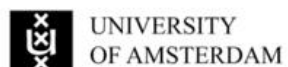


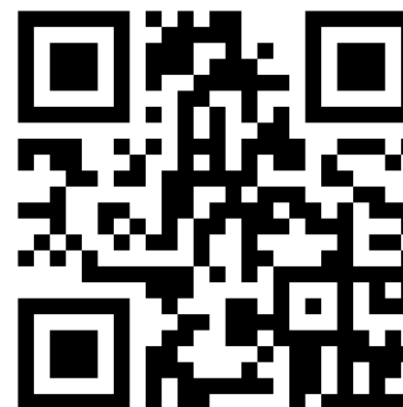


Towards an EU wide framework for monitoring biodiversity

Ruben Van De Kerchove et al.



This project receives funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101007492.



ATHENS 7-9 DECEMBER 2022

