



Digital platforms for municipal ecosystem accounting? – testing the TEP URBAN in Oslo

David N. Barton and Zofie Cimburova, NINA

Jakub Balhar, TEP Urban project, GISAT

Contents

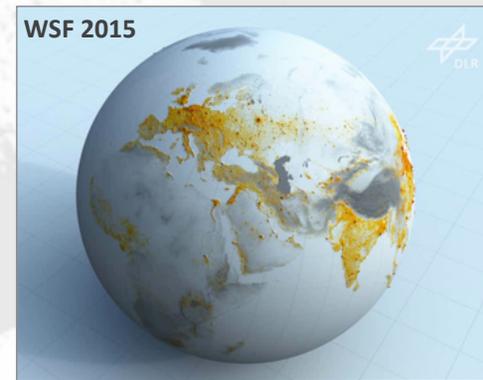
- 1. TEP Urban platform of the European Space Agency**
- 2. World Settlement Footprint**
- 3. Modelling regulating services of urban forest using i-Tree Eco in Oslo**
- 4. Preliminary test of TEP Urban as platform for communicating urban ecosystem accounting data in Oslo**
- 5. Next steps**

Tracing Global Urbanization: New Data from Space

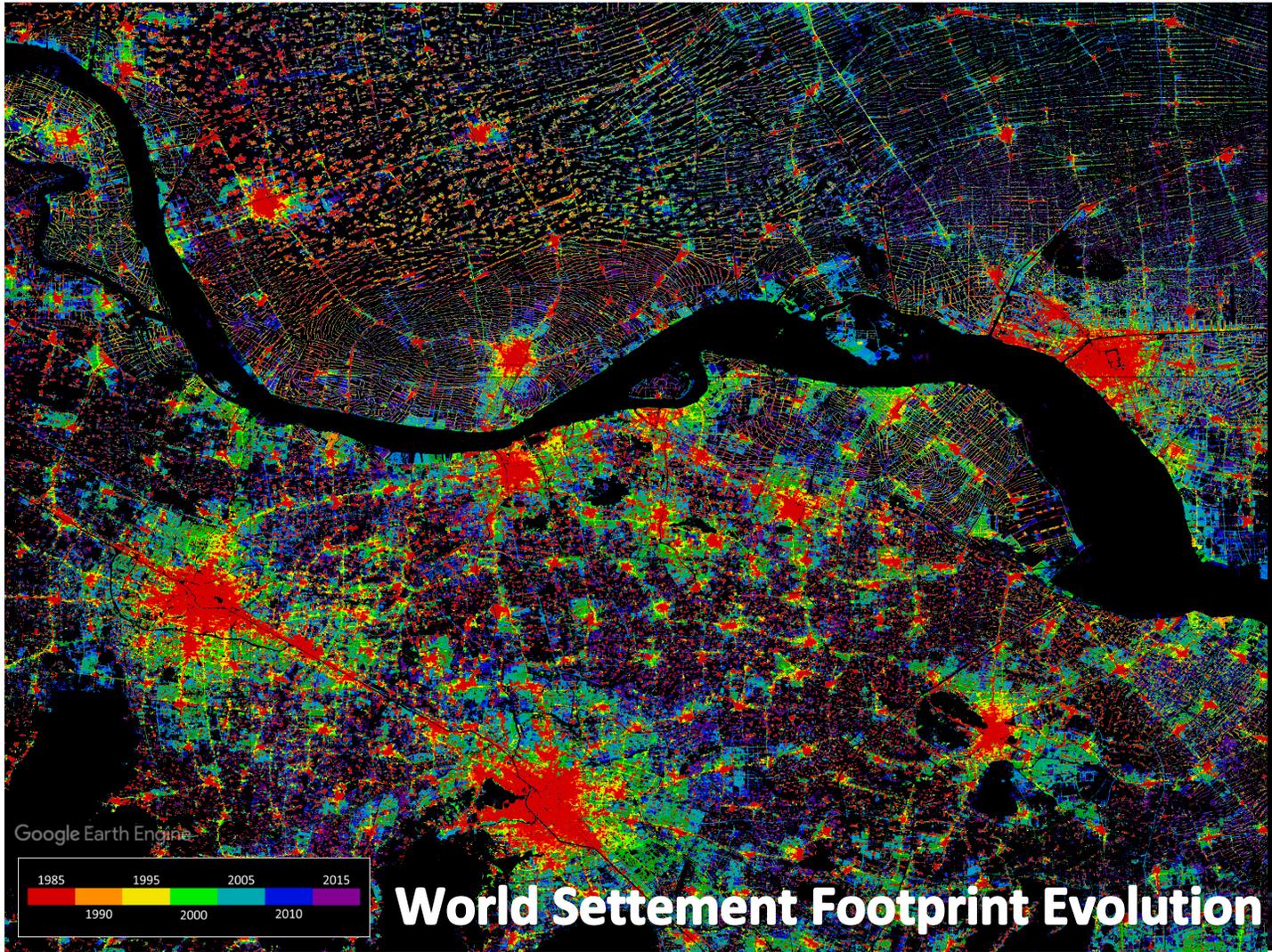
- **Global Urban Footprint (GUF)**
 - Data base: 182,249 TerraSAR-X/TanDEM-X images (3m) collected in 2012 (308 TB)
 - Spatial resolution: 12 m (scientific use), 84m (non-profit use)
 - Release: November 2016
- **World Settlement Footprint (WSF)**
 - Use of free and open data
 - Multi-sensor (Sentinel-1, Landsat/Sentinel-2)
 - Multi-date (use of all scenes acquired, > 2.5 PB)
 - Multi-facility (DLR, U-TEP, GEE)
 - Release: January 2018

