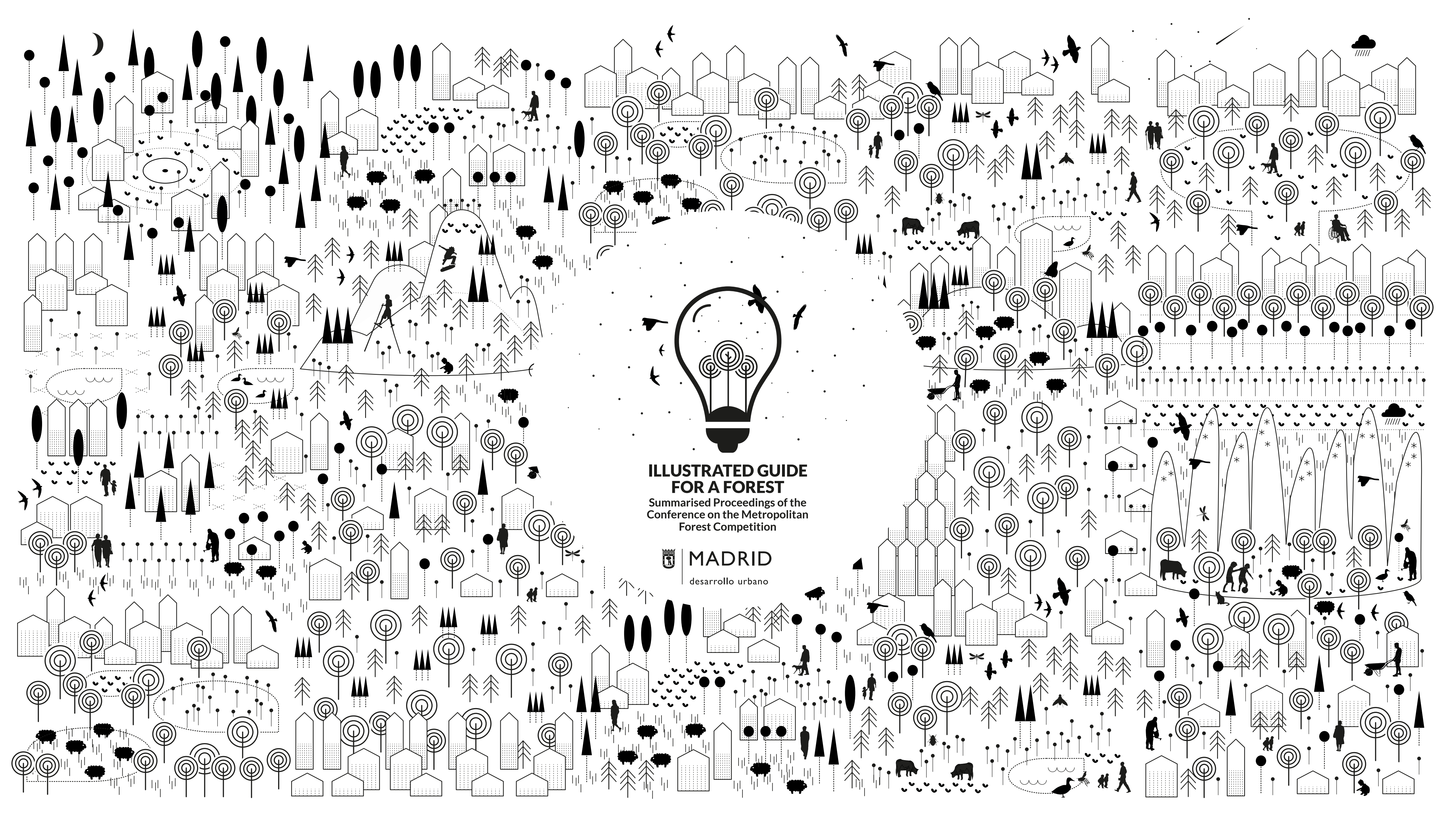


**ILLUSTRATED GUIDE
FOR A FOREST**
Summarised Proceedings of the
Conference on the Metropolitan
Forest Competition

 **MADRID**
desarrollo urbano





ILLUSTRATED GUIDE FOR A FOREST Summarised Proceedings of the Conference on the Metropolitan Forest Competition

The 13 and 14 July 2020 were the dates for the “**Conference on the METROPOLITAN FOREST Competition: climate, territory, and society**”. Its purpose was not simply to present and report on the competition, but to collaboratively build the concept of a forest from which to visibilise the environmental, social, and economic benefits it can offer the city, with all the potential of intervening in a landscape in terms of identity, ecology, health, or the economy.

The **Metropolitan Forest** is one of a number of varied strategies the **City Council of Madrid** is implementing in order to address the climate crisis. It is a project that will give shape to a new green infrastructure on a municipal level, a forest beltway encircling the city of Madrid, bolstering the ecological and territorial restoration of degraded areas and the environmental improvement of the city on the whole.

The conference took place with the clear intention of widening the thoughts around the Forest and reaching an agreement on the set of guiding criteria for the competition. Seventeen speakers from a wide range of disciplines took part in the conference, including council specialists, architects, landscape designers, engineers,

urban planners, nurses, doctors, or artists. The perspectives put forward by each speaker have been distilled and captured in this guide, which can be used beyond the competition as a manual to rethink the relationships between the city of Madrid and its green infrastructure.

The participants were also able to give width and depth to the debate in real time, collaborating in virtual workshops, identifying new criteria and recommendations, also included in this guide.

