



CLEARINGHOUSE
中欧城市森林应对方案

Urban forests as nature-based solutions

an European perspective

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该项目获得欧洲H2020研究与创新计划的资助（拨款协议号码：821242）。部分中国合作伙伴也为此提供了资金。



Nature-based Solutions Solutions to what?



TREE EQUITY SCORE

ENSURING TREE COVER IN CITIES IS EQUITABLE



(c) Allinforhealth.info

(c) Anne Fleig

Urban forests save money to health insurance

- Socio-economic monetary benefits of Hallerbos (SE of Brussels,)
 - Total: 12,6 M€ to 23,8 M€
 - 2.900.000 €/yr avoided expenses in health care = 12% monetary value
- Other benefits
- Improved air: 3,4 M € to 6,9 M €/yr
- Wood production: 0,2 M €/yr



Why do we focus on health aspects?



Richard Mitchell et al. 2008





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AND HEALTHIER FUTURE.**

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Green4C is a three-year project innovating and promoting nature-based health and social care through university business alliances.

Join

Creating a strong research-enterprise alliance at EU level in order to develop, support and enhance knowledge and practice exchange and flow throughout the alliance and beyond in the field of Green Care.

[DISCOVER OUR NETWORK](#)

Learn

Fostering innovation and facilitating entrepreneurial opportunities, capacity and skills for students, researchers, professionals, as well as practitioners through new learning approaches and platforms in the field of Green Care.

[READ THE DELIVERABLES](#)

Practice

Putting the knowledge and capacity of the alliance into practice to exploit the potential for marketable processes, methods and services that promote new sustainable businesses in the field Green Care.

[FIND OUT MORE](#)



Tree Equity Score

A map of tree cover in any city in the United States is too often a map of race and income. This is unacceptable. Trees are critical infrastructure that every person in every neighborhood deserves. Trees can help address damaging environmental inequities like air pollution.



The shade from trees can cool an area by as much as 10 degrees, this can help reduce the risk of heat-related illnesses and lower utility bills.

