

Satellite data use cases to support sustainable development



Institute for
Environmental
Solutions

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Institute for Environmental Solutions - overview

- Privately established research and innovation institution
- Multi-disciplinary team where scientists meet practitioners (organic farming, sustainable forestry, natural resource monitoring)
- Earth Observation / Remote Sensing are key focus techniques for the development of data-based environmental solutions
- Working in close collaboration with potential end-users and practising rapid prototyping

Agricultural test fields



Located near an airfield

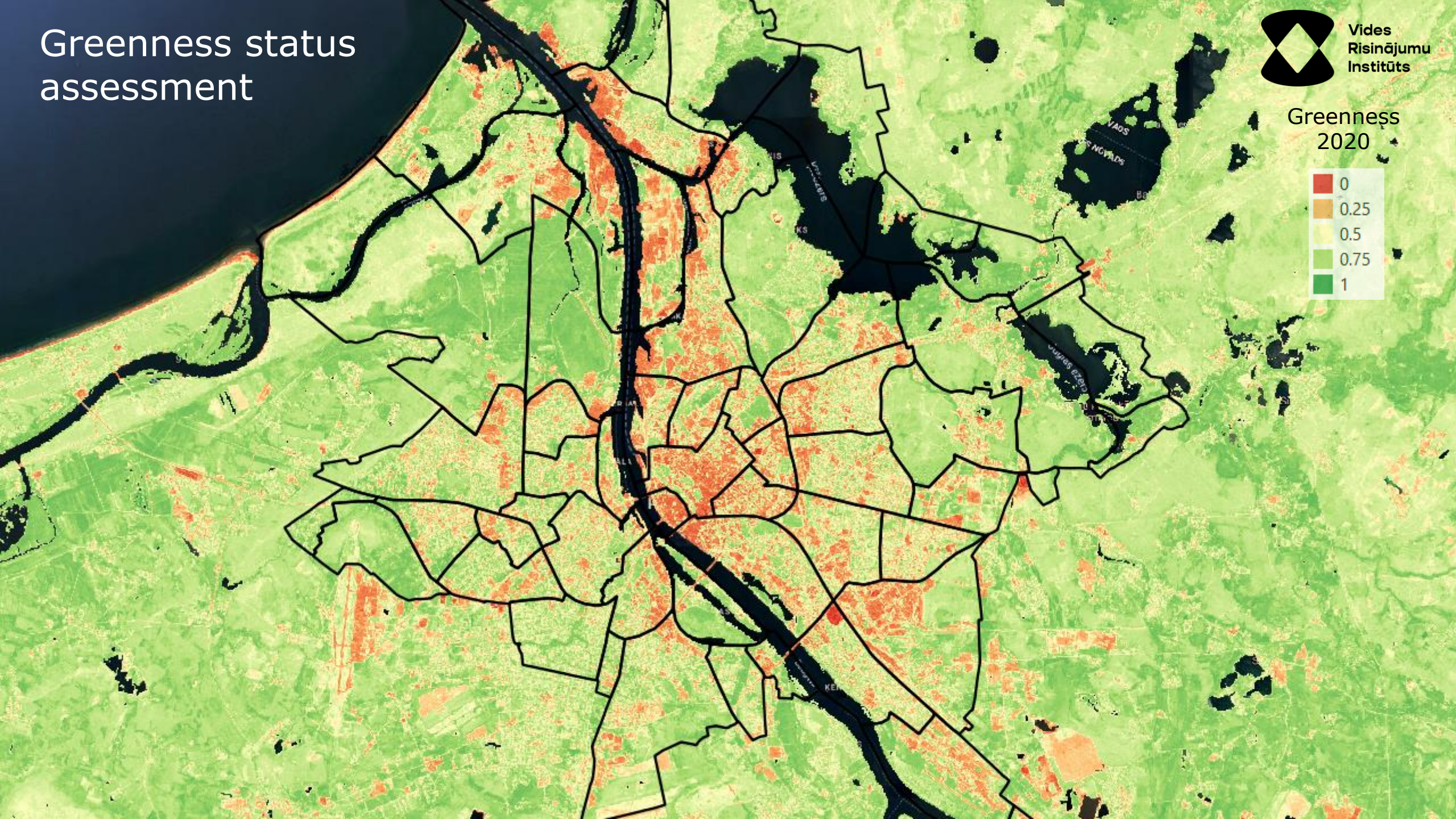
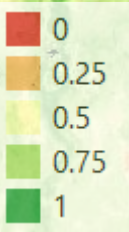