The Metropolitan Forest will be a key legacy the city can leave future generations, one of the last opportunities to reach a city in balance with natural processes and able to face climate, environmental, social, and economic challenges.

The Metropolitan Forest, a project supported by the **Deep Demonstration Healthy and Clean Cities programme, part of the EIT Climate-KIC**, aims at transforming Madrid and making it climate neutral by 2030.

Supported by



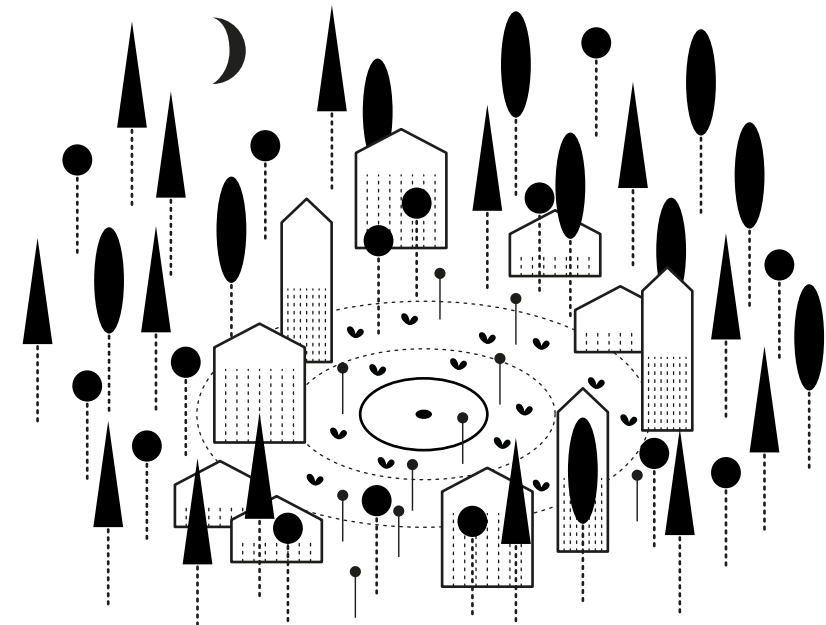


• 01 •

Working in multidisciplinary teams that generate holistic “big-picture” visions, broad enough to think about green infrastructures

In order to meet the aims of urban agendas, the city of Madrid must implement a mature green infrastructure with a system of sustainable spaces, developed with innovative design and management criteria, offering a wide range of ecosystematic services. The development of a multiscalar and interconnected system able to maximise environmental and social services must involve and engage multiple perspectives and be conceived within multidisciplinary work teams.

• Silvia Villacañas - City Council of Madrid •



• 02 •

Considering and being aware of the historical dimension in the design; the learnings and failures of the past

The creation of a green belt for Madrid has been a constant aim over the last century of the city's urban planning. The Metropolitan Forest is the last change for the city to consolidate this green ring, integrated and articulated with the existing city, able to improve its environmental behaviour and contributing to the increase of biodiversity. The city needs to consolidate a system of free outdoor spaces that are able to connect the citizens with their territory and nature.

• Juan Manuel Fernández - City Council of Madrid •

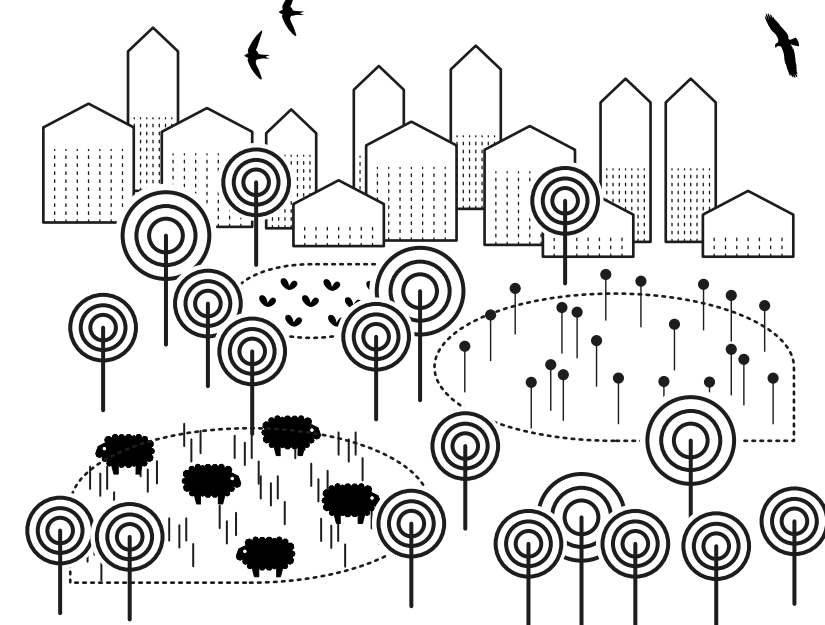


• 03 •

Fostering biodiversity in order to improve the resilience of cities in the face of climate crisis

The Metropolitan Forest must play a fundamental role in the improvement of the city's ability to resist climate change. Towards this adaptation, it is necessary to increase urban biodiversity by recreating diverse habitats that can help establish multiple interactions among the flora and fauna that inhabit them. These habitats must work as self-sufficient and resistant ecosystems where ecological succession processes are imitated to favour the already present fauna.

• Luis Martínez - SEO Birdlife •



• 04 •

Developing urban biodiversity by means of environmental and socioeconomic solutions

In order to achieve a diversity of habitats, it is important to pair environmental aims with the search for social and economic benefits, such as the promotion of green jobs. This urban biodiversity is achieved through a multiplicity of solutions, combining the establishing of a dense forest with other open spaces, agroforestry, and agricultural areas, etc. We need the Metropolitan Forest to contribute towards making Madrid more inhabitable, kinder, and healthier.

