAL FRAMEWORK		
Metropolitan Issue	Metropolitan Project	Framework of Action
Problems	Description	Activities
Need	Goals	Budget
Justification	Results	Financing sources

ACTIVITY 2: The participants will identify concrete metropolitan management actions to implement the ideas generated in Stage 2, Innovation, to innovate on the constraints by filling out the following form:

<p style="text-align: center;">WORK SHEET ACTIVITY 2: Metropolitan Management Actions</p>		
<p>Group No.: _____</p> <p>Metropolitan Project: _____</p>		
<p style="text-align: center;">Innovation Idea (Ideas generated in Stage 2)</p>	<p style="text-align: center;">Metropolitan Management Action (MetroHUB Actions, Planning, Governance, Financing, Socio-Environmental Issues, Capacity Building)</p>	<p style="text-align: center;">Action to Implement the Innovation (Specify the action that will implement the innovative idea)</p>
Idea:		
Idea:		
Idea:		

MetroHUB's metropolitan management instruments and issues guidance posters will be used for this activity.



Socialisation of Workshop Results

With the three stages completed, three activities will be done to close out the workshop:

1. Each group will present the innovative ideas for the metropolitan project and the actions for implementing them.
2. A committee will be formed to present and promote the action proposals to the metropolitan authorities (metropolitan councils, boards or committees, depending on the scenario in the metropolitan areas).

Systematisation of the Workshop Results

Executive document on the workshop's conclusions, incorporating:

1. The results of each of the methodological stages
2. Suggestions for upcoming actions to be done.
3. Socialisation of the document



METROPOLITAN IMPACT OF TERRITORIAL PROJECTS

The following planning methodology was developed at the Interdisciplinary Centre for Development Studies (CIDER) of the Universidad de los Andes (Colombia). The methodology provides an ex-ante determination of the metropolitan impact that different territorial projects may have, and a tool for conducting an exercise for prioritisation of those projects. The methodology mixes qualitative and quantitative methods and consists of two phases: (i) qualitative identification of Metropolitan Common Affairs (i.e. the main phenomena affecting two or more municipalities within a metropolis), and (ii) quantitative prioritisation of projects according to the impact they have on the identified circumstances.

Stages



1

Identification and characterization of Metropolitan Common Affairs.

2

Prioritisation of projects based on the metropolitan impact.

Phase 1: Identification and characterization of Metropolitan Circumstances

By identifying MCs, we can prioritise those projects that have the greatest impact on the problems or amplify the phenomena of territorial interdependencies in urban agglomerations. This document proposes a methodological route for identifying and characterising MCs, consisting of three steps:

Step 1. Establish impact analysis categories based on territorial interdependency structures

A triangular diagram is created representing the three dimensions of territorial systems that generate various types of interdependencies (socio-economic, functional and biophysical), and the institutional dimension is established at the centre as it constitutes a linkage factor that facilitates, hinders or determines the quality of access to goods and services offered by the metropolis, which weighs heavily on the configuration and path of the other three dimensions.

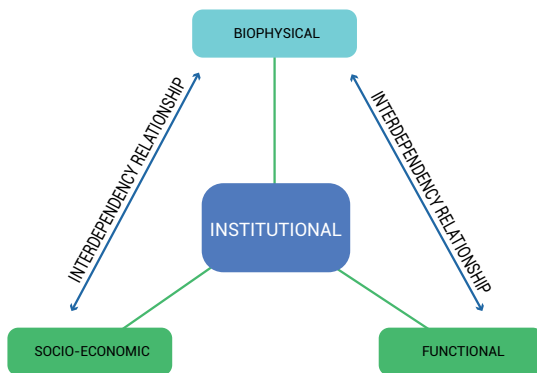


Figure 1 shows the proposed dimensions for the metropolitan impact analysis.

The following sections drill down into the nature and general features of the dimensions whereby supramunicipal interdependency relationships are generated, on which the MCs will be identified.

BIOPHYSICAL DIMENSION

This dimension addresses the conservation, preservation and sustainable use of natural resources, as well as the incorporation of directives for the prevention, reduction and control of threat and risk factors to support the physical development of the territory and land occupation. It refers to the natural base of the territory comprised by the geomorphology, existing ecosystems, weather, geology, hydrology, soils, biodiversity, protected areas, natural and socio-natural threats, as well as climate variability and scenarios of climate change.

SOCIO-ECONOMIC DIMENSION

This dimension refers to the economic and social dynamics that stem from relationships between the municipalities within a metropolitan area. Specifically, the economic perspective considers the importance of the territories' competitiveness, increased productivity in the local economy, the creation of added value and sustainable use of territorial resources, the development of networks among actors, and organisations that encourage innovations with an impact on local and metropolitan economic development. From a social perspective, it also includes phenomena related to poverty, social gaps, the housing deficit, inequality or segregation in the metropolis.