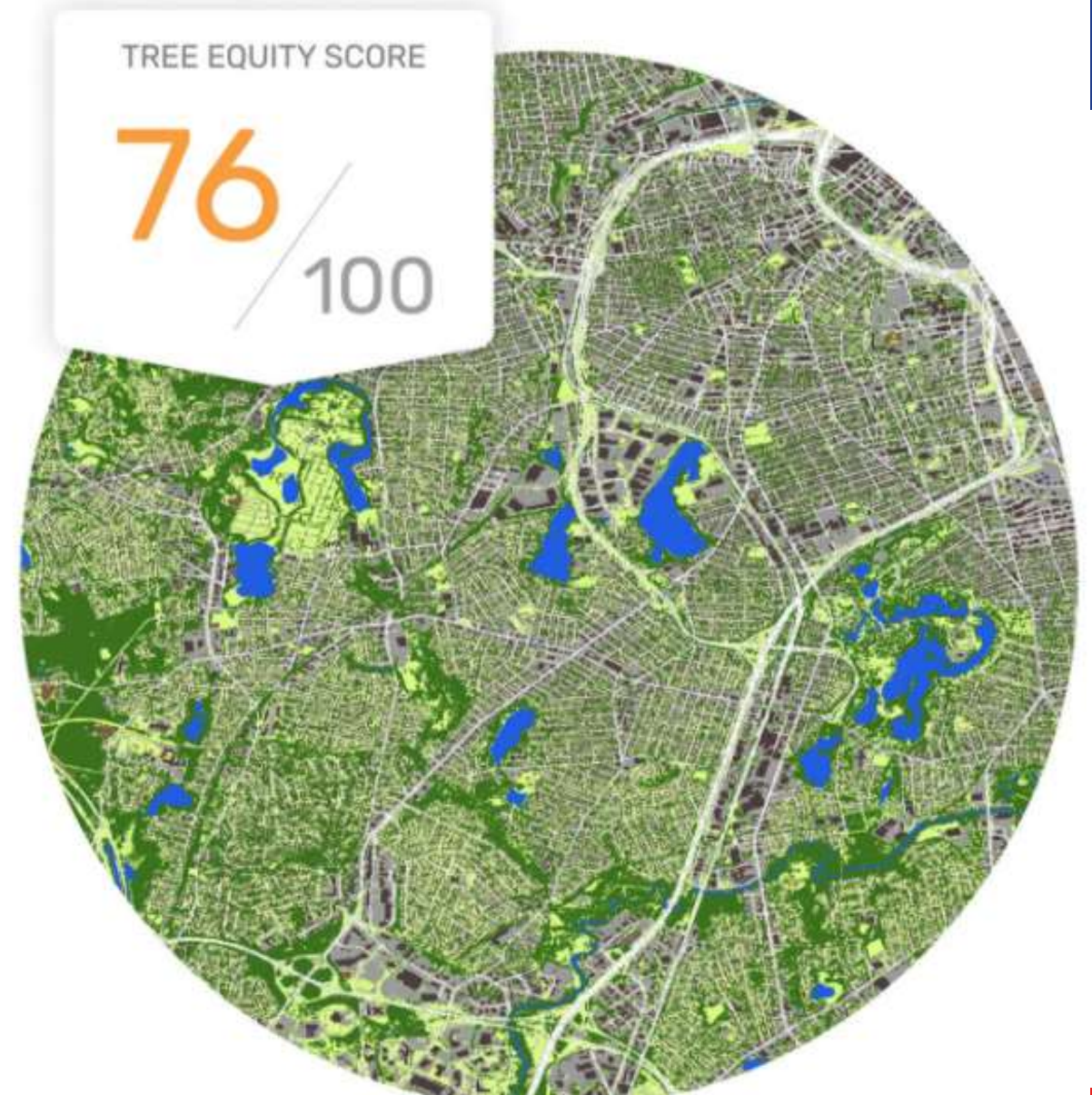


Planting and taking care of trees is a means to create good paying jobs.



Trees provide oxygen and help clean the air we breathe by absorbing pollutants on the surface of their leaves.

To help address this problem, **American Forests** developed the methodology for calculating Tree Equity Scores for city neighborhoods.



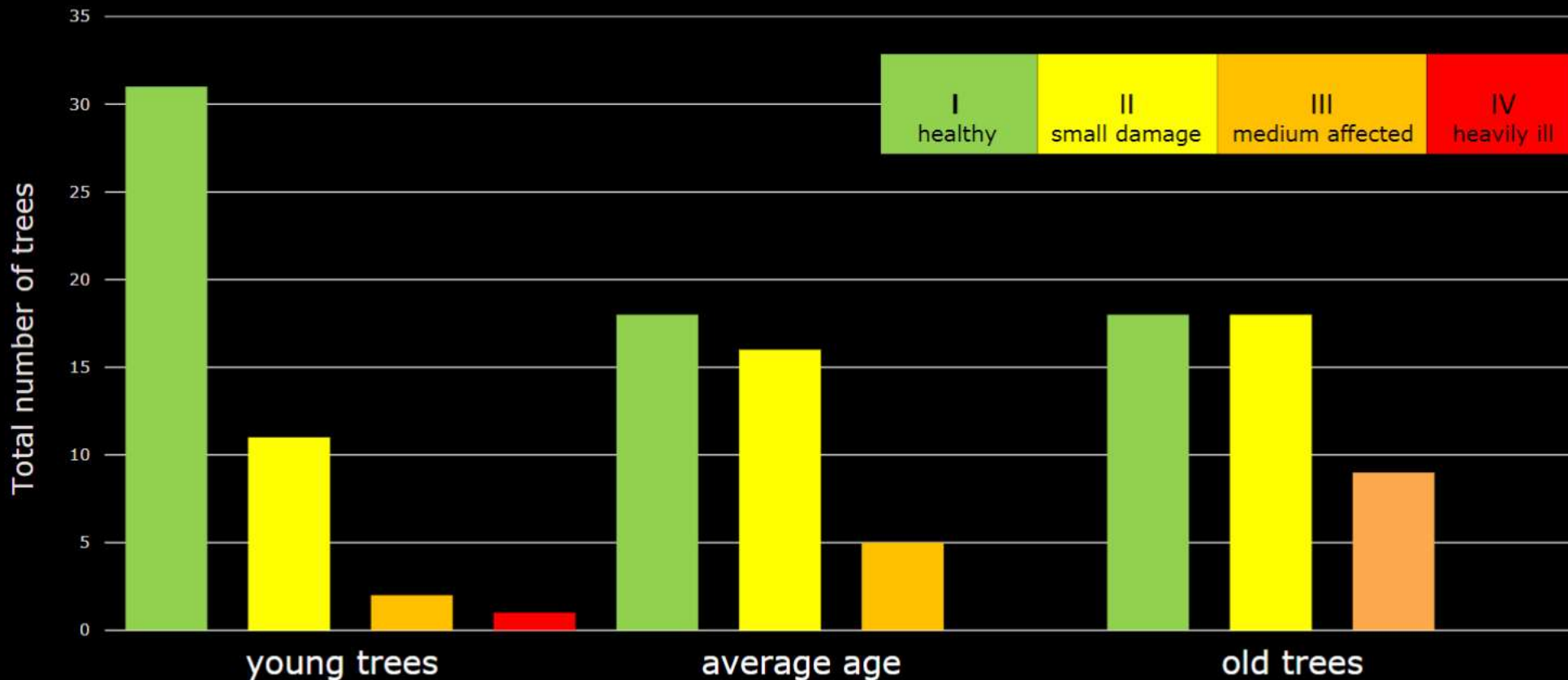
Health – open questions

- What types of forest/green space/green-blue space is offering most health benefits?
- How to design and manage these spaces?
- Which species to use?
- How to reach the most vulnerable population?