• Rafael Ruiz López de la Cova - Castilla-La Mancha Natural Parks •



• 05 •

Understanding green (and blue) infrastructure as an interconnected functional network within a walkable city, a city of proximity

The Metropolitan Forest is an opportunity to give shape to a city of proximity with nature as an integral part. A forest that favours spaces of cohabitation and promotes active citizens, one that works as a network of connected spaces where exchange can happen between a range of areas, that generates different ecosystem services depending on its features and location (for example, cultural services will be crucial in the more anthropised areas, as regulation systems will be in intermediate peri-urban systems).

• José Fariña Tojo - UPM •

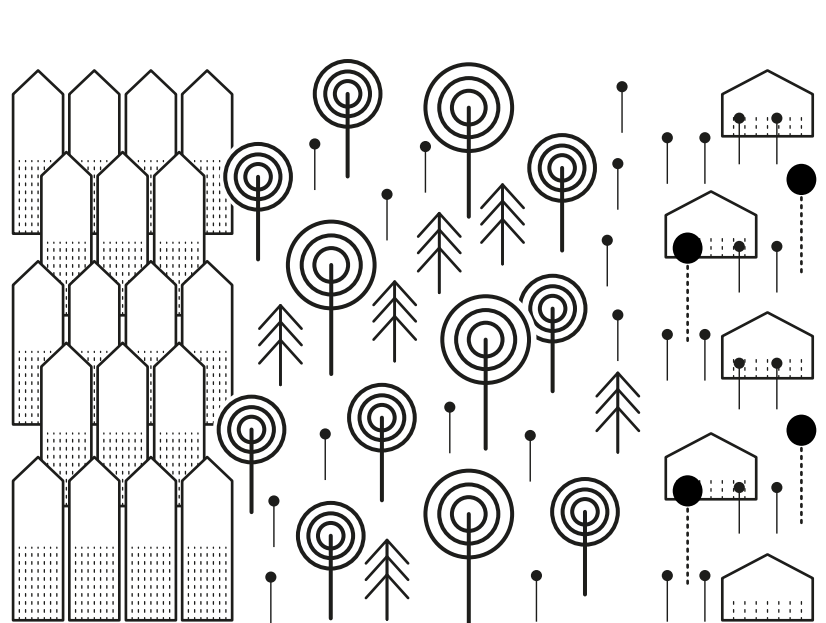


• 06 •

Acknowledge that there are no healthy people without a healthy planet

It is important to be aware that what is happening to urban dwellers' health at the moment is largely what is happening to the health of the planet. Healthy ecosystems are able to reduce the environmental risks of zoonosis and infection in humans thanks to the protective role biodiversity offers. For an ecosystem to be healthy it must be connected, which is why the Metropolitan Forest must establish links between the pre-existing green areas and improve the connection with the parks inside the city of Madrid, where millions live.

• Fernando Valladares - CSIC •

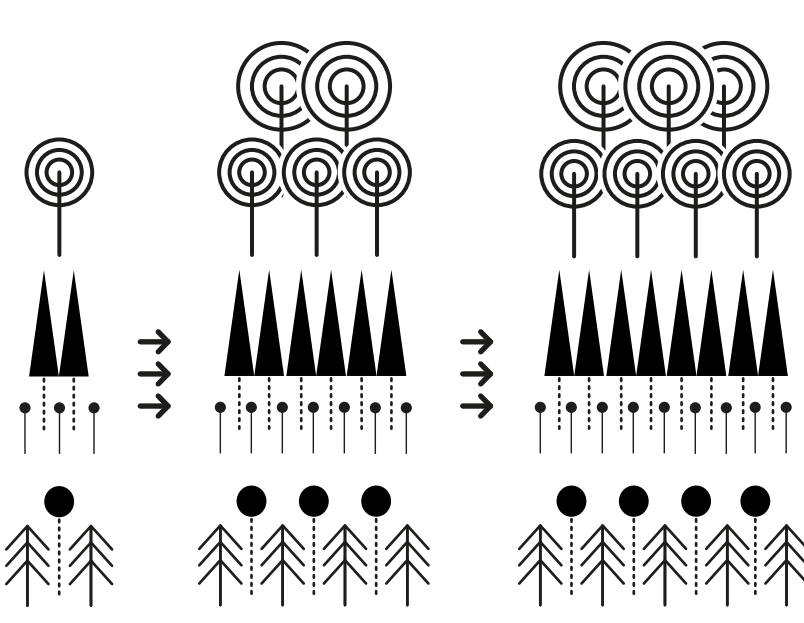


• 07 •

Designing for the prevention and mitigation of the vulnerabilities and social inequalities that affect wellbeing

The quality of the space we live or work in has an impact on our health and wellbeing. When thinking about the Metropolitan Forest, it is critical to remember that health inequalities are linked to social factors, and that they are unfair and avoidable. The Metropolitan Forest has the potential to be seen as a counterweight in the public space to these inequalities in the private sphere, and the use of inclusive approaches will avoid excluding the most vulnerable members of the population.

• Pilar Serrano Gallardo - UAM •



• 08 •

The forest as a space of collaboration between multiple actors in order to achieve climate neutrality in ten years

In the case of the Metropolitan Forest, one of its principles of innovation is the design process itself. A development process that encourages learning by doing – based on knowledge of the city of Madrid and adapting according to the progress – will make it possible to identify the leverage points that can activate a systemic transformation. This is the reason the Metropolitan Forest must be understood as a space of collaboration in which to establish partnerships between the multiple stakeholders that are needed in order to undertake the challenge of decarbonising the city.