Product portfolio

- WSF 2015 (10m, binary mask)
- WSF 2015 Density (30m, imperviousness)
- WSF 2015 Network (settlement pattern)
- WSF Evolution (30m, 1984-2015)
- WSF/GUF 3D (average building volume)







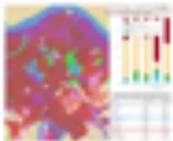
Contents

- 1. TEP Urban platform of the European Space Agency**
- 2. Example: World Settlement Footprint**
- 3. Modelling regulating services of urban forest using i-Tree Eco in Oslo**
- 4. Preliminary test of TEP Urban as platform for communicating urban ecosystem accounting data in Oslo**
- 5. Next steps**

Starke community where you can find applications and resources for managing your workspace and your data in the Urban TEP.

Overview **Members** Applications Activities Edge services Users Management Usage Community Management

Community Applications

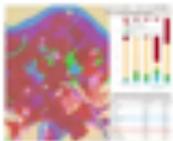


Explore State of Global Urbanization in 2015

Analyze State of Global Urbanization in 2015

Jun 19th 2019

[View App](#)

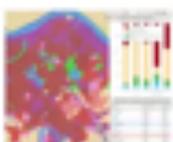


Analyze State of Global Urbanization in 2015

World Settlement Footprint 2011 (WSF 2011) generated by the German Aerospace Center (DLR) is the first map using mass collections of both radar and LiDAR.

Jun 19th 2019

[View App](#)



Sustainable Development Goal 11.3.1

Demo application showing the information about the Sustainable Development Goal 11.3.1 for Cambodia, Laos, Thailand and Vietnam.

Jun 19th 2019

[View App](#)



Test my processor

by [Rembau](#)

Test my processor application allows an expert user to discover and test its newly deployed processing services.

Mar 18th 2019

[View App](#)

Members (229)

4 Content Authority
22 total items

Useful links

- Product Portfolio
- Visualization and Analytics Toolbox
- Create Your Own Application in Visual
- Earth Observation Processing Services
- Webinar Recordings
- Processing Tutorials
- All Video Tutorials
- Propagation Index Applications

Top discussions [Go to discuss](#)