FUNCTIONAL DIMENSION

The functional dimension comprises all man-made infrastructure and utilities that provide a functional platform to carry out the different socio-economic activities in an appropriate and efficient way. This includes infrastructure related to the provision of public services, mobility and transport, and equipment and public space. From a functional perspective, mobility systems and their relationship to the effective use of public space and the different types of equipment are considered essential for proper implementation of the organisational model; so too are their correct linkage to the natural base and their interrelationship with the system of centralities. It is also crucial for the management of urban densities and uses to be consistent with the possibilities offered by the mobility system.

Step 2. Identify the Metropolitan Common Affairs according to defined analysis categories.

Metropolitan Common Affairs are the main economic, social, cultural, political and institutional phenomena affecting a metropolitan area. While there is no single definition of the notion of MCs, it is possible to distinguish traits that characterise them and demonstrate their nature as a first step in conducting metropolitan planning exercises. In that regard, there are four key aspects to identifying an MC.

Firstly, MCs are phenomena that refer to relationships of interdependency between various municipalities in a metropolitan area. For a phenomenon to be considered a "Metropolitan Circumstance", it has to affect or involve two or more municipalities. The phenomenon of Metropolitan Common Affairs is therefore analysed from the approach of supramunicipal interdependencies and relationships.

Secondly, these relations of supramunicipal or supralocal interdependency take place within the framework of the dimensions and structures of the metropolitan territory. The metropolitan territory is multi-dimensional, i.e. it has a range of dimensions and structures, and the MCs occur within the framework of the relationships and transformations of these multiple dimensions.

Thirdly, the identification of MCs requires a prior diagnosis of the current state and the transformations of the territory's structures and dimensions. In other words, identifying an MC is not a diagnostic process; rather it begins with a diagnosis to be able to characterise the primary metropolitan phenomena and the desirable goals of managing these phenomena in the future.

Fourthly, the relationships of interdependency that characterise the MCs give rise to conflicts and opportunities that need to be managed and planned at the metropolitan level. This management can be done by developing projects and coordination actions that have an impact on the metropolitan territory.

This stage ends with a list of MCs identified and characterised for each dimension. The characterisation must include at least two elements: (i) the explanation of why the identified phenomenon is an MC; and (ii) the definition of a desirable future management objective for each MC derived from analysis of the revised diagnostic documents.

.....
15 By way of example, interdependence relationships in the functional dimension can refer to the increase in the level of motorisation, the average number of daily trips made for any reason between municipalities, or the impact of drinking water supply services and sanitary landfills. With regard to interdependence relations in the economic dimension, several metropolitan phenomena can be identified, such as: a) labour commutation and the configuration of city systems; b) economic exchanges in goods and services between municipalities (the provision of agricultural and industrial goods and tradable

Step 3. Build a criteria-based system relating to the MCs identified to determine the metropolitan impact.

In the last step of this first phase of the methodology, project prioritisation criteria should be raised as questions. These questions have to be asked so that, when applied to the projects, we will be able to anticipate whether the project will positively affect the desirable management goals identified for each MC.

We propose setting two types of criteria: (i) General Criteria (1G), which are drafted as factoring-out questions with YES/NO answers only, and which, if answered in the affirmative, trigger a second set of questions; (ii) Specific Criteria (2G), which are drafted as questions that address the 1G criteria and which may have multiple-choice answers, establishing weights or differentiated scores to each of the possible answer options.

Phase 2: Prioritisation of projects based on the metropolitan impact

As we have already mentioned, this Metropolitan Management and Planning Methodology combines qualitative and quantitative methods. Based on the qualitative inputs collected in phase 1, phase 2 employs a quantitative analysis, known as Discrete Multi-Criteria Analysis. The Analytic Hierarchy Process (AHP) technique is used to do this. It allows complex structures to be broken down by identifying the links between the parts and proposing a rational solution that results in numerical values that can be used to determine which criteria (variables) have the highest priority and thus organise them hierarchically. In this case, it enables us to decide which projects are higher priority because of the positive impact they will have on the identified MCs.

services); c) social and spatial gaps; d) the effects produced by the overflow of agglomeration economies on ecosystems; among others. The relationships of interdependence between municipalities related to the biophysical dimension refer to environmental and ecosystem services and how they relate to the other dimensions or structures of development.

IMPLEMENTATION OF THE PRIORITISATION METHOD

To implement this technique, the Methodological Multi-Criteria Assessment Handbook for Programmes and Projects published by the Latin American and Caribbean Institute for Economic and Social Planning (ILPES), belonging to the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) (Pacheco and Contreras, 2008) is used as reference. In order to make this application consistent with the determination of metropolitan impact, certain variations are made to this methodology. They will be explained in the following sections.

The method's implementation process is based on three principles: (i) hierarchy building; (ii) priority setting; and (iii) logical consistency.