• Juan Azcárate - Ayuntamiento de Madrid •



• 09 •

The forest as a place of infinite possibilities, with the capacity to transform the city and its inhabitants

The Metropolitan Forest should be an invitation for us to imagine the forest differently, as children do when playing with rocks and sticks, as a place of endless possibilities, as a space of freedom that cannot be controlled, as a transformative space where we ourselves become unpredictable elements. The Metropolitan Forest must also become a place of melding and blending where the boundary between the city and the forest is overcome, giving way to both a naturalised city and an urbanised nature.

• Alberto Nanclares - Basurama •

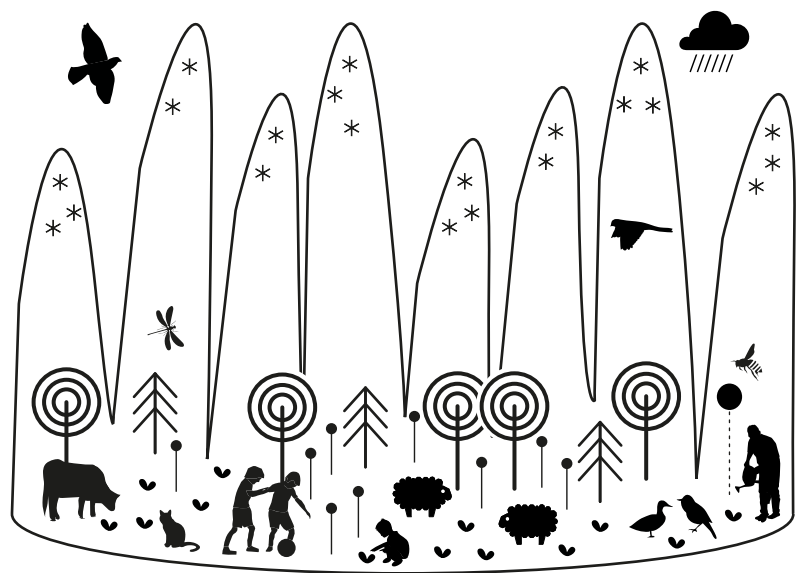


• 10 •

Thinking about Madrid's inhabitants as cosmopolitan gardeners in order to slowly build an urban forest

When we devise emerging, community gardens, the first task is to explore what is already there with the people who live in these places, using shared cartographies. These vegetation maps are a lot more than just maps, as they bring together historical and scientific knowledge with sensations and emotions, revealing invisible relations and giving name to theoretical ecotopes. The Metropolitan Forest is a reproductive space, perhaps it already exists and is right there, latent and spread across the city. It is only a matter of time before it germinates and sprouts.

• Nomad Garden •

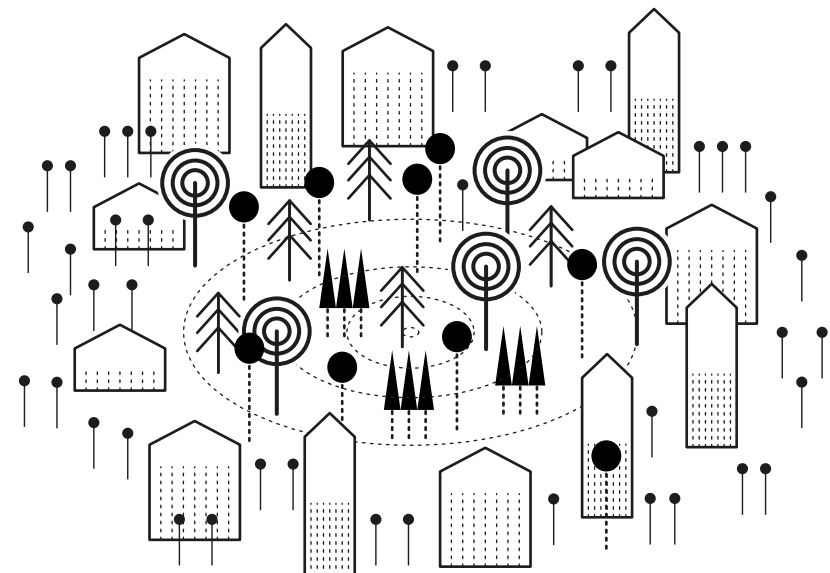


• 11 •

The forest as a laboratory of futures to trial a multispecies city

In recent decades, the arts and humanities have proposed new imaginaries around our species and how we related with other species. The Metropolitan Forest is a chance to take inspiration from contemporary artistic practices based on changing the way we pose questions, challenging human and nonhuman agency, prioritising logics of care, or designing hybrid devices where technology, aesthetics, and humour come together in a call for our empathy.