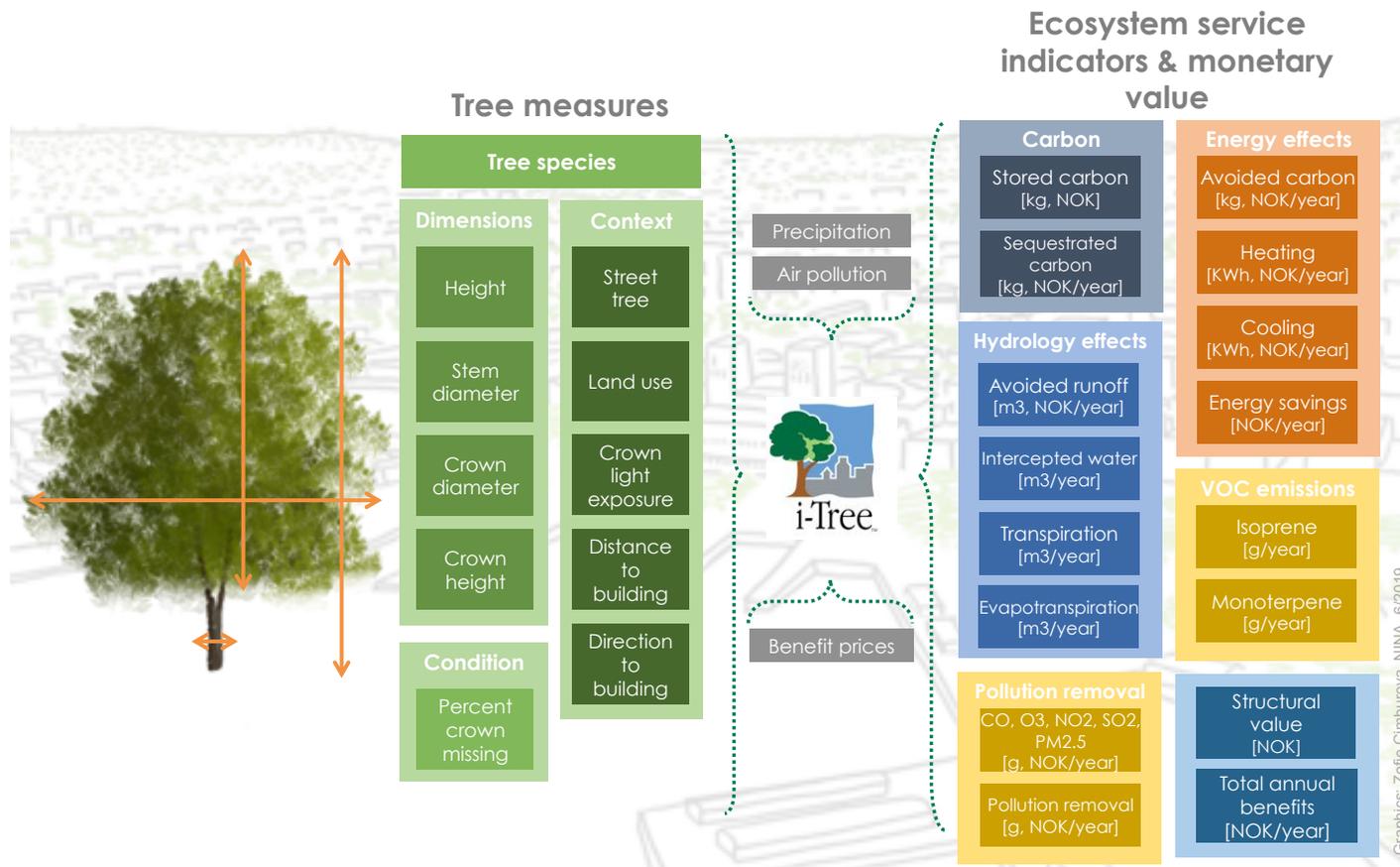
-  About the Starter users category
2 a month ago • 11 views
-  Quick Start of the Platform
2 a month ago • 10 views
-  Learn to use Climate-Fit Services
2 a month ago • 10 views
-  Discriminate Between Urban and Rural Settlements
2 a month ago • 10 views