Climate Change – drought & flood

Traits of tree health – Mapping 2020



Source: Haase (2021). Where do Urban Forests Go? 23 March 2021, Bonn, Urban Forestry Days





Die neue Baum-App
Gelsenkirchen

Volle Kanne!

- 1 Baum-App laden
- 2 Gießpatenschaft abschließen
- 3 #REGENMACHEN





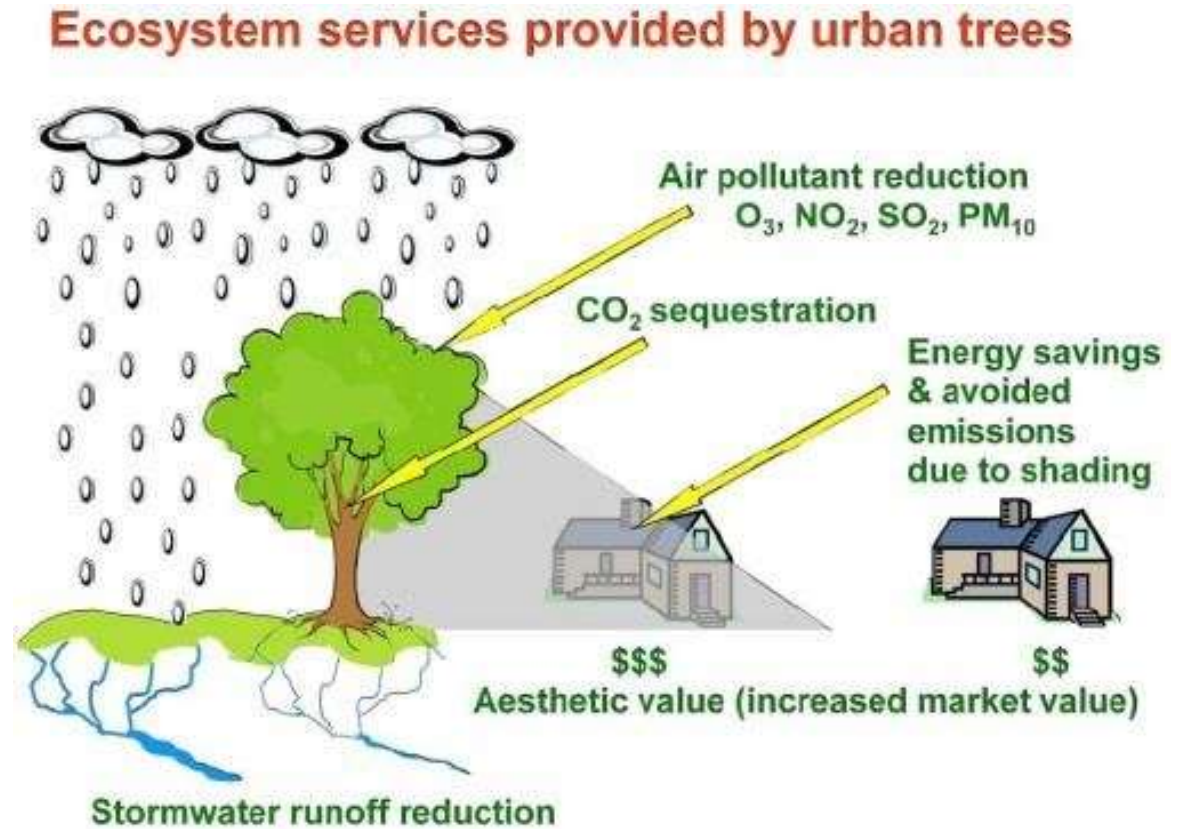
Climate Change – open questions

- What types of forest/green space/green-blue space is offering most benefits re urban heat island/flood control/drought resistance?
- How to design and manage these spaces?
- Which species to use?
- How to reach the most vulnerable population?