Flying laboratory



Greenness status assessment

Greenness
2020

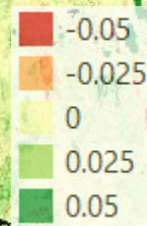


Greenness change tracking



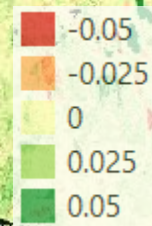
Vides
Risinājumu
Institūts

Greenness
change
2016-2020

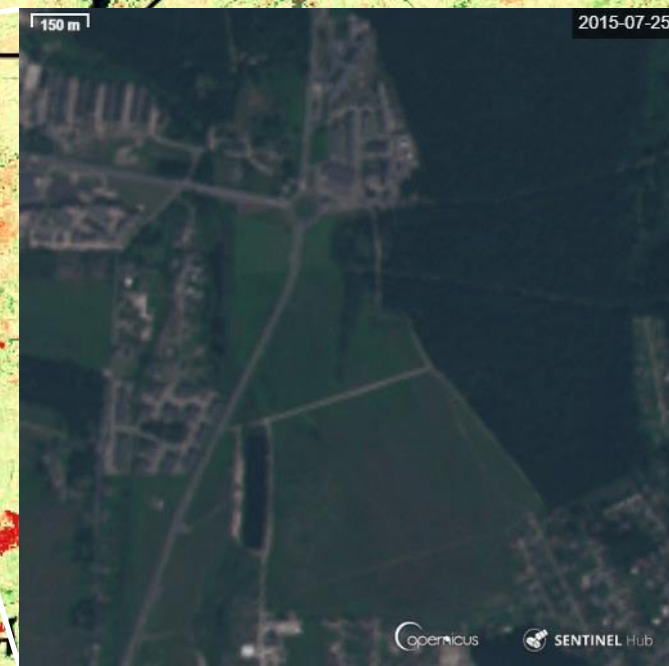
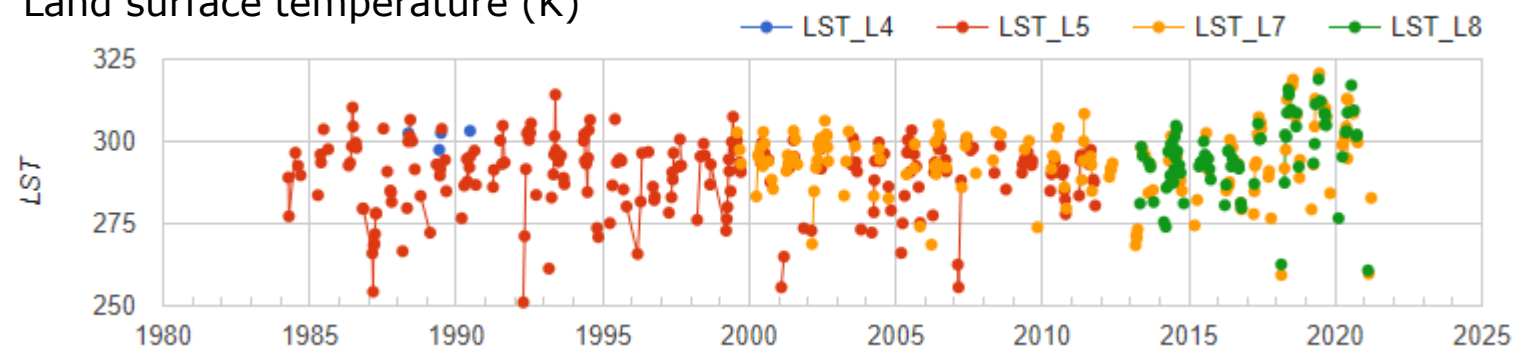