PRINCIPLE 1: HIERARCHY BUILDING

Problem-tree and goal-tree techniques are used to define the hierarchies. The levels of analysis are broken down into the four dimensions defined for the impact analysis (functional, bio-physical, socio-economic and institutional) and the Metropolitan Common Affairs identified, similar to the method used in decision trees. The base of the tree is formed by the dimensions, and it starts branching out into MCs, then general criteria and specific criteria, until it reaches the level of alternatives, using linear combinations in the same way that probability analysis does.

The hierarchical level "0" starts from the dimensions, followed by level "1", where the Metropolitan Common Affairs are located, with other relevant aspects on the subsequent levels (Figure 2). To prioritise metropolitan projects, factoring-out questions are asked with binomial answers only ("yes" or "no") on several of the levels and, depending on the depth, multiple choices are offered with differential scoring values.

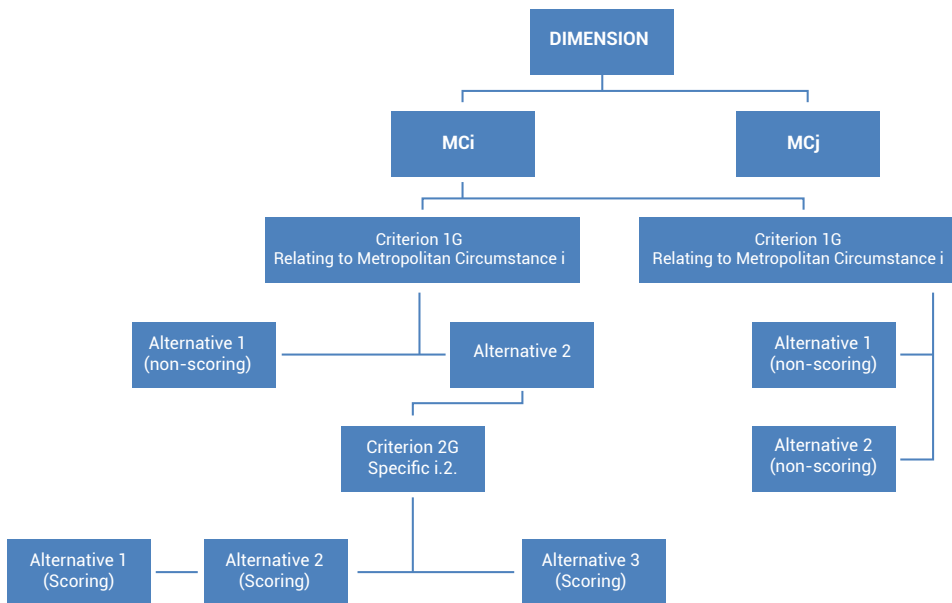


Figure 2. Tree to build hierarchies for prioritisation. ECLAC-based authors (2008).

PRINCIPLE 2: PRIORITY SETTING

The methodology indicates that priorities must be established with the group of criteria based on a pairwise matrix with ratings given by the user, using the Saaty scale, which is a tool designed for establishing the importance or preference of criteria or alternatives in the pairwise comparison matrix (ECLAC, 2008) as shown in Figure 3. The scale must match at the level of the Metropolitan Circumstances, as these are the phenomena that are to be addressed through the projects prioritised by the criteria formulated.

To do this, a pairwise matrix needs to be constructed by crossing the MCs and establishing a relationship of interdependency between them, since the projects that will be evaluated by the tool may respond to one or more MCs, in which case, what should take precedence are the synergies and interrelationships proposed by the project to address the problems affecting the metropolis and fulfil the strategies defined in its management instruments.

Intensity	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Moderate importance	Experience and judgement slightly favour one activity over another
5	Strong importance	Experience and judgement strongly favour one activity over another
7	Very strong or demonstrated importance	One activity is favoured very strongly over another; its dominance was demonstrated in practice
9	Extreme	The evidence favouring one activity over another is completely and utterly patent
2,4,6,8	Intermediate values	When the parties need to compromise between two adjacent values.
Reciprocal	$a_{ij}=1/a_{ji}$	Hypothesis of the method.

Figure 3. Saaty's Scale. Taken from Saaty 1991 in ECLAC (2008)

Accordingly, the prioritisation of projects responds to a comprehensive vision of metropolitan management rather than a sectoral vision, and projects scoring a higher impact percentage will be those formulated with a multi-dimensional approach. Following the intensity conventions established by Saaty, the standard question, "How important is the relationship of HM-i to Hm-j?" is defined to set the weighting of the prioritisation, anticipating as a result a bi-directional matrix corresponding to the number of MCs by the same number of MCs. (Figure 4)

After defining the pairwise matrix, an importance rating is given to each of the relationships between the MCs, taking into account Saaty's intensity definitions: 1 (of equal importance); 3 (moderate importance); 5 (strong importance); 7 (very strong or demonstrable); and 9 (extreme importance).

The use of intermediate rating values (2, 4, 6 and 8) requires the parties to reach a compromise between two adjacent values, and in this case, that signifies a consensus among the actors in metropolitan management and development. It is therefore recommended in the first instance to use only odd-numbered values by forming a group of experts, and, if the nuances of the rating need expanding, to use the even-numbered values through participatory workshops where a consensus will be reached with respect to the weights of the interdependencies.