• Amanda Masha Caminals - IMNA. Matadero Madrid •

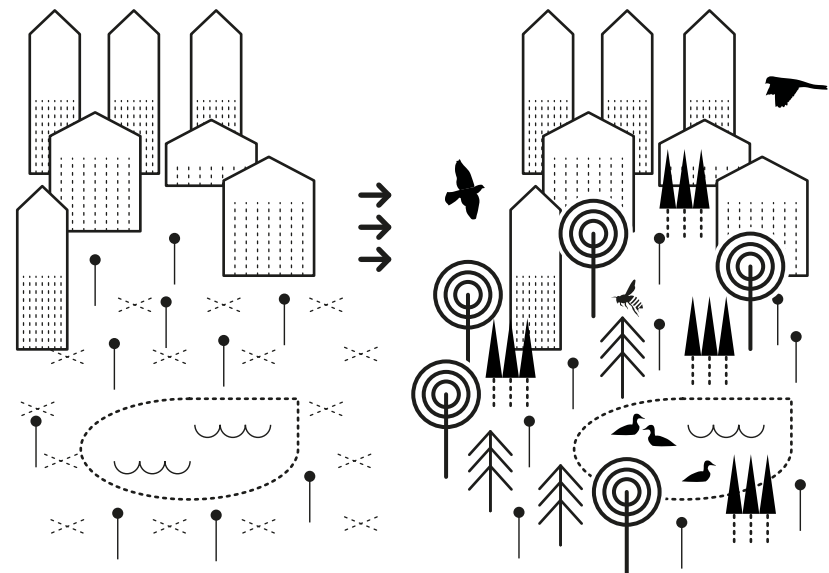


• 12 •

Thinking about proximity and accessibility in terms of equity with regards to an interconnected network of green spaces

The Metropolitan Forest provides a chance to react to the differences in health and wellbeing that stem from social inequalities. These differences are hidden and, although they can be revealed in graphs and maps, they can represent up to a nine-year difference in people's life expectancy from one area of the city to another. When designing the Metropolitan Forest it is necessary to create equitable maps that guarantee that all of Madrid's inhabitants have the same conditions of proximity and accessibility with respect to public space and quality green areas.

• Javier Segura - City Council of Madrid •

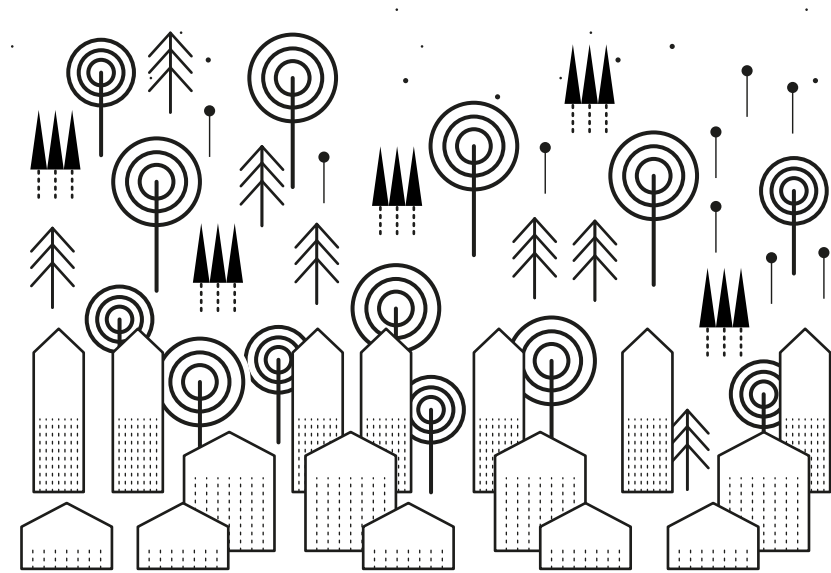


• 13 •

The forest as a patchwork of diverse landscapes with the capacity to regenerate the degraded ecosystems of the city

The limits of the planet have been surpassed, causing serious changes, damaged ecosystems, and a global, systemic crisis. In order to reverse the situation, the biophysical cycles in the Metropolitan Forest have to be redefined in terms of resilience, diversity, and social justice. It is crucial to apply principles that stem from ecological regeneration practices and to encourage a variety of landscapes that are able to holistically self-regenerate. This is the only way of generating healthy, complex, and resilient ecosystems that are able to offer ecosystemic benefits to the whole of society.

• Miriam García - Landlab •

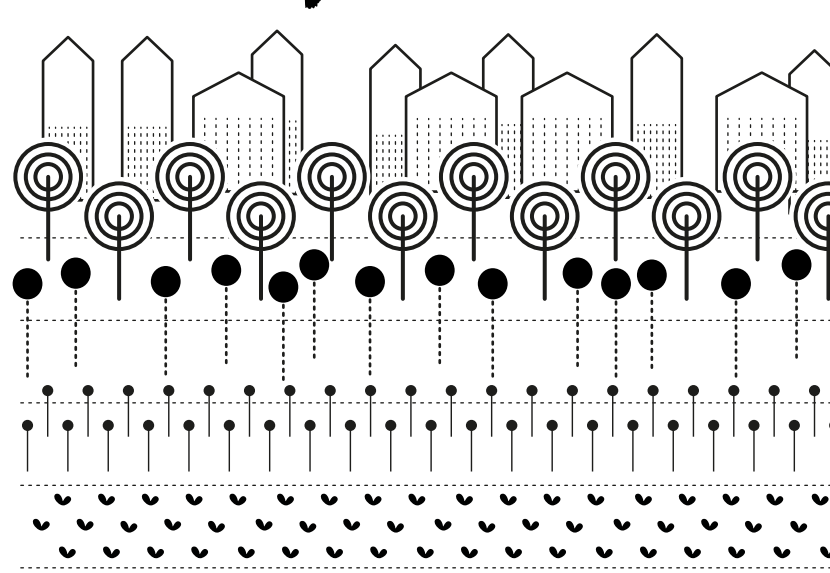


• 14 •

The capacity of an urban forest as a space that generates comfort and happiness, with the potential to contribute towards a better society

The current model of urban development fosters an excessive concentration of people in urban environments, with serious consequences for people's health and important economic impacts. An urban forestry where the trees are seen as the main transformative element has the capacity to dampen these impacts thanks to the introduction of nature and its laws into the city. Large scale trees are those which generate the largest benefits for society.

