



Ministry of Smart  
Administration and Regional  
Development  
Republic of Latvia

## LIFE LATESTadapt

workshop

"Urban green space and heat island mapping and monitoring with satellite data"

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REPUBLIC OF ESTONIA  
MINISTRY OF CLIMATE

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# Why Talk About Satellite Data?

Satellite data turns complex urban dynamics into actionable insights for better planning.

Provides both a **big-picture overview** and **fine-scale detail**, helping cities plan greener, more climate-resilient futures.



**Image source:** HeIGIT – LAVerDI Project: *Integrating OSM and Satellite Data for Landscape Monitoring.*

Available at: <https://heigit.org/laverdi-project-integrating-osm-and-satellite-data-for-landscape-monitoring/>



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# Why Satellite Data Matters For Urban Development



## Consistent, city-wide visibility

Earth observation offers an unbiased view of landcover, vegetation, surface temperature, and urban form—at metropolitan scale.



## Accessible for everyday decisions

Programs like Copernicus provide free, regularly updated data—lowering barriers for municipalities, planners, and researchers.



## Sustainable development

Cities can prioritise sustainable growth, ensuring that urbanisation doesn't come at the expense of ecological health.



## Long-term change + shared language

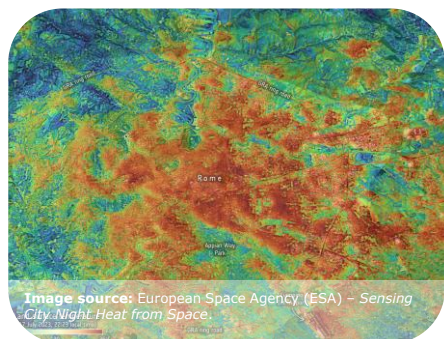
Decades of observations reveal trends early and create clear maps that align planners, scientists, health teams, and policymakers.



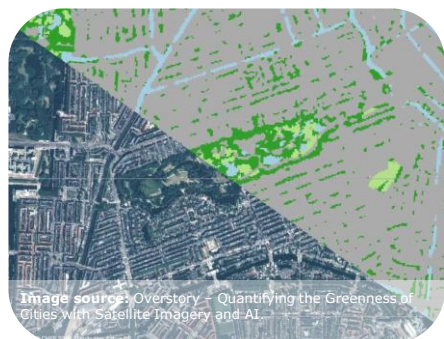
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# Satellite Data for Urban Greening

Satellite data is particularly powerful when:



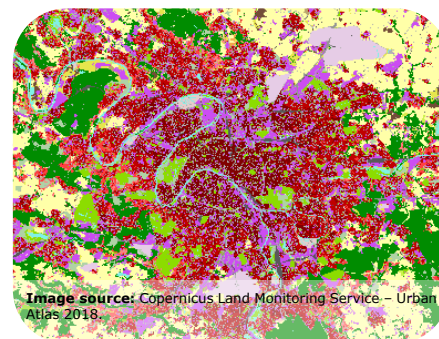
Monitoring  
heat  
islands



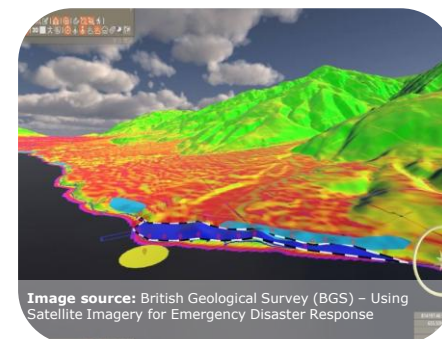
Assessing  
green  
space  
health and  
stability



Detecting  
small  
vegetation  
patches



Land cover  
classification

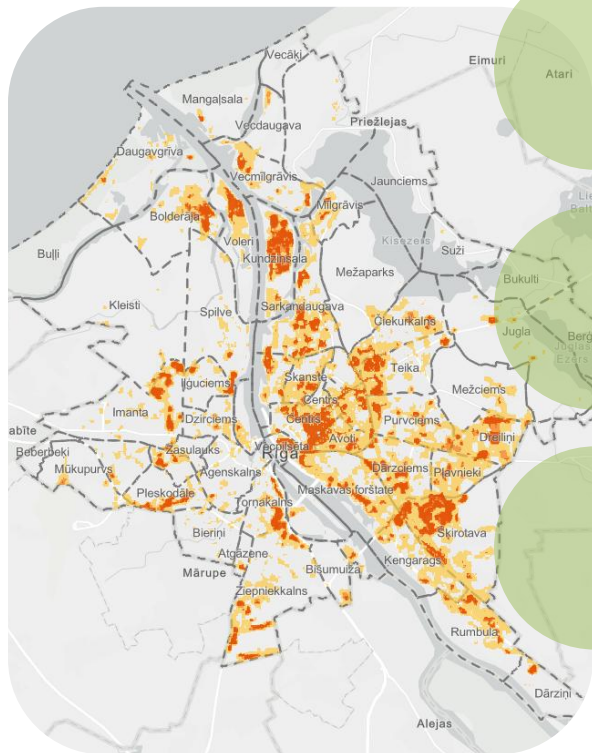


Disaster  
preparedness  
and response



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# Today's Workshop: What We Will Explore



the newest satellite-data-based  
tools for monitoring urban green  
spaces and urban heat islands

explore examples from Europe  
and beyond

opportunity to work hands-on with  
freely available Earth observation  
datasets



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