By giving the ratings along the rows over the main diagonal of the matrix (the "1"s), the positions below the main diagonal (calculated as the inverse of their transposed position) are mostly decimals of less than 1. At first glance, the summations of the columns may seem disparate, yet after conducting the standardisation process, it proves not to be the case.

	4D Metropolis	Metropolitan sprawl	Metropolitan mobility	Municipal borders and boundaries	Provision of public services	Peri-urban green system	Water supply
4D Metropolis							
Metropolitan sprawl							
Metropolitan mobility							
Municipal borders and boundaries							
Provision of public services							
Peri-urban green system							
Water supply							
Urban forest network							
Housing deficit							
Metropolitan economic specialisation							
Socio-economic gaps							
Risks of disasters and climate change							
Lack of metropolitan-scale financial resources							
Metropolitan coordination							
Participation and active citizenship							
Strengthening metropolitan identity and promoting territorial identities of the centralities							

Consequently, with the relationship of interdependency between the MCs established for the application of Saaty's Scale, a combinatorial grouping method is used (Herrera Moreno, 2000) to standardise the matrix ratings and identify the final prioritisation value. This method relates values according to group-group affinity or group-entity affinity. The values can be calculated successively from the pairwise matrix, using the simple averaging form or method.

In this method, affinity is defined by the simple average of the unweighted pairs of entities as follows:

$$D_{ij} = \frac{((X_{ij}/\Sigma X_j) + (X_{ij}/\Sigma X_i))}{2}$$

The pairwise matrix is used to calculate the weights to reach the priority vector that is the average of each row in the standardised matrix, resulting in a vector measuring 16x1. The priority vector is a column matrix containing the relative importance of the MCs. The values contained in it represent the weight of each criterion or sub-criterion in the total percentage of the prioritisation of the metropolitan impact. All grouping or agglomerative methods can be complemented with analyses of spatial relationships—even clustering. It is therefore suggested that these types of methods continue to be used to formulate projects so that in the future they can relate the information georeferenced with project tracking and control indicators through technological tools such as dashboards.

PRIORITISATION TOOL:

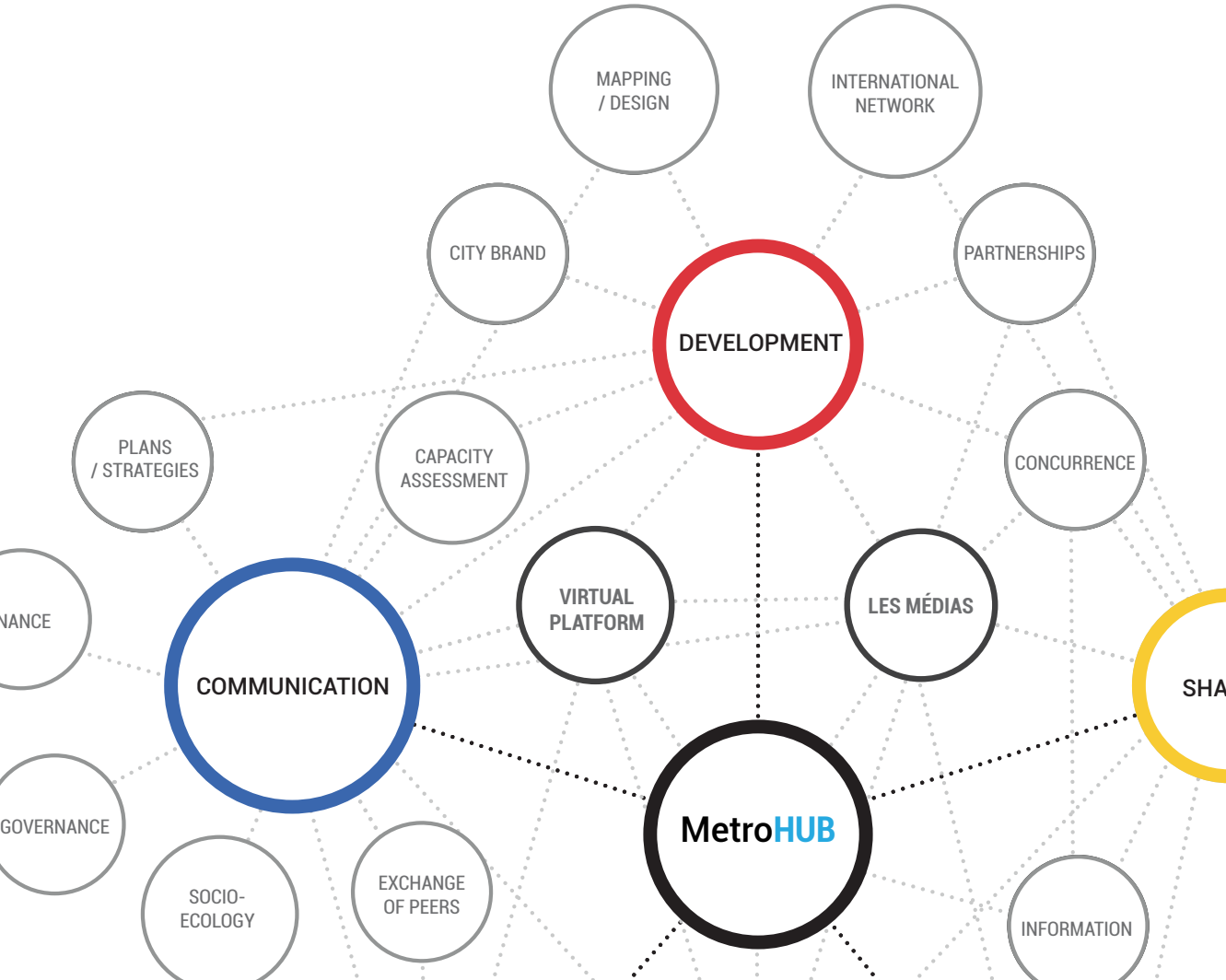
The final step in the application of the prioritisation methodology is the construction of a digital tool that uses a graphical interface to apply the formulated criteria and their respective weights to the various projects submitted to the Project Bank or its superseding authority, in the respective metropolitan area.