Greenness change tracking

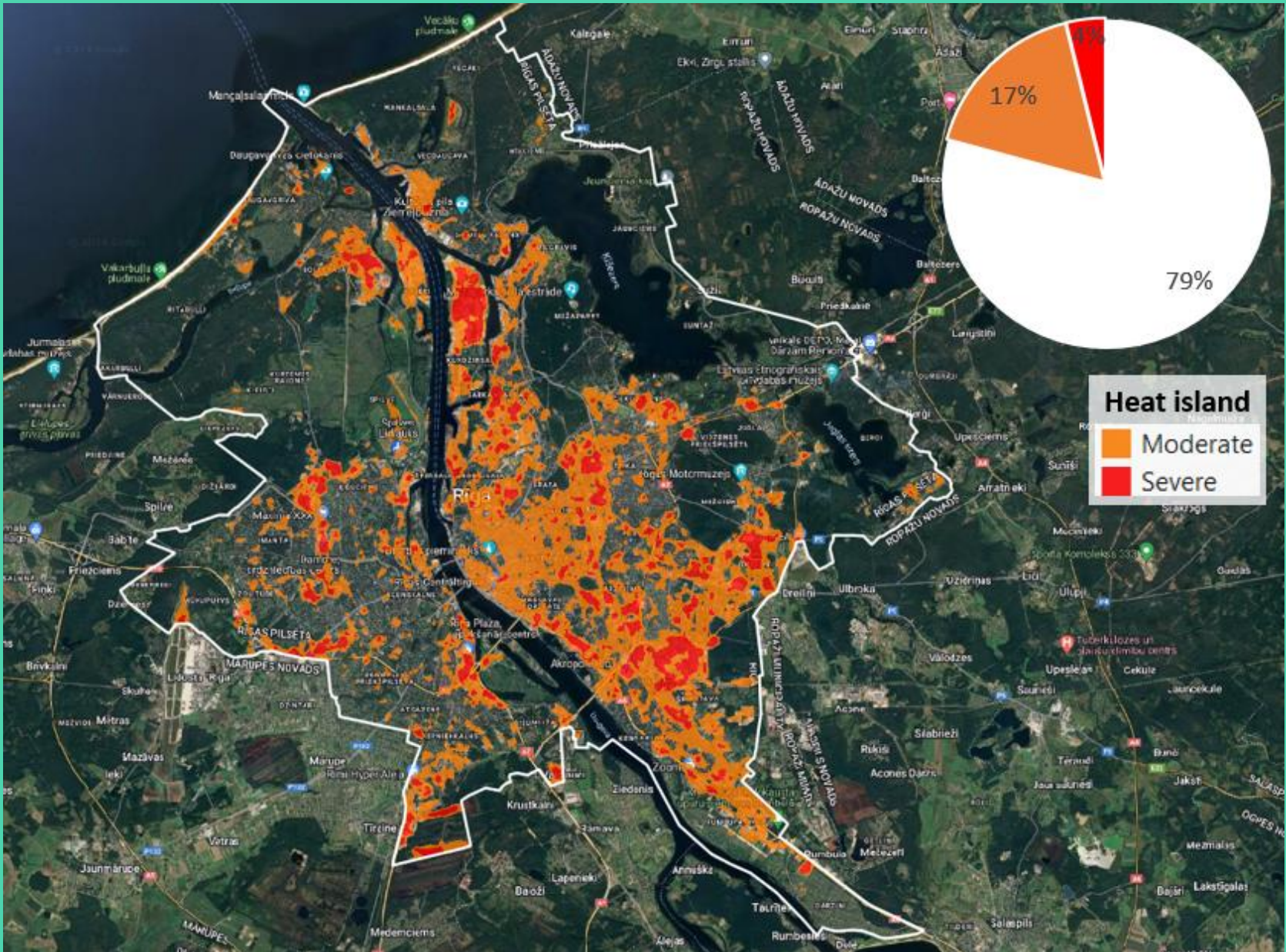
Veģetācijas
indeksa izmaiņu
intensitāte



Land surface temperature (K)