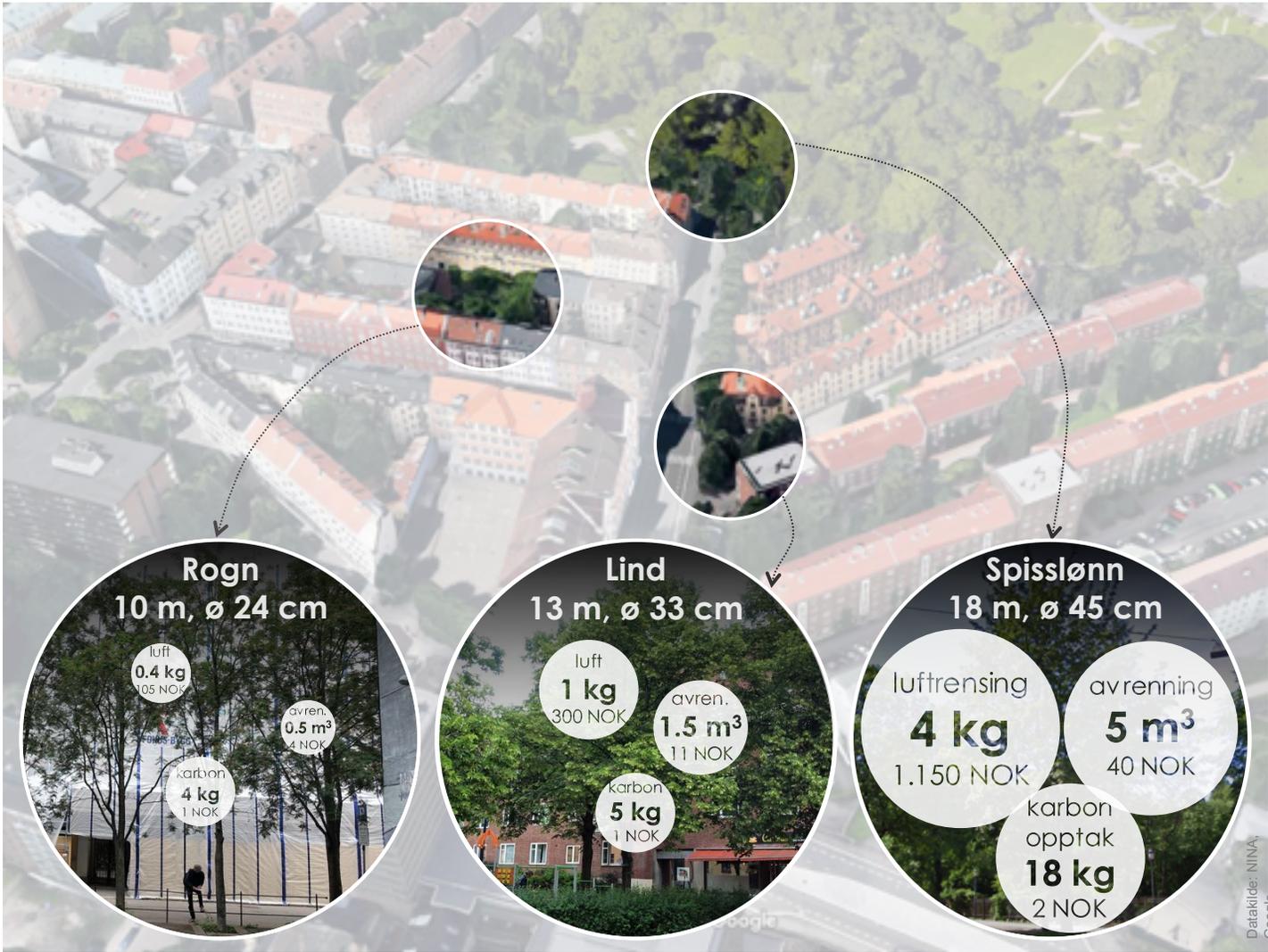
DRPT VIDEO TALK... [View all](#)