The tool must be designed from a combination of criteria, i.e. the user will not select the dimension

to be evaluated. This is crucial because it avoids the fundamental bias of giving different weights to the dimensions being evaluated. It is important to mention that indicators should be included from different sources of information found from the readings of the official instruments and documents of the metropolitan area where the methodology is applied. This is because the Metropolitan Circumstance is more relevant for this methodology than the indicator, hence it is the indicator that must be adapted to the MC.



TRAINING



METROHUB WORKSHOPS¹⁶

The methodology of this workshop is based on MetroHUB's conceptualisation of "learning, sharing, developing, applying and communicating", and its objective is to improve the capacity of key players in metropolitan development to enable them to have a metropolitan vision of the territory and address the challenges facing the metropolitan areas.

Components of the workshop

Learning

This component will be conducted with an academic section on the following topics with a metropolitan focus:

Main Topics: Planning, Governance, Financing, Socio-Environmental Issues

Specific Topics: sectoral topics, depending on each workshop's needs at the request of the partner or because of the predominant territorial dynamics in the metropolitan area where the workshop is held.

Developing and Applying

This component will be carried out with a section on proposals and projects with metropolitan vision, where participants will develop a programme and project proposal with a metropolitan vision related to the role they perform in the metropolis.

Sharing

This component will have two sections:

Dialogue Section: group work in which the participants present case studies related to the topics presented in the academic section.

Peer-to-Peer Section: sectoral technical visits to learn about metropolitan challenges through field visits and dialogue with the officials facing the challenges.

Communicating

This component will consist of a section on strategy for communication and dissemination of the metropolitan project or programme developed by the participant, enabling them to relate their metropolitan vision to other actors in the territory in order to generate collective intelligence on metropolitan matters.

16, 17 MetroHub-Supporting Metropolitan Development: <http://urbanpolicyplatform.org/metrohub/#>

METROHUB – PEER-TO-PEER METROPOLITAN ALLIANCE ROUND TABLES¹⁷

This learning format is based on MetroHUB's Peer-to-Peer Methodology, designed to promote the exchange of lessons learned, via international connections with metropolitan peers, and to create one-to-one partnerships, capitalising on experience in tackling metropolitan challenges.

This learning format is based on MetroHUB's Peer-to-Peer Methodology, designed to promote the exchange of lessons learned, via international connections with metropolitan peers, and to create one-to-one partnerships, capitalising on experience in tackling metropolitan challenges.

The aim of the round table is to make efforts at peer-to-peer learning more efficient, in that it seeks to concentrate a large number of metropolitan