• Gerard Passola - Doctor árbol •



• 15 •

Understanding the city from an urban metabolism perspective, where the forest is conceived for food production and the destination of bio-waste

The Metropolitan Forest must be understood from an urban metabolism perspective, as part of a system of flows and exchange. The forest can be a source of food and the recipient of bio-waste from the city, being able to transform this waste into compost and improve soil fertility. This way the forest would help create the rich soils needed in a productive forest, and thus enable food production for consumption and distribution through local networks.

• Franco Llobera - Economías Bioregionales •

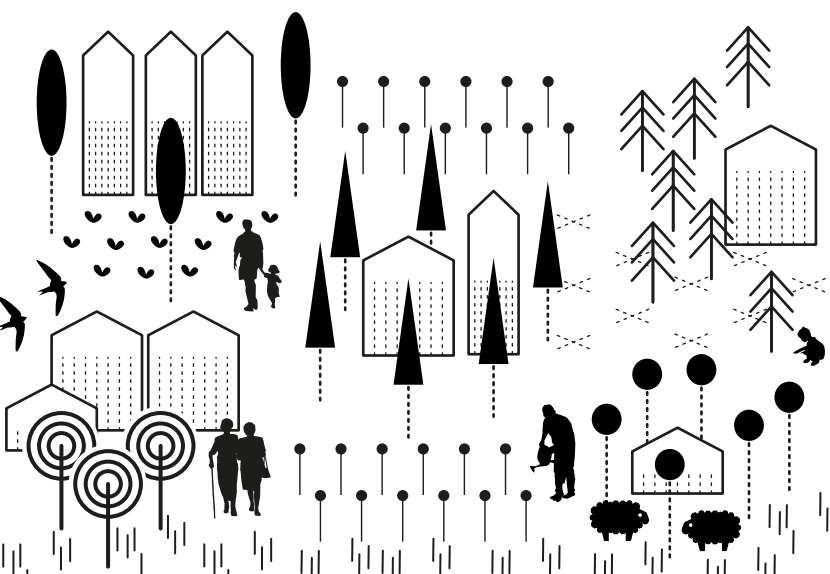


• 16 •

Seeking a symbiotic relationship between the rural and the city, bringing back sustainable, local farming practices

The Metropolitan Forest can reclaim rural knowledge and practices that have been forgotten in the city, reinventing their associated economies and situating them once again in the periphery of Madrid. An example of this are the urban herds of the Casa de Campo, able to produce artisan cheeses that are later sold in the local economy. It is important to bridge the gap between the rural and the city, ceasing to view the periphery as a hostile environment and bringing it back to life thanks to the recovery of multipurpose practices such as agroforestry and silvopasture.

• Fernando García-Dory - Campo Adentro •

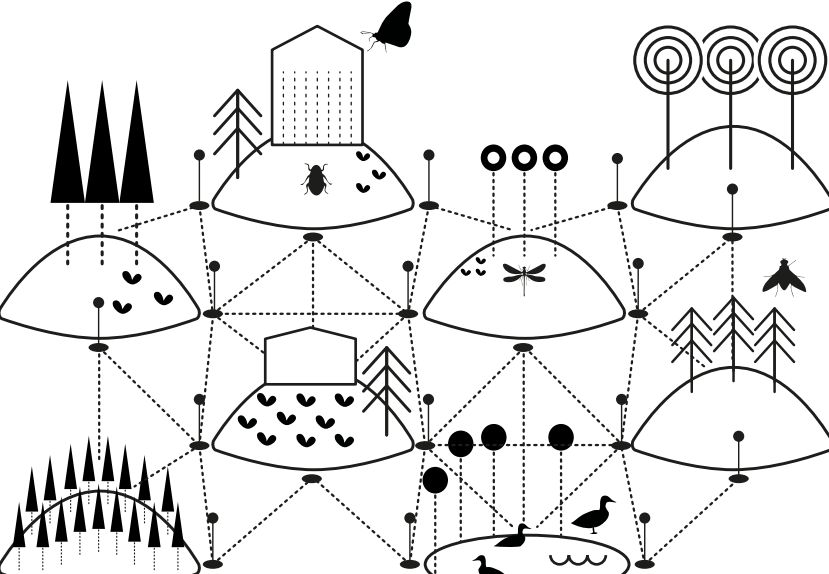


• 17 •

Using assessment methods for the project beyond those traditionally considered

Who benefits? How do they benefit? How is value created? How can it be financed? How can funding sources be mobilised? These are the questions to answer when assessing solutions to the challenges identified in the Sustainable Development Goals (SDGs), solutions among which is the Metropolitan Forest. A challenge that needs the collaboration of every part of society, sharing the risks and benefits of its development as a whole.