Contents

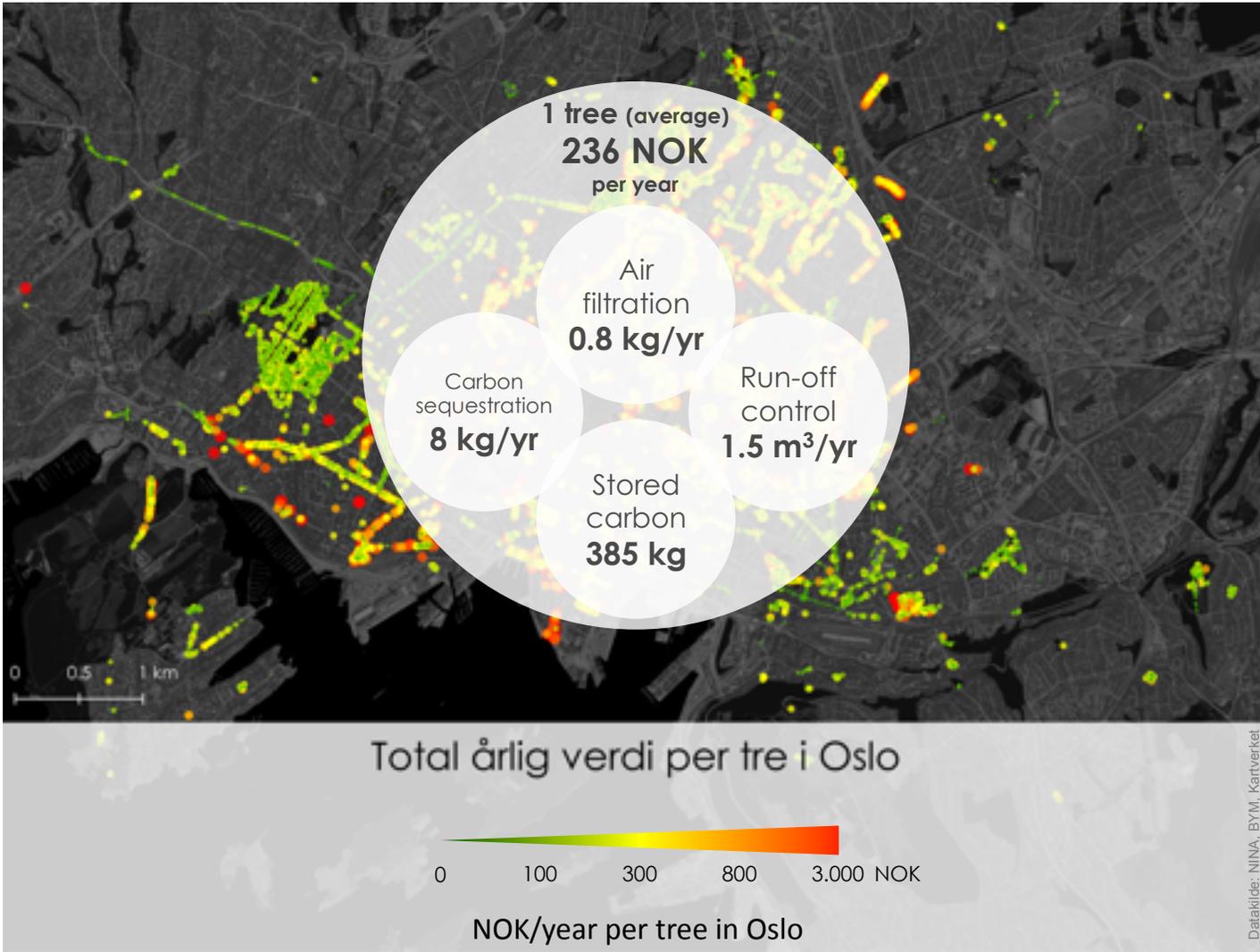
- 1. TEP Urban platform of the European Space Agency**
- 2. World Settlement Footprint**
- 3. Modelling regulating services of urban forest using i-Tree Eco in Oslo**
- 4. Preliminary test of TEP Urban as platform for communicating urban ecosystem accounting data in Oslo**
- 5. Next steps**