Urban Trees and Forests

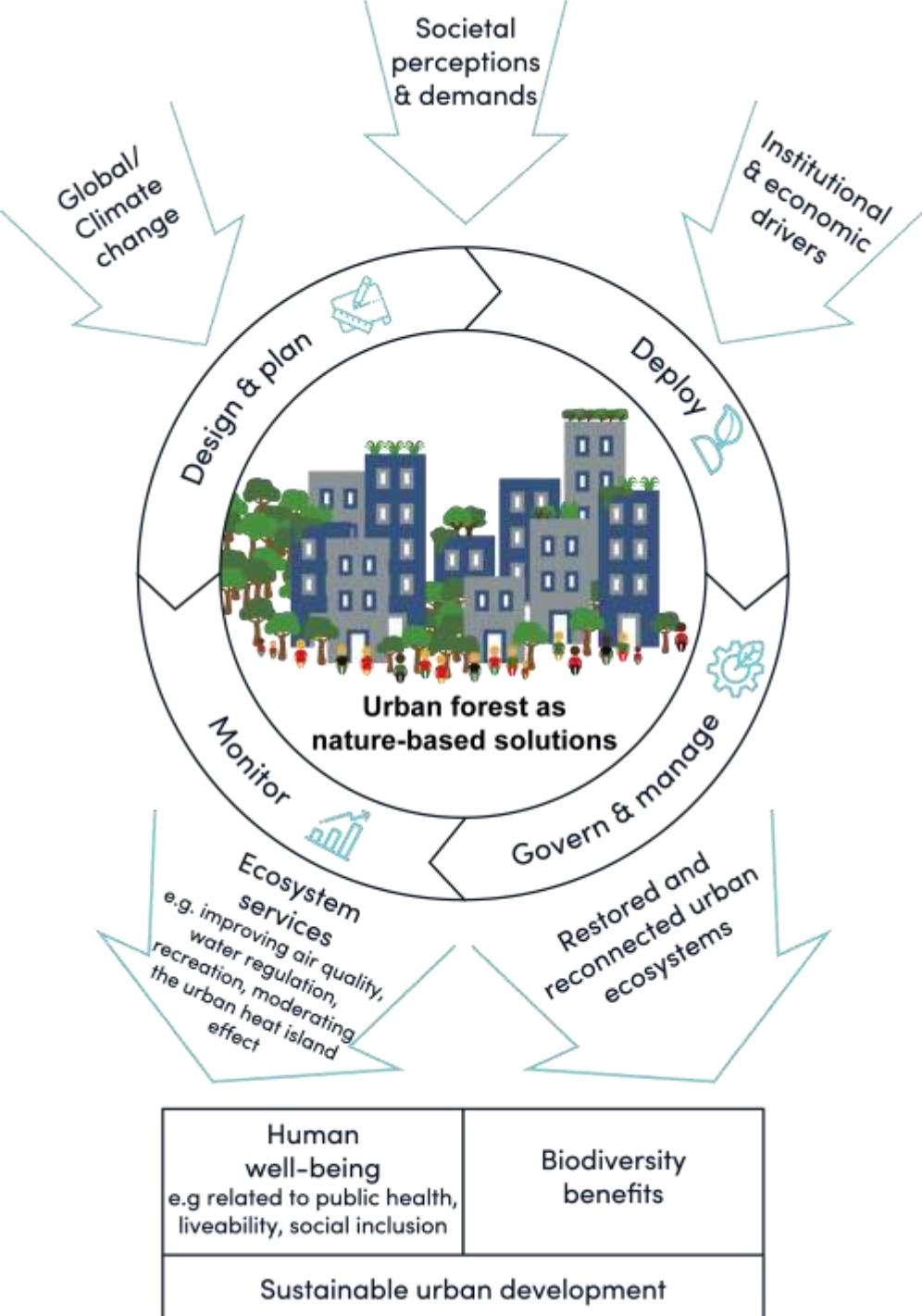
1. **Historically** trees and forests in urban areas have been undervalued in respect of the ecosystem services they deliver to urban societies.
2. In urban areas, existing policies and practice for the governance, management and conservation of trees and forests will need to change to deliver the **new role for urban trees**
 - enhancing specific ecosystem services (incl. biodiversity and climate)
 - meeting new societal demands.



Credit: iTreetools.org



Urban Forests as Nature-based Solutions (UF-NBS)



- Nature-based solutions are “solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience.”

Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.

Nature-based solutions must therefore benefit biodiversity and support the delivery of a range of ecosystem services.” (EU,

- UF-NBS includes peri-urban and urban forests, forested parks, small woods in urban areas, and trees in public and private spaces.