• Alicia Carvajal - Arup •

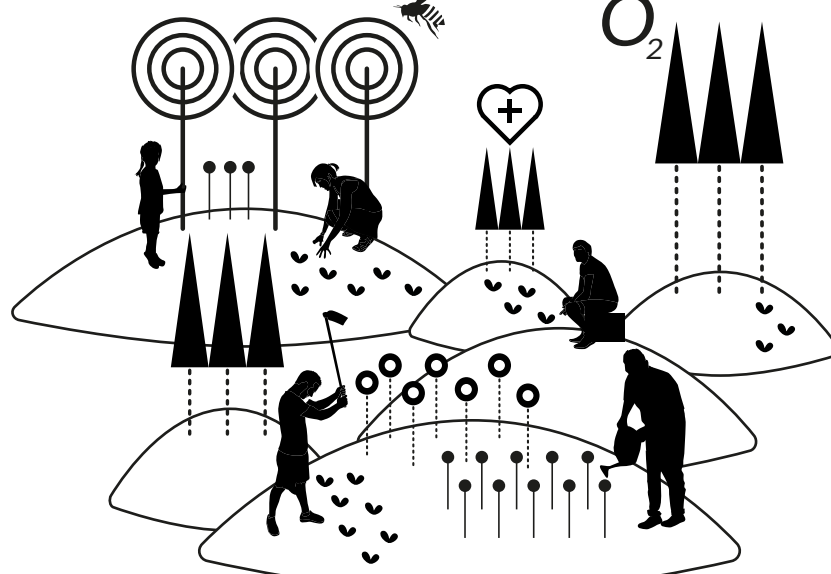


• 18 •

Understanding the forest in terms of cultural networks, biodiverse and ecosystematic

The Metropolitan Forest must involve multiple networks: cultural networks that can develop new pedagogies related to outdoor classrooms, establishing market gardens or plant nurseries in association with schools, or rethinking the forest beyond the "green" discourse and approaching ecosystematic logics; biodiverse networks where new interspecies relationships can be imagined and where micro-diversity is fostered; and ecosystematic networks in order to understand that the forest should not be invented from nowhere but rather intensified from what is already there.

Workshop 1 - The Integration of Nature in the City:
New narratives, models, and aesthetics



• 19 •

Promoting a forest that cares for us and that we can care for, in a broad sense

The Metropolitan Forest has to be conceived to care for and contribute to people's physical and mental health, able to offer space for physical exercise, walks, shaded areas, spaces for outdoor workshops in nature, etc. Also inversely, the Metropolitan Forest is an ecosystem to care for, which we will see grow and mature, where it is possible to increase urban biodiversity and that favours ecological processes such as pollination. A place that invites us to question notions such as biodiversity or nativeness.

Workshop 2 - Nature as the Protector of Health and Biodiversity

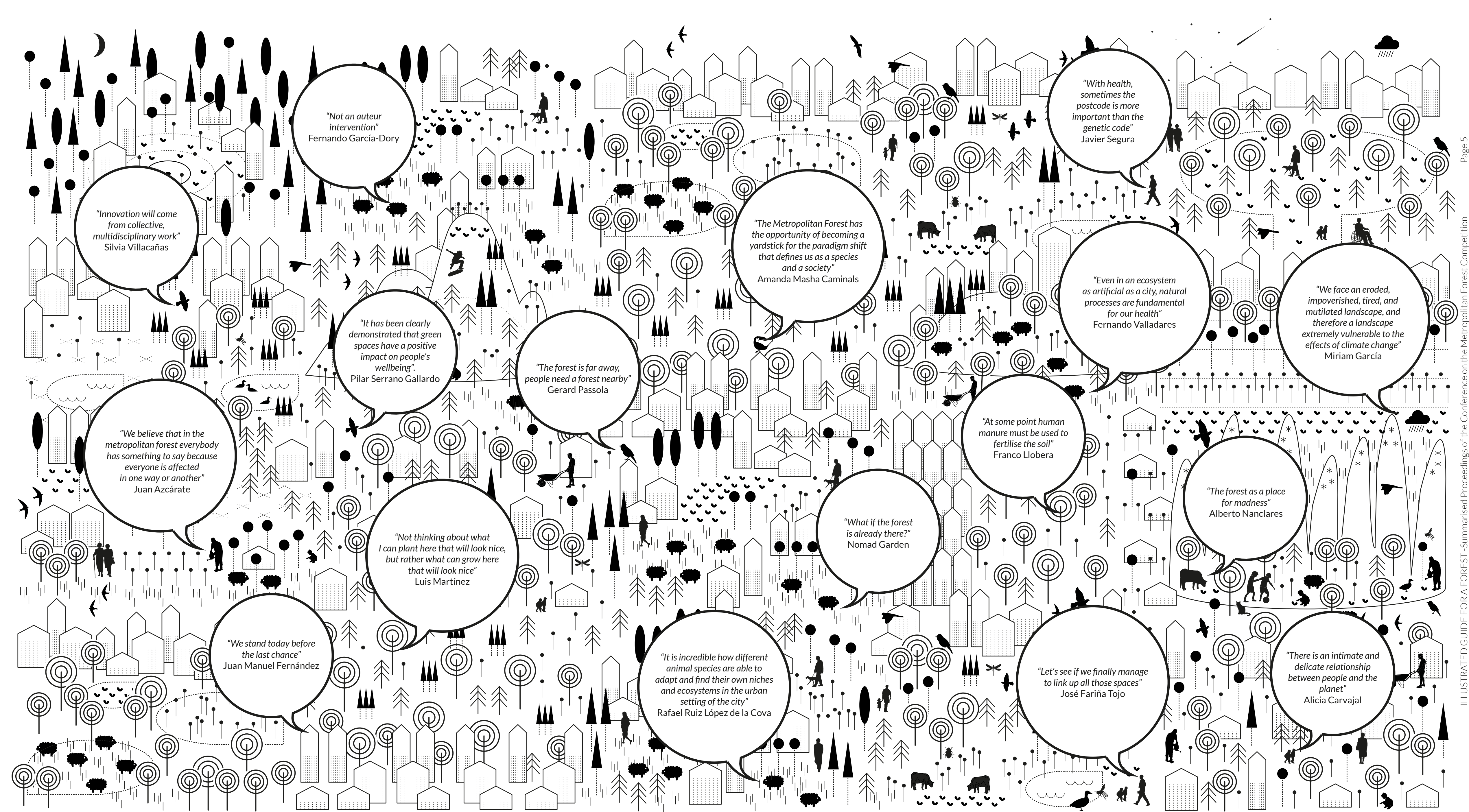


• 20 •

The potential of a forest to become a space of pedagogical, cultural, technological, and digital innovation