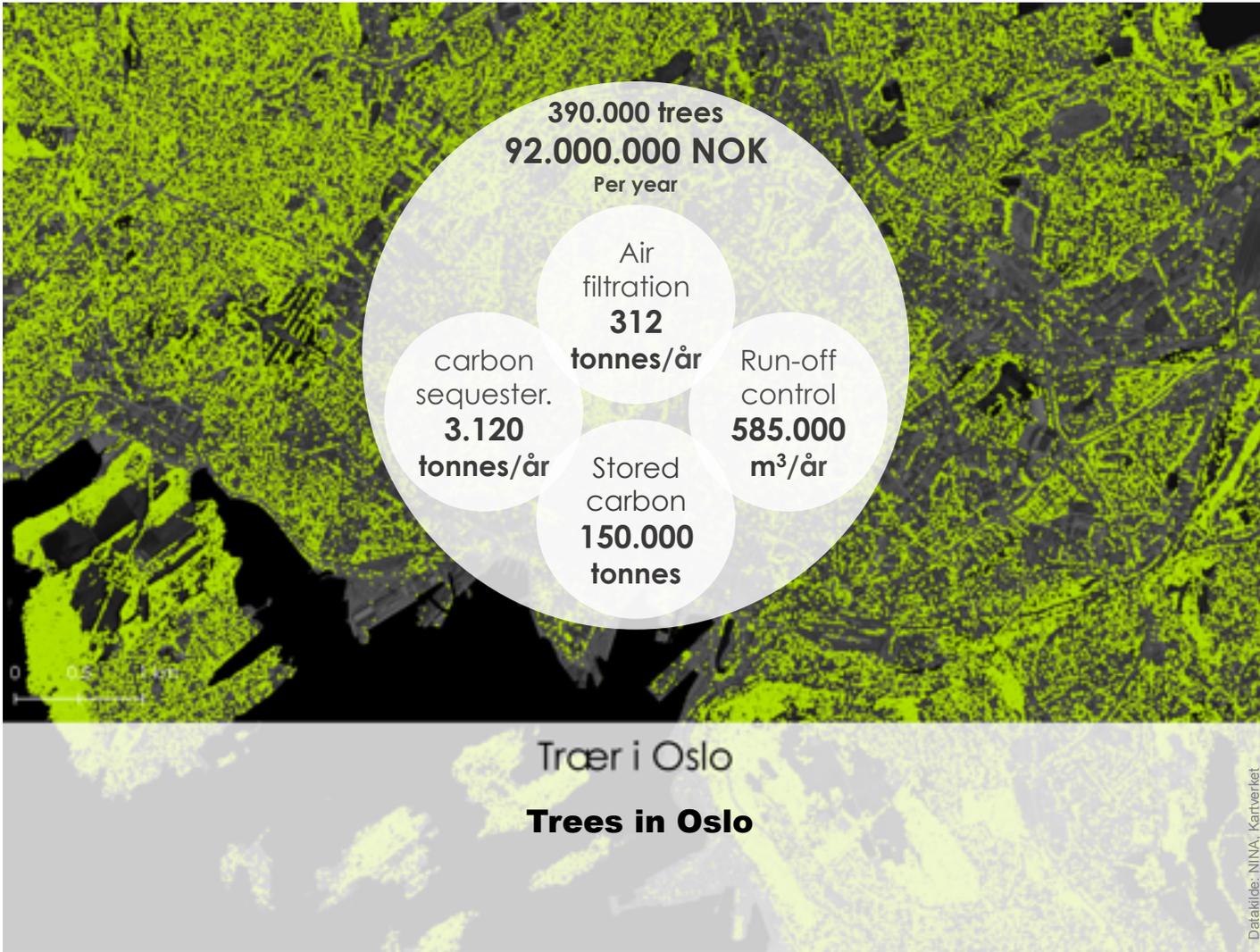
Valuation of urban trees using i-Tree Eco





Datakilde: NINA, Google





Contents

- 1. TEP Urban platform of the European Space Agency**
- 2. World Settlement Footprint**
- 3. Modelling regulating services of urban forest using i-Tree Eco in Oslo**
- 4. Preliminary test of TEP Urban as platform for communicating urban ecosystem accounting data in Oslo**
- 5. Next steps**

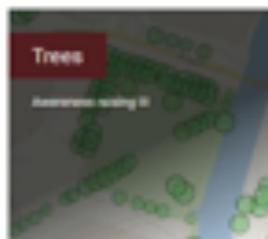
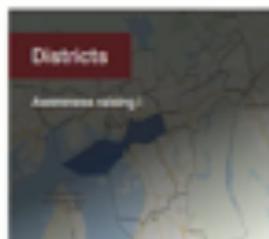


URBAN EEA

What is the value of urban nature in the Oslo area? URBAN EEA maps and values ecosystem services in the Oslo Region, and tests methods for ecosystem accounting at the municipal level.