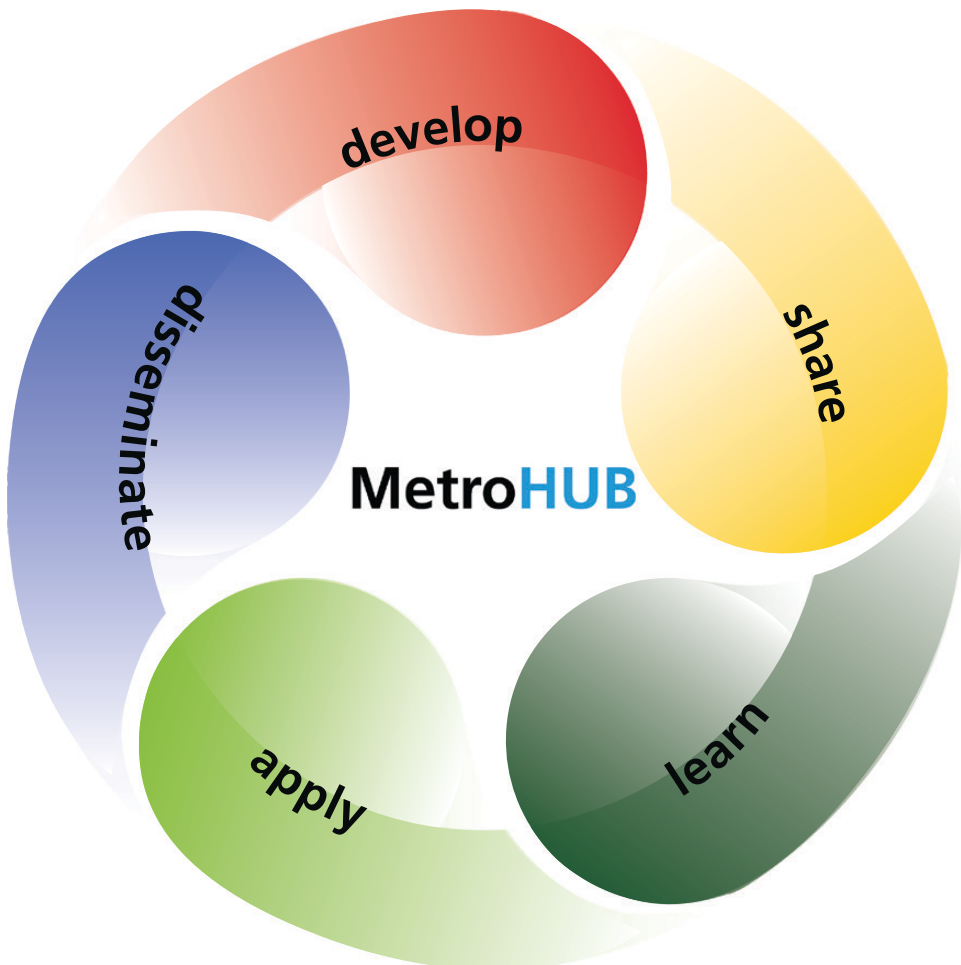
experiences at the same place and time, and participants will find an enormous number of opportunities for dialogue, advice and alliances.

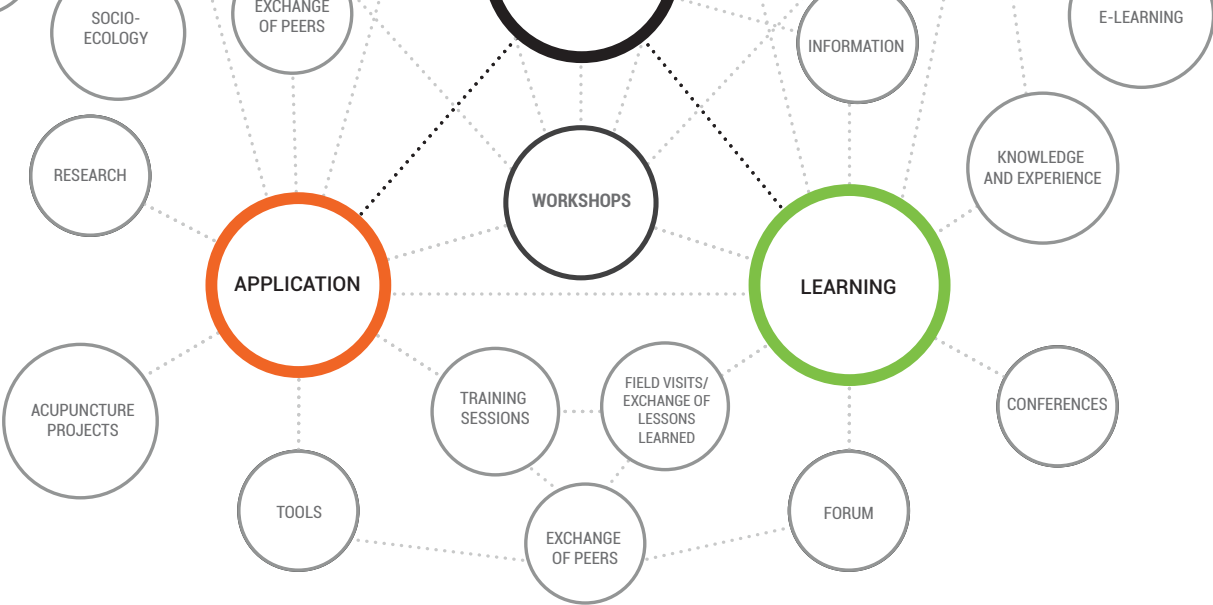
The format is focused on round tables at the international level, but it is also applicable to national interests.