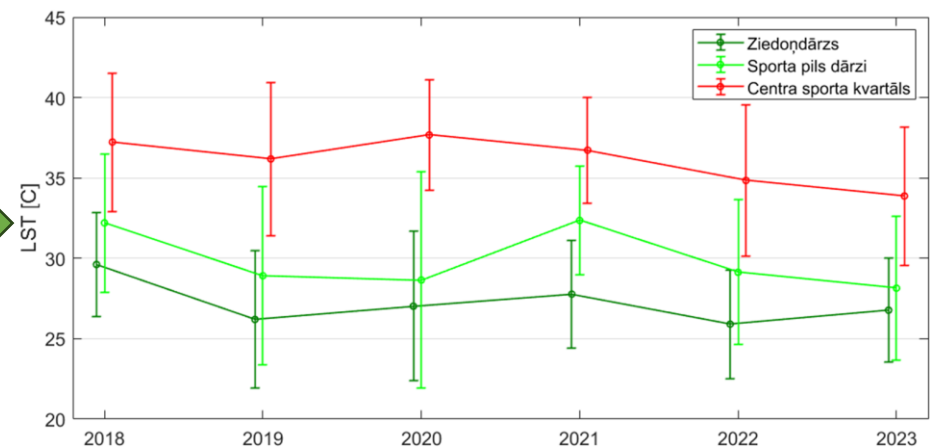
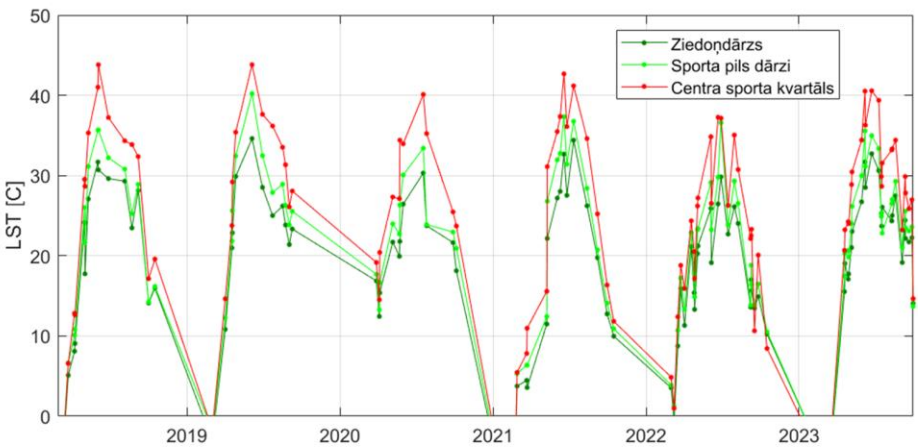
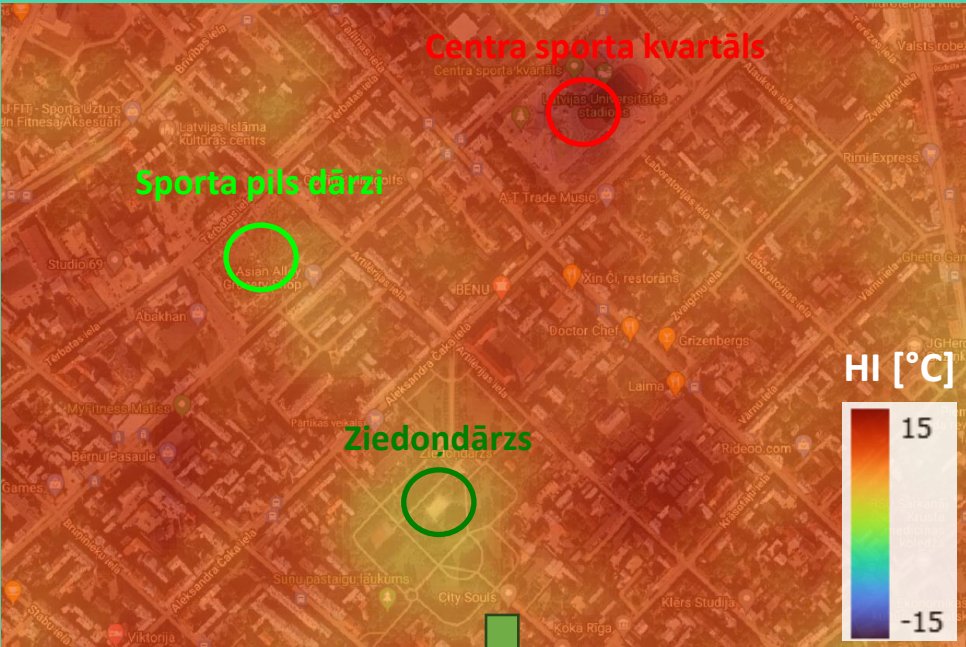