The Metropolitan Forest has as many possibilities as we are able to propose. It can become a place to learn about nature and investigate it in an urban environment, where a combination between citizen science and data takes centre stage. It can be a "wild" space for culture, art, and the improbable. It can be a space in which to trial various models of collaboration and partnership between different sectors of society. Or perhaps it can become a space to rewild, self-managed with no human management; letting it be.

Síntesis del Taller 3:
Nuevas economías y empleos verdes



"Not an auteur
intervention"
Fernando García-Dory

"Innovation will come
from collective,
multidisciplinary work"
Silvia Villacañas

"It has been clearly
demonstrated that green
spaces have a positive
impact on people's
wellbeing".
Pilar Serrano Gallardo

"The forest is far away,
people need a forest nearby"
Gerard Passola

"The Metropolitan Forest has
the opportunity of becoming a
yardstick for the paradigm shift
that defines us as a species
and a society"
Amanda Masha Caminals

"With health,
sometimes the
postcode is more
important than the
genetic code"
Javier Segura

"Even in an ecosystem
as artificial as a city, natural
processes are fundamental
for our health"
Fernando Valladares

"We face an eroded,
impoverished, tired, and
mutilated landscape, and
therefore a landscape
extremely vulnerable to the
effects of climate change"
Miriam García

"We believe that in the
metropolitan forest everybody
has something to say because
everyone is affected
in one way or another"
Juan Azcárate

"At some point human
manure must be used to
fertilise the soil"
Franco Llobera

"The forest as a place
for madness"
Alberto Nanclares

"Not thinking about what
I can plant here that will look nice,
but rather what can grow here
that will look nice"
Luis Martínez

"What if the forest
is already there?"
Nomad Garden

"We stand today before
the last chance"
Juan Manuel Fernández

"It is incredible how different
animal species are able to
adapt and find their own niches
and ecosystems in the urban
setting of the city"
Rafael Ruiz López de la Cova

"Let's see if we finally manage
to link up all those spaces"
José Fariña Tojo

"There is an intimate and
delicate relationship
between people and the
planet"
Alicia Carvajal

CREDITS

CONFERENCE ON THE METROPOLITAN FOREST COMPETITION: CLIMATE, TERRITORY, AND SOCIETY

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Area of Urban Development. City Council of Madrid

SUPPORTED BY:

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Development of the Polytechnic University of Madrid

(itdUPM) and EIT Climate-KIC

Advisory board

Marisol Mena. City Council of Madrid

Juan López-Aranguren. Democratic Society

Technical coordination and co-organizers

Manuel Almestar. itdUPM

Irene Ezquerro. itdUPM

Luisa Fernanda Guerra. itdUPM

Manuel Pascual García. zuloark

Conference presenter

Antonella Broglia.

Workshops facilitators

Rosa Jiménez

Esaú Acosta

Julia López Varela

Workshops rapporteurs

Nieves Mestre. UPM

Sonia Roig Gómez. UPM

Valentina Oquendo. UPM

Francesca Olivieri. UPM

Illustrated guide rapporteurs

Lys Villaba Rubio

Malú Cayetano

Translator spanish-english

Daniel Lacasta Fitzsimmons

TALKS

THE METROPOLITAN FOREST IN THE CONTEXT OF THE CITY 13th July

PART 1

The Metropolitan Forest Competiton

Silvia Villacañas

Director. Strategic Planning Office

City Council of Madrid

Historical overview and current urban situation

Juan Manuel Fernández

Deputy Director. Urban Assessment Office

City Council of Madrid

Forest, diversity and context. First actions

Luis Martínez. SEO Birdlife

The city and the river as connectors for the Regional Parks

Rafael Ruiz López de la Cova

Director. Guadalajara Natural Parks

PART 2

Designing an urban life with an ecological perspective

Jose Fariña Tojo. UPM

The protective role of nature for our health

Fernando Valladares. CSIC

Social inequalities in health and pandemics

Pilar Serrano Gallardo. UAM

The Metropolitan Forest towards

the decarbonization of the city

Juan Azcárate

Deputy Director. Energy and Climate Change Office

City Council of Madrid

EXPANDING THE COLLECTIVE IMAGINERY OF THE FOREST 14th July

PART 1

The Integration of Nature in the City:

New narratives, models, and aesthetics

One forest, multiple views

Alberto Nanclares. Basurama

The cosmopolitan garden

Nomad Garden Sevilla

Instituto Mutante de Narrativas Ambientales. INMA

Amanda Masha Caminals. Matadero Madrid

PART 2

Nature as the Protector of Health and Biodiversity

Nature as social determinant of health

Javier Segura. Ayuntamiento de Madrid

A forest of multiple landscapes

Miriam García. Landlab

Urban forestry

Gerard Passola. Doctor árbol

PART 3

New Green Economies and Jobs

Agroecological regeneration and social entrepreneurship

Franco Llobera. Economías Bioregionales

Campo Adentro

Fernando García-Dory

Potentialities and risks in green economies

Alicia Carvajal. Arup

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Climate-KIC
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