16, 17 MetroHub-Supporting Metropolitan Development: <http://urbanpolicyplatform.org/metrohub/#>

It will require

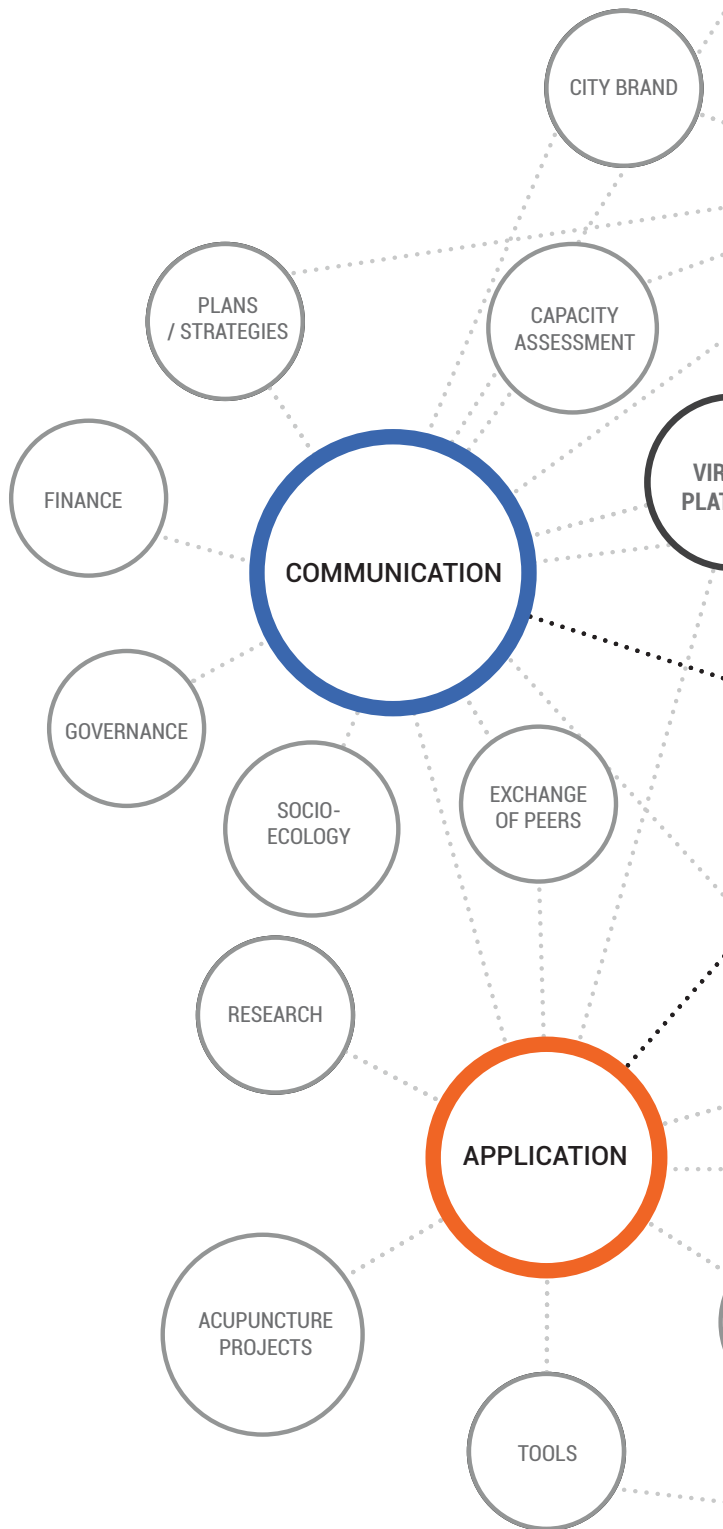
1. Identification of good metropolitan practices
2. Identification of metropolitan areas or urban agglomerations interested in strengthening their metropolitan management capabilities.
3. Development of a brochure of good practices
4. Development of a platform for scheduling appointments
5. Strategy for documenting results of the round table
6. Call for participation.
7. Development of peer-to-peer agendas among the participants
8. Development of the round table
9. Report on results of the round table
10. Follow-up on the alliances generated.







BIBLIOGRAPHY



Agenda 2030 - Sustainable Development Goals. <https://www.un.org/sustainabledevelopment/>

Cartografía Social – Juan Herrera. Net, <https://juanherrera.files.wordpress.com/2008/01/cartografia-social.pdf>

ECLAC (2015) Manuales de la Cepal – La planificación participativa para lograr un cambio estructural con igualdad. https://repositorio.cepal.org/bitstream/handle/11362/39055/7/S1501278_es.pdf

CIPPEC (2016), Gobernanza Metropolitana en América Latina y el Caribe, <https://www.cippec.org/wp-content/uploads/2017/03/1069.pdf>

Montreal Declaration on Metropolitan Areas – 2015. http://cmm.qc.ca/fileadmin/user_upload/documents/20151007_habitat_declarationMontreal-es.pdf

Emilio and Angela Giglia. (2008). Las reglas del desorden: habitar la metrópoli. UAM-AZC, Siglo XXI. Mexico. – zonas de bordes

<https://leerlaciudadblog.files.wordpress.com/2016/05/duhau-y-giglia-las-reglas-del-deorden-habitar-la-metrc3b3poli.pdf>