The URBAN EEA project conducts research on ecosystem services from urban ecosystems in the Oslo Region, both green spaces in the built area and peri-urban nature areas. The project contributes to research and development on the UNs Experimental Ecosystem Accounting (EEA) and its application to urban areas. URBAN EEA aims to develop ecosystem accounts for the Oslo area providing lessons for other Norwegian municipalities.

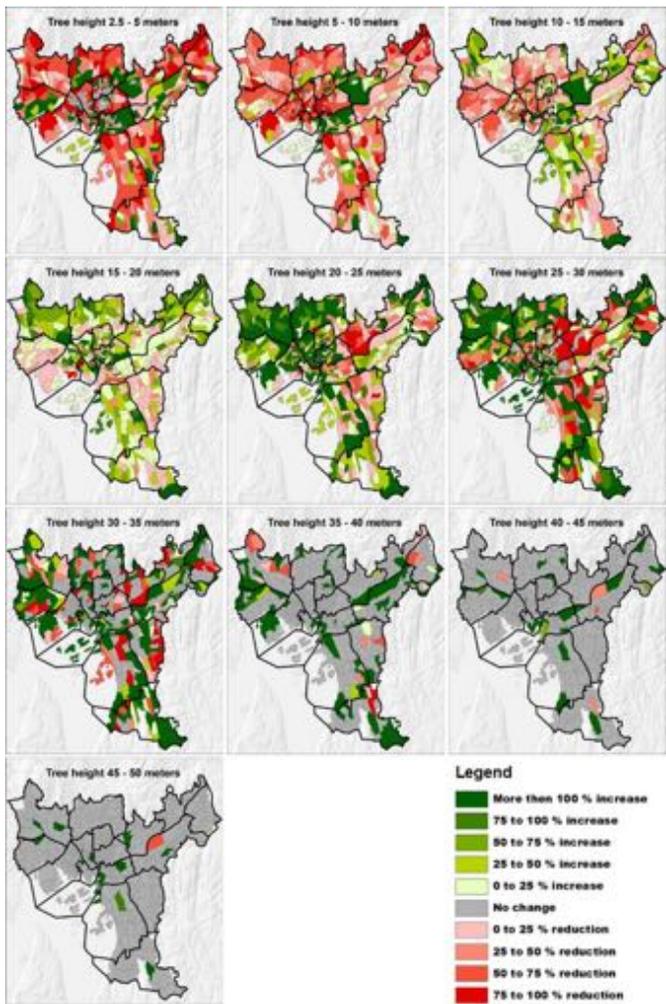
Read more: <https://www.una.no/english/fields-of-research/Projects/Urban-EEA>