The arrival of Urban Forests as Based Solutions (UF-NBS)

1. Green infrastructure is the basis for the delivery of *urban forests as nature-based solutions* or *UF-NBS*.
2. UF-NBS is posited as an effective strategy for tackling climate change and other urban **sustainability challenges**
3. Within its broadest context it can link with **Sustainable Development Goals** and can operate at scales from the local to the regional.



CLEARING HOUSE Project



CLEARINGHOUSE
中欧城市森林应对方案

Collaborative **L**earning in **R**esearch,
Information-sharing and **G**overnance on
How **U**rban forests as nature-based
solutions support **S**ino-**E**uropean urban
futures.

- **Coordinators:** European Forest Institute (EFI) & Chinese Academy of Forestry – Research Institute for Forestry (CAF-RIF)



48
MONTHS

26
PARTNERS

11
COUNTRIES

10
CITIES &
URBAN
REGIONS

5.5 MIO EUR
BUDGET



CLEARINGHOUSEPROJECT.EU



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Aims, outcomes & case study cities



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1. Identifying and filling **key gaps** in knowledge
2. Policy and management improvements
3. Sino-European tools to **support the whole cycle of UF-NBS implementation**
4. Sino-European research into the **health impacts** of urban green (physical & mental), including COVID-19
5. **Sino-European societal survey** on perception, use and needs regarding urban forests and urban trees
6. Sino-European **thematic guidelines**
 - (a) cost-effective urban ecosystem restoration
 - (b) mechanisms for public and stakeholder engagement
 - (c) management guidelines for UF-NBS
 - (d) change management and institutional reform for the better management of UF-NBS



UF-NBS Case studies



This project has received funding from the European Union's Horizon 2020 Research and Innovation Program under Grant Agreement 821242.



Outcomes for practitioners

Business models and investment cases for UF-NBS

Four thematic guidelines to assist authorities decision-makers and civil society worldwide in delivering UF-NBS to their communities and local stakeholders

Online application for developing modelling and assessing you have NBS scenarios in urban development

