



Composite index - Environmental and Community Observation System (ECOS)

TEAM NSI ROMANIA:

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European Big Data Hackathon 2025

Earth Observation: from Space to European Statistics

Brussels, 6-11 March 2025

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Main characteristics

- A country score through an **yearly composite index**, also available at **NUTS2 and NUTS3 levels**, used as a prototype for ranking regions and countries through a subset of proxy SDG targets indicators.
- Serves as a valuable tool for statistical communication by **transforming complex phenomena into a simplified index** ranging from 0 to 1.
- **Applied for:**
 - 2 countries : BELGIUM, ROMANIA
 - 2 years: 2019, 2020**Replicable** for other countries and years.



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Data used for ECOS

SDG Target	Component indicator	Source
Target 15.1: By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements	Forest coverage	Sentinel 2: Land services, including the monitoring of vegetation, soil and water cover, as well as the observation of inland waterways and coastal areas
Target 11.7: By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities	Normalized Difference Vegetation Index (NDVI)	
Target 11.b By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels	Normalized Difference Built-Up Index (NDBI)	
Overall SDG Agenda	Population	GlobPOP: A 33-year (1990-2022) global gridded population dataset generated by cluster analysis and statistical learning



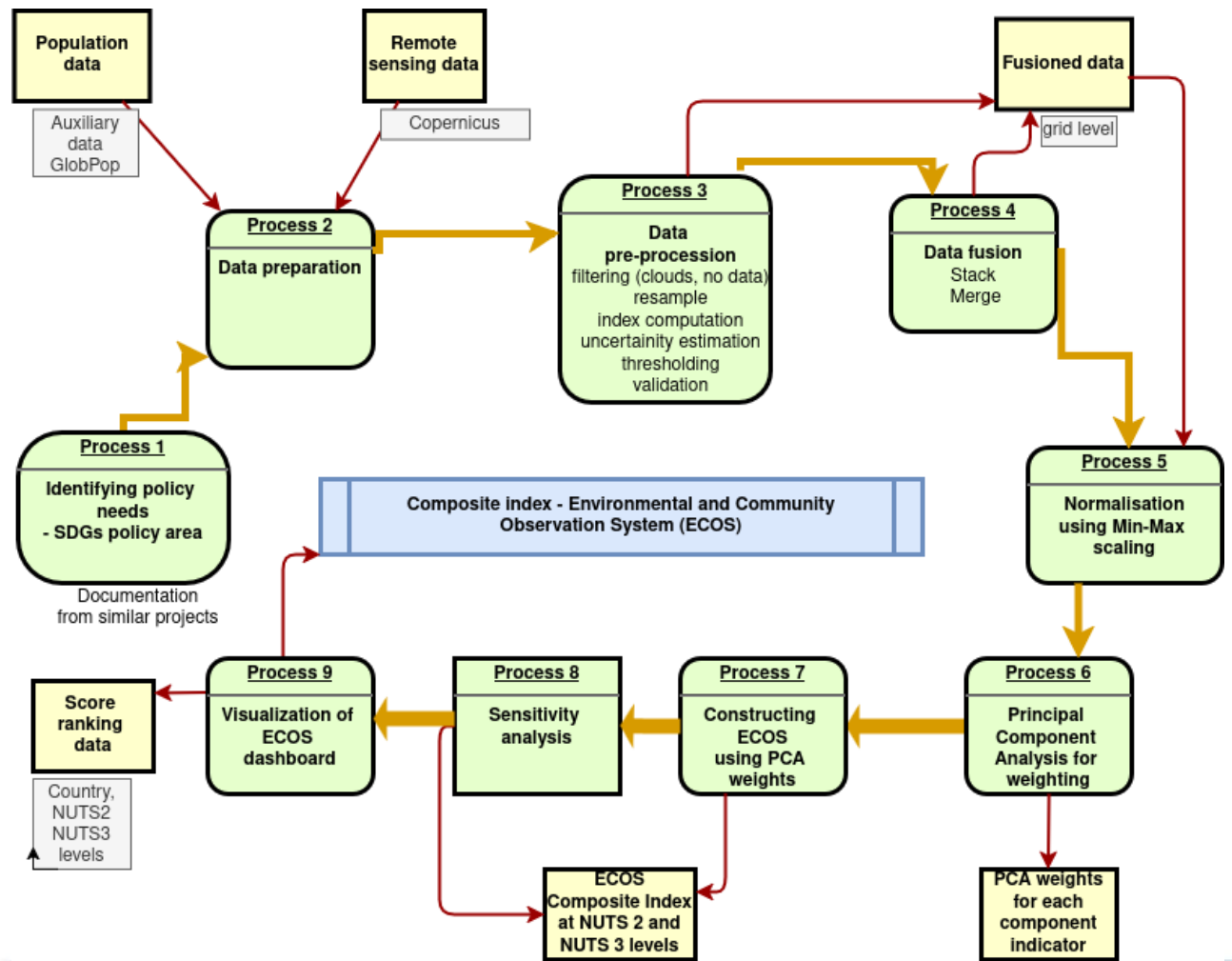
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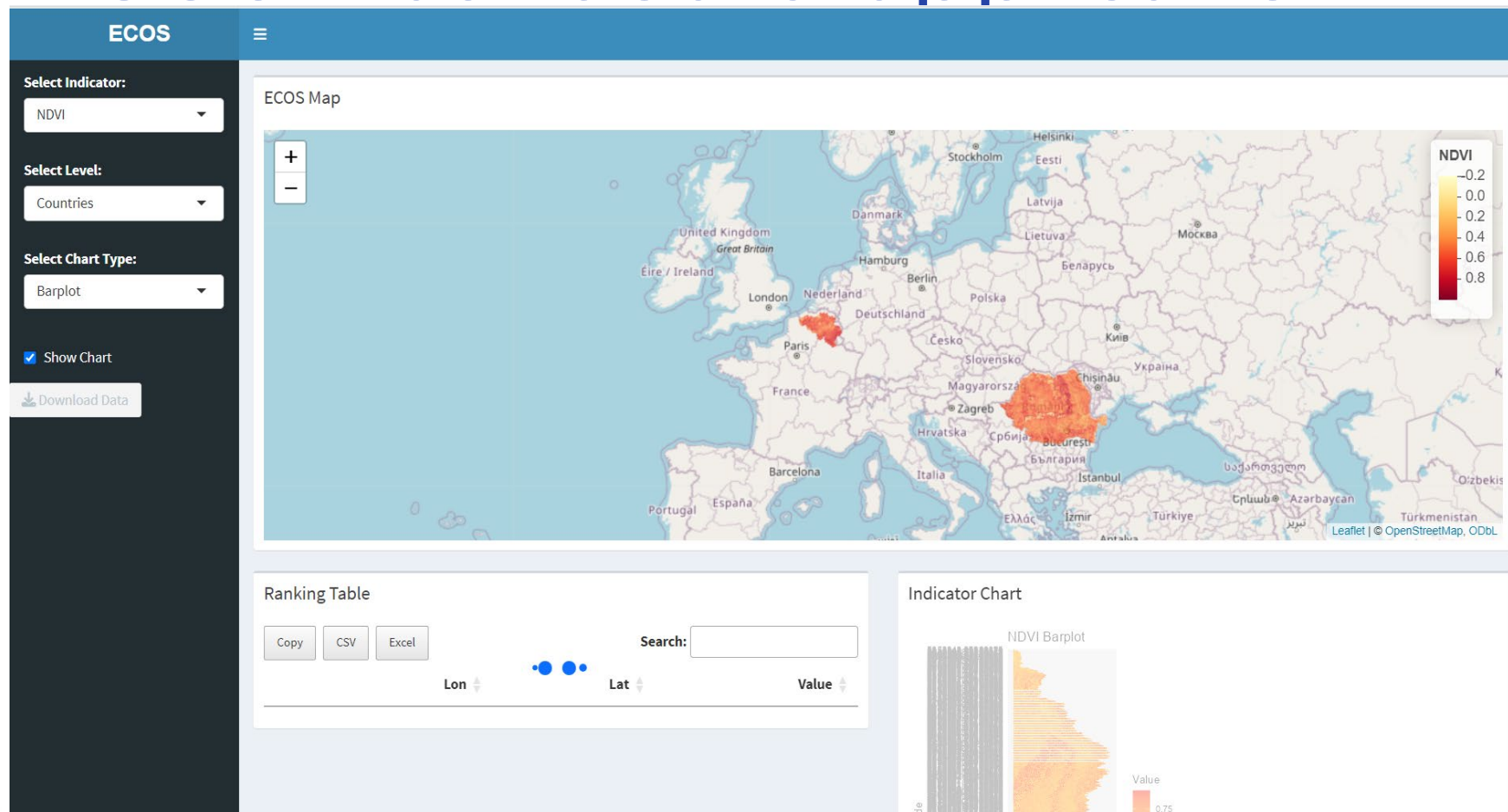
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Workflow



ECOS Dashboard application



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Thank you!



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