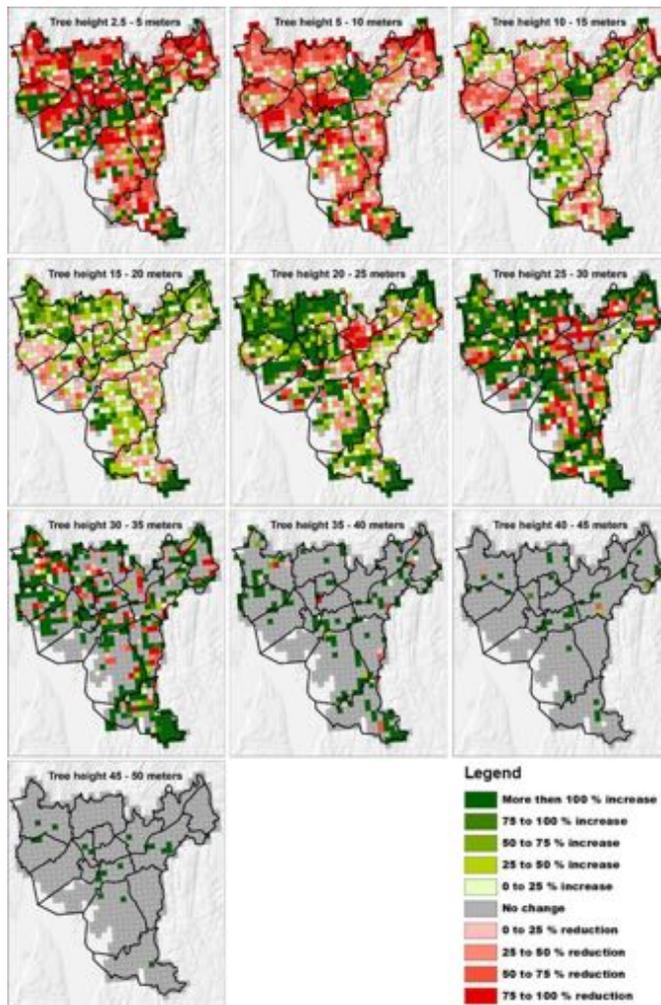
Contents

- 1. TEP Urban platform of the European Space Agency**
- 2. World Settlement Footprint**
- 3. Modelling regulating services of urban forest using i-Tree Eco in Oslo**
- 4. Preliminary test of TEP Urban as platform for communicating urban ecosystem accounting data in Oslo**
- 5. Next steps – explore compilation alternatives**

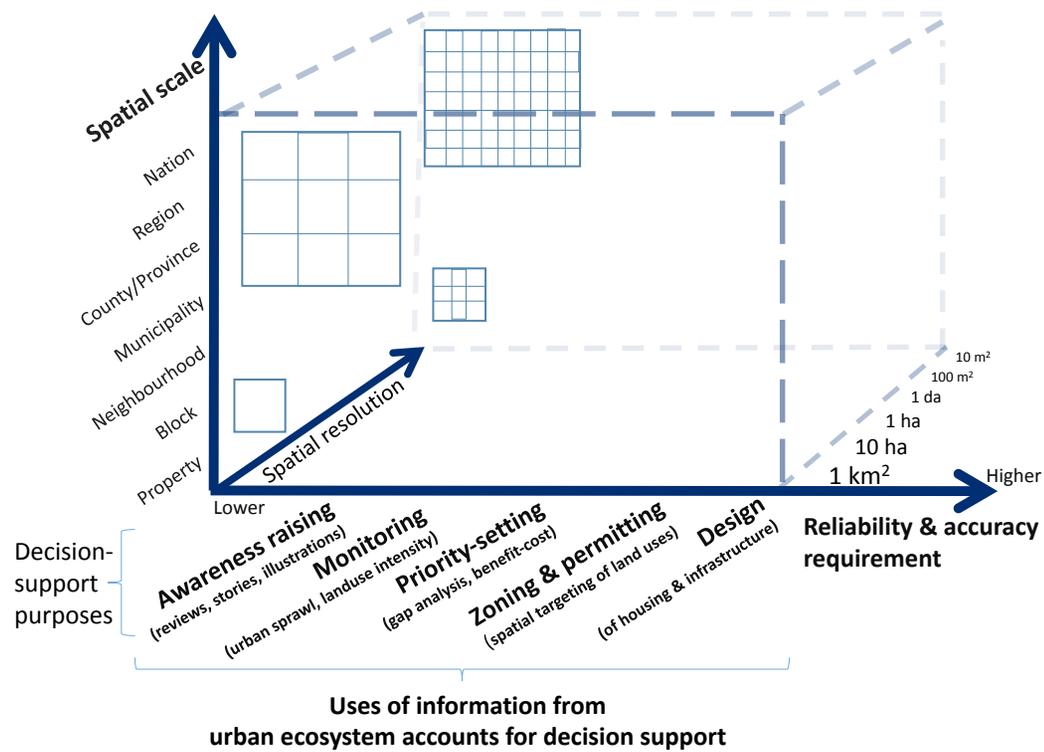
Administrative units



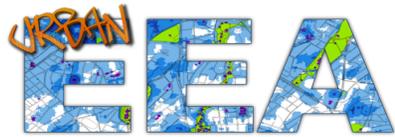
Grids



Next steps: demonstrate uses of ecosystem accounting data for different municipal decision support purposes



Source: adapted from Gomez-Baggethun and Barton (2013)



Thank you



Photo: David N. Barton