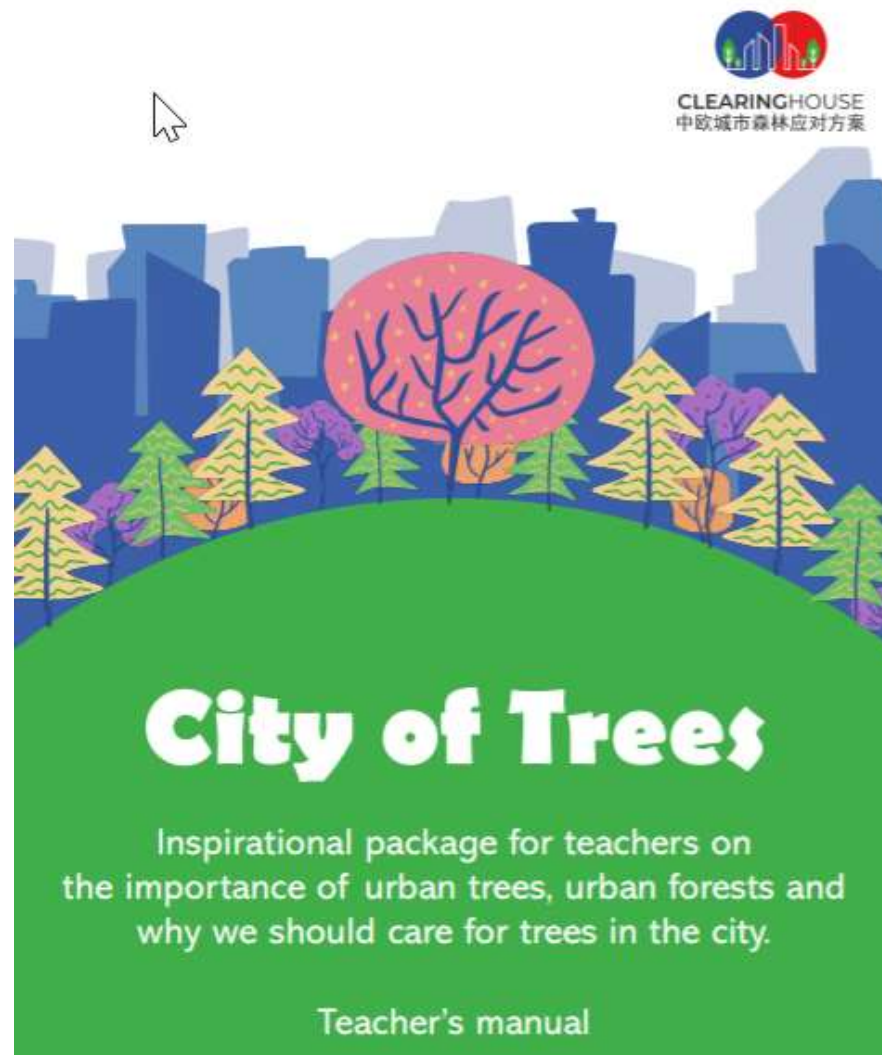
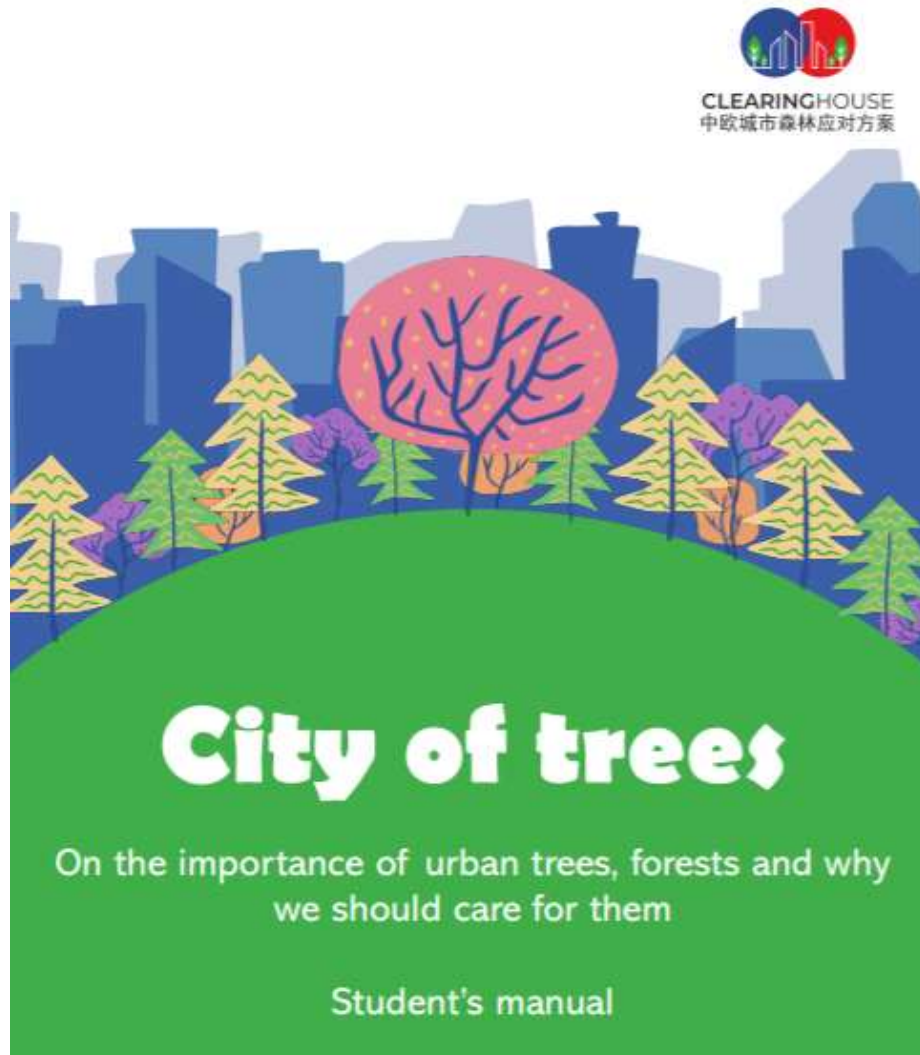
Global benchmarking tool to compare UF-NBS in different settings

Resources coming later include



Education package -

<https://clearinghouseproject.eu/city-of-trees/>



European Forum on Urban Forestry (EFUF)

URBAN FORESTS FULL OF ENERGY

BOOK OF ABSTRACTS

Cologne 2019
May 22-24



- Yearly meeting place for practitioners, decision-makers and researchers on urban trees, urban forestry and urban greening – since 1998
- Follow on **Twitter** (@EFUrbanForestry), **Facebook** (@EFUrbanForestry) and at <http://www.efuf.org>.
- **myEFUF app** - <https://efuforg.wordpress.com/myefuf/>
- **Podcasts:** Spotify - <https://open.spotify.com/show/5g9OLDQtrHThjcScT0rmPO>
- **Webinars:** <https://www.youtube.com/channel/Uck-ek6IKpD0BICZosNH79xQ>
- 17-21 May 2022 – Adaptive measures in Urban Forests (**Belgrade**)





AIMS

- facilitating the **co-creation, and flow of knowledge** among universities, local authorities, and businesses coming from four key disciplines: urban landscape planning, forest ecology, socio-economics and, information and communication technologies;
- promoting a **new, multidisciplinary and global blended training course** and programme on Urban Forestry for both students and professionals;
- **stimulating and activating entrepreneurship** in students, researchers and professionals to provide public and private sectors with innovative and cost-effective UF solutions.