Heat island mapping from satellite data



Heat island mapping from satellite data

Land surface temperature monitoring in specific points of interest



SentiCheck

Sentinel data-based service for remote monitoring of subsoil use and detection of possible illegal mining



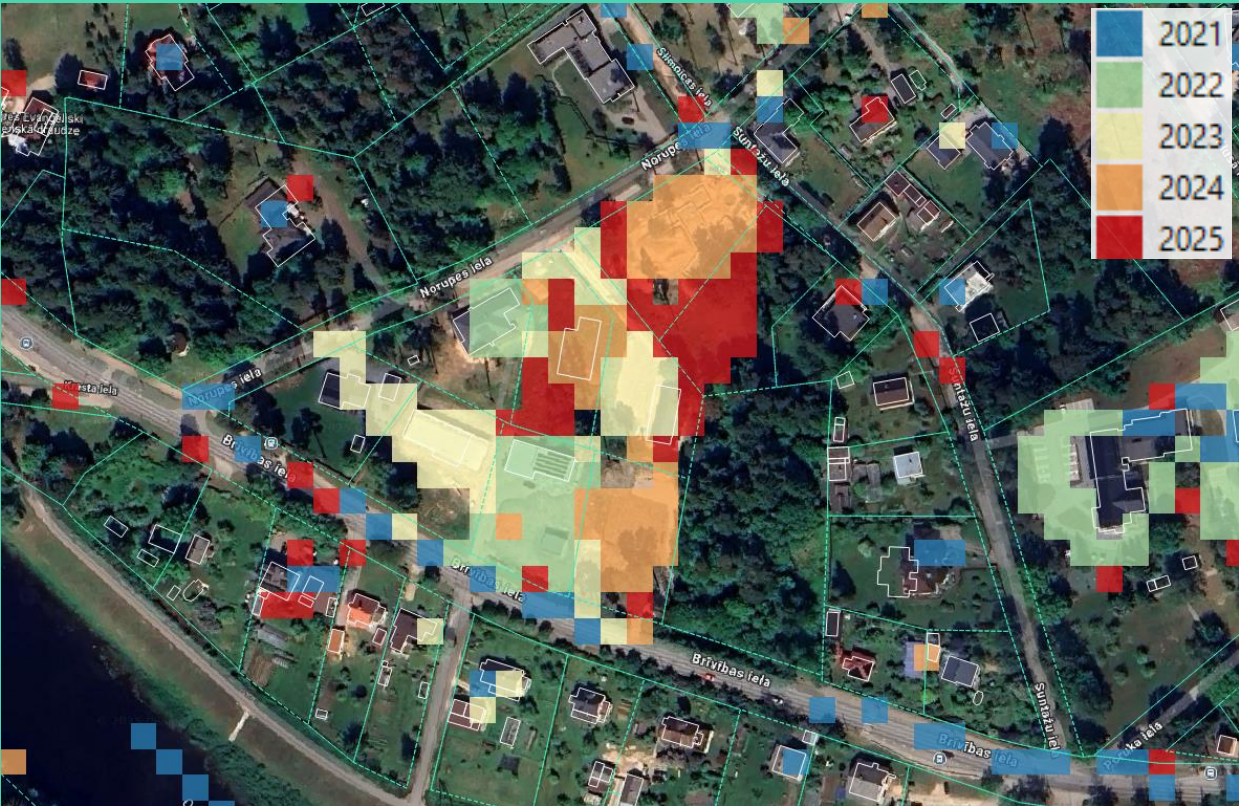
Remote monitoring of construction activities combining Sentinel and VHR satellite data