Gema González Romero – Universidad de Sevilla (2006) – Innovación Territorial y Políticas Publicas
file:///C:/Users/Usuario/Downloads/Dialnet-InnovacionTerritorialYPolíticasPublicas-2219459.pdf

HABEGGER, Sabina and MANCILA, Iulia (2005): La cartografía social como estrategia para diagnosticar nuestro territorio. Publication from the Freire Seminar. Universidad de Málaga . http://acervo.paulofreire.org:8080/jspui/bitstream/7891/4034/1/FPF_PTPF_01_0693.pdf

Hernández A., Montero S., Forero R., Ávila J. and Molina C. (2019). De los Hechos a la Planeación Metropolitana: Una metodología para determinar el impacto metropolitano de proyectos territoriales. CIDER. Universidad de los Andes. Bogotá. https://cider.uniandes.edu.co/Paginas/publicaciones/Documentos_trabajo.aspx

J. Lerner (2005) Acupuntura Urbana – academia.edu. https://scholar.google.com.co/scholar?q=acupuntura+urbana&hl=es&as_sdt=0&as_vis=1&oi=scholart

López-Ghio, Ramiro; Ramírez, Juan Mauricio; Rojas, Fernando; Salazar Echavarría, Carlos; Bateman, Alfredo - BID- Fedesarrollo (2018): Interdependencia municipal en regiones metropolitanas

<https://publications.iadb.org/es/interdependencia-municipal-en-regiones-metropolitanas-el-caso-de-la-sabana-de-bogota>

Luis Sánchez Ayala (2015). De territorios, límites, bordes y fronteras: una conceptualización para abordar conflictos sociales. www.revistas.uniandes.edu.co

Método SCAMPER, Como generar ideas. www.innovacion.cr/sites/default/files/article/adjuntos/herramientas_practicas_para_innovacion_1.0_scamper_1.pdf

MetroHUB – Supporting Metropolitan Development - <http://urbanpolicyplatform.org/metrohub/#>

Nueva Agenda Urbana. <http://habitat3.org/wp-content/uploads/NUA-Spanish.pdf>

UN-Habitat Strategic Plan 2020-2023. www.unhabitat.org

Regeneración Urbana Integrada: proyectos de acupuntura en Medellín.

https://scholar.google.com.co/scholar?q=acupuntura+urbana&hl=es&as_sdt=0&as_vis=1&oi=scholart

RIMISP – Centro Latinoamericano para el Desarrollo Rural (2007) – Desafíos Institucionales para la Articulación de Políticas Públicas

https://rimisp.org/wp-content/files_mf/1516370794DT229DesafiosInstitucionalesparalaArticulaciondePPPP.pdf



METHODOLOGIES

METROPOLITAN MANAGEMENT AND PLANNING

HOW TO IMPROVE UNDERSTANDING OF THE METROPOLISATION PHENOMENON TO CAPITALISE ON ITS OPPORTUNITIES?

UN-Habitat, through its MetroHUB initiative, presents this document of "Metropolitan Management and Planning Methodologies" in order to enhance the capacities and competencies of local governments and actors experiencing the metropolitan phenomenon.

The 21st century is often referred to as the "metropolitan century". The number of metropolitan areas with more than 500,000 people is increasing, and ninety percent of urban growth will occur in less developed regions, at a rapid pace and in situations where capacity and resources are more limited. They pose a challenge to those responsible for territorial management and development to innovate the way cities are managed, prioritising and optimising resources and efforts based on principles of integration, collaboration and territorial equity.

MetroHUB methodologies give metropolitan actors a greater understanding of the territorial dynamics of the metropolis. They are experimental methods that guide them to suggest ideas for better planning, governance, financing and management of metropolitan areas, generating skills that prompt them to formulate strategies of territorial development consistent with the realities of the metropolises and regions, based on the principle of integration of territorial management and leveraging of the positive aspects of urbanisation.

MetroHUB methodologies address topics such as:

- Intra-metropolitan Border Planning
- Governance of Metropolitan Interdependencies
- Participatory Metropolitan Planning
- Metropolitan Vision and Management
- Metropolitan Innovation
- Dialogue with Metropolitan Peers
- Metropolitan Innovation Projects
- Metropolitan Impact of Territorial Projects

In addition, this document contains methodologies for training and for exchanging experiences to examine metropolitan phenomena and metropolitan territorial management more closely.

Generating metropolitan knowledge from an understanding of urban phenomena that exceed local limitations is undoubtedly an optimal channel for taking advantage of the positive aspects of urbanisation and mitigating its negative externalities through decision-making and citizen participation with knowledge and innovative proposals for a sustainable, equitable and competitive metropolis.

MetroHUB

For more information contact:

United Nations Human Settlements Programme (UN-Habitat)

Urban Practices Branch, Global Solutions Division

UN-Habitat Policy, Legislation and Governance Section (PLGS)

unhabitat-upb-plgs@un.org

www.unhabitat.org