TO COME

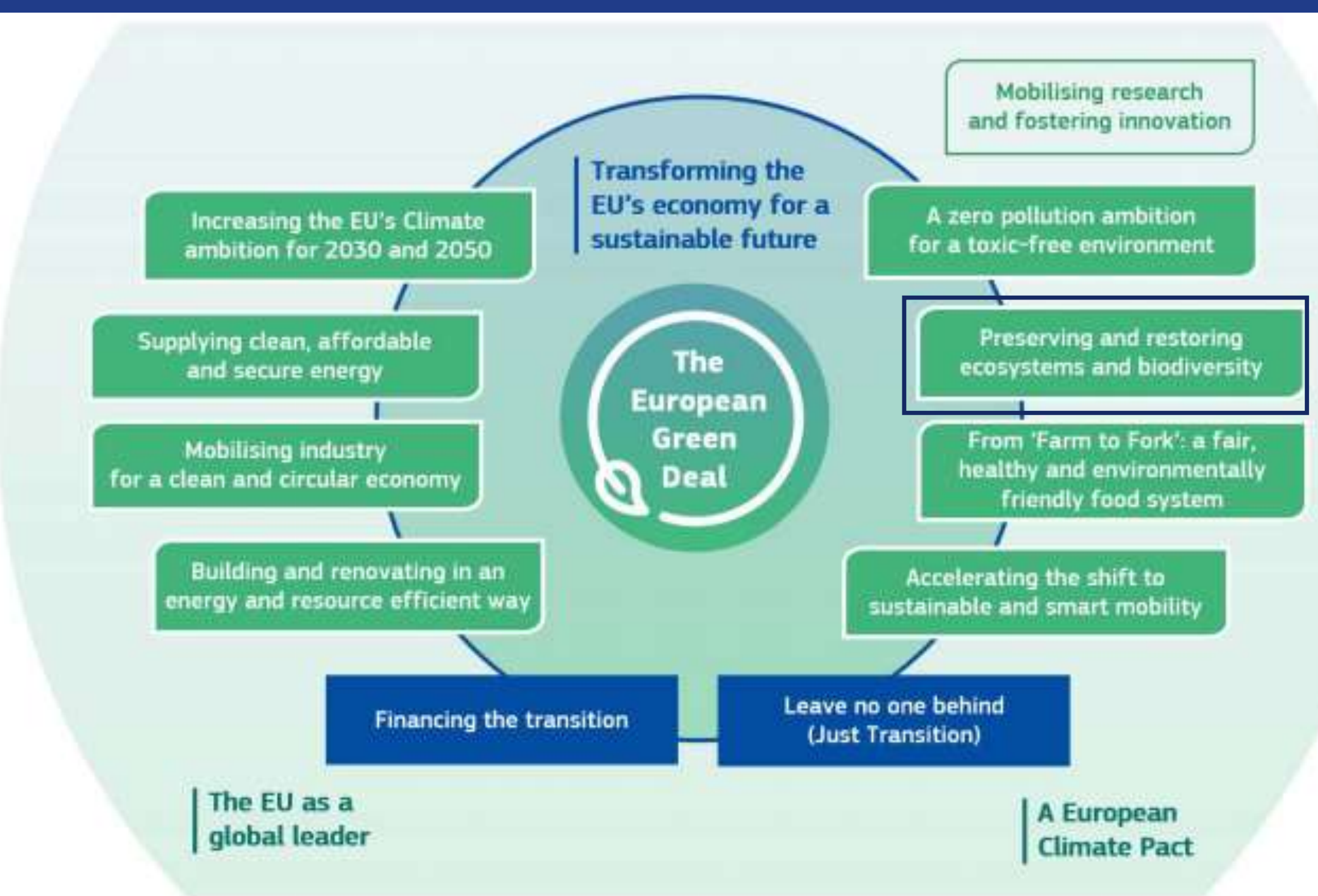
- **e-learning course** (autumn 2022)
- **Specialisation programme** (2023 – at POLIMI & UAB)
- **EU Urban Forestry Challenge** (2023)
- **Uforest Alliance** (2022)

<http://www.uforest.eu>

Promoted by:

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The EU's forested area needs to improve, both in quality and quantity, for the EU to reach climate neutrality and a healthy environment. Sustainable re- and afforestation and the restoration of degraded forests can increase absorption of CO2 while improving the resilience of forests and promoting the circular bio-economy



Bringing nature back into our lives

EU 2030 Biodiversity strategy

“Planting trees and deploying green infrastructure will help us to cool urban areas and mitigate the impact of natural disasters.”