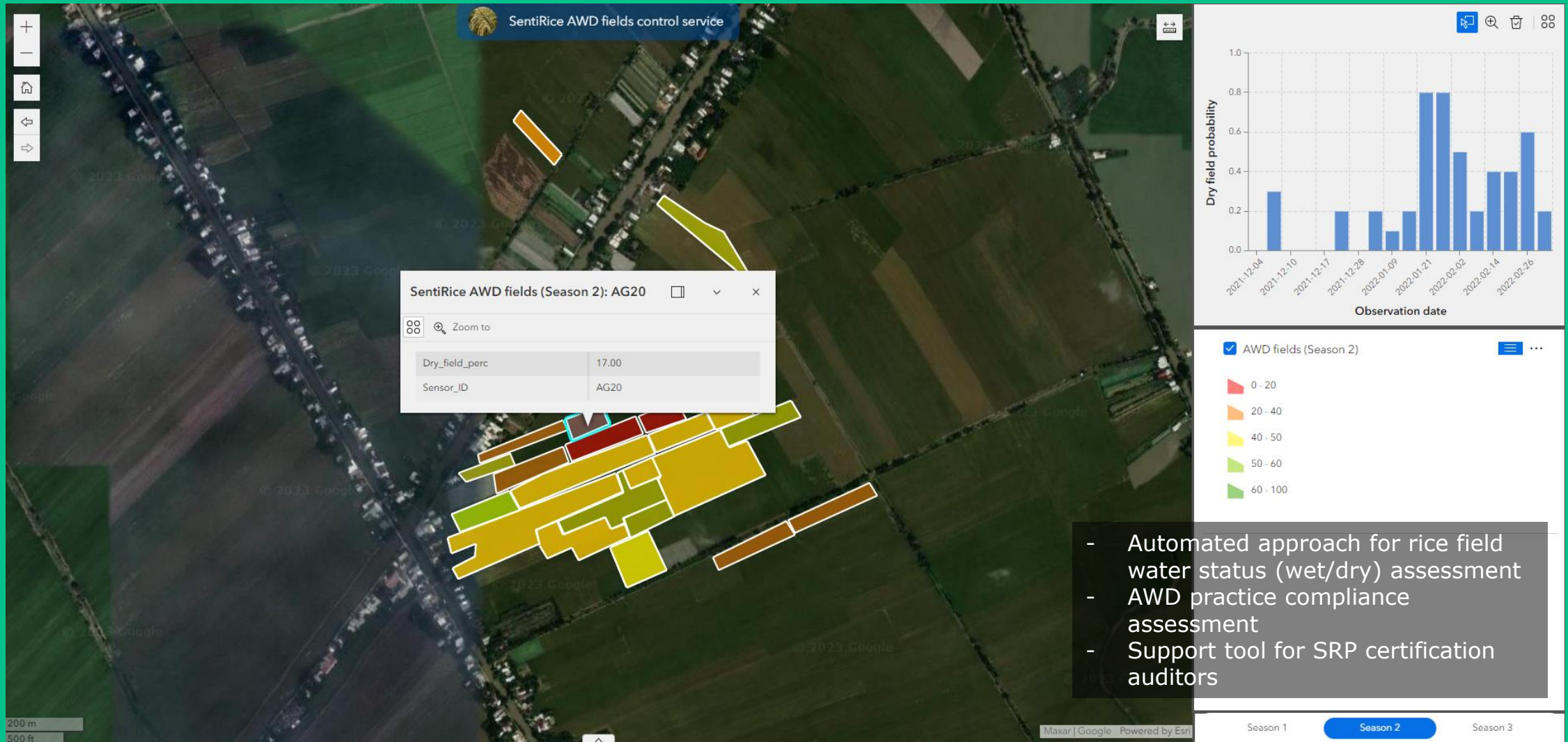


Building detection from VHR remote sensing data



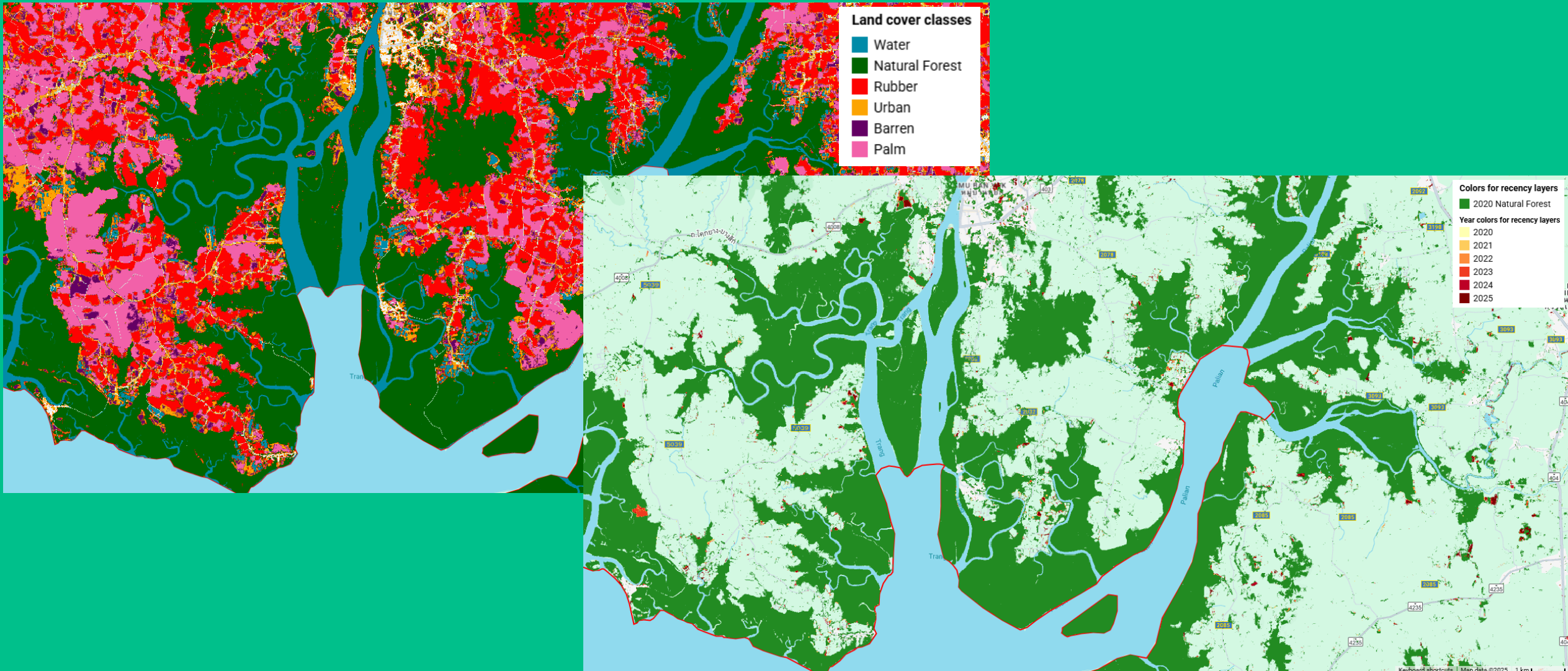
Land cover change tracking from Sentinel satellite data





Monitoring of rice fields in the Mekong Delta (Vietnam)

Mapping of land cover and tracking deforestation activities in Thailand





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