“A roadmap for **planting at least 3 billion additional trees** in the EU by 2030. Tree planting is particularly beneficial in cities” (key commitment by 2030)

“The new **European Urban Greening Platform** will also facilitate urban tree planting, including under the LIFE programme”

“This strategy aims to reverse these trends and **stop the loss of green urban ecosystems**. The promotion of healthy ecosystems, green infrastructure and nature-based solutions should be systematically **integrated into urban planning**, including in public spaces, infrastructure, and the design of buildings and their surroundings. To bring nature back to cities and reward community action, the **Commission calls on European cities of at least 20,000 inhabitants to develop ambitious Urban Greening Plans.**”

EU 2030 Forest Strategy

Re- and afforestation of biodiverse forests

This concerns **mainly urban and peri-urban areas** (including e.g. urban parks, trees on public and private property, greening buildings and infrastructure, and urban gardens) and agricultural area (...). It is important to capitalise on this potential, as enhanced afforestation is also **among the most effective climate change and disaster risk mitigation strategies** in the forest sector, and can create substantial job opportunities, (...), as well as **providing socio-economic benefits** to local communities. Also, exposure to green and forested areas can **greatly benefit people's physical and mental health**.

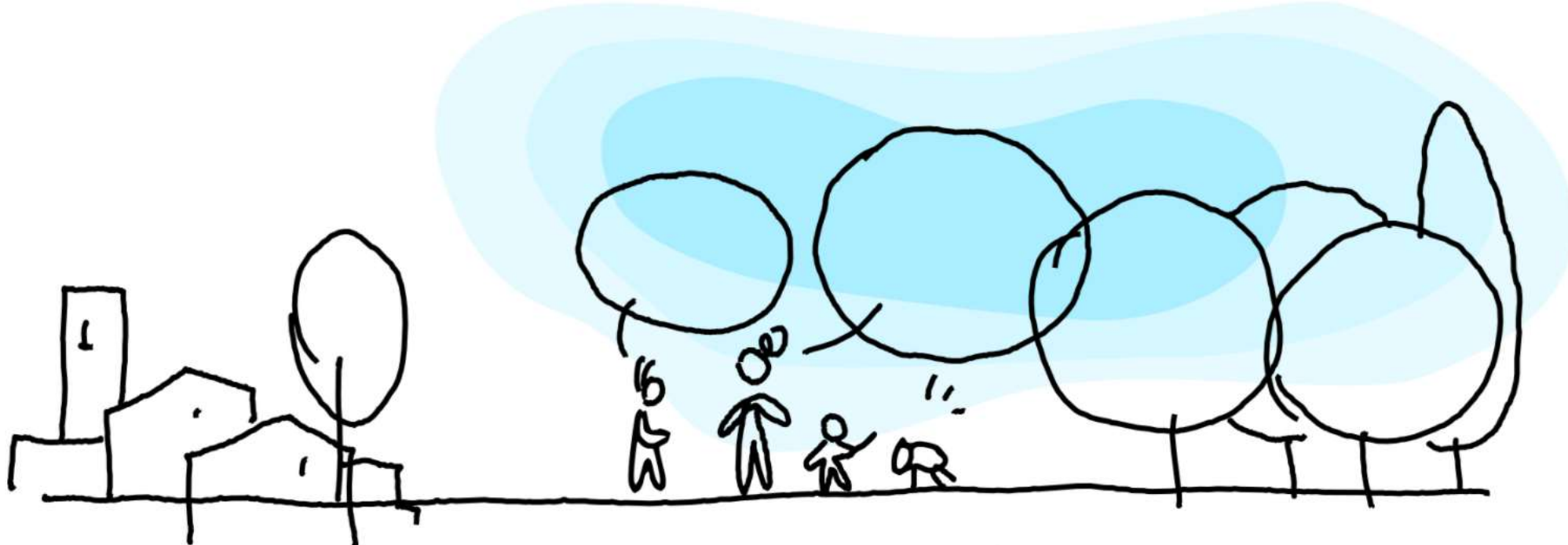
The EU Biodiversity Strategy for 2030 sets out a **pledge to plant at least 3 billion additional trees by 2030** in full respect of ecological principles. (...) This Strategy includes a roadmap for the implementation of the pledge based on the overall principle of **planting and growing the right tree in the right place and for the right purpose**.



Green City Accord

A European Commission initiative to make cities greener, cleaner and healthier.

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New European Bauhaus
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谢谢

Thank you



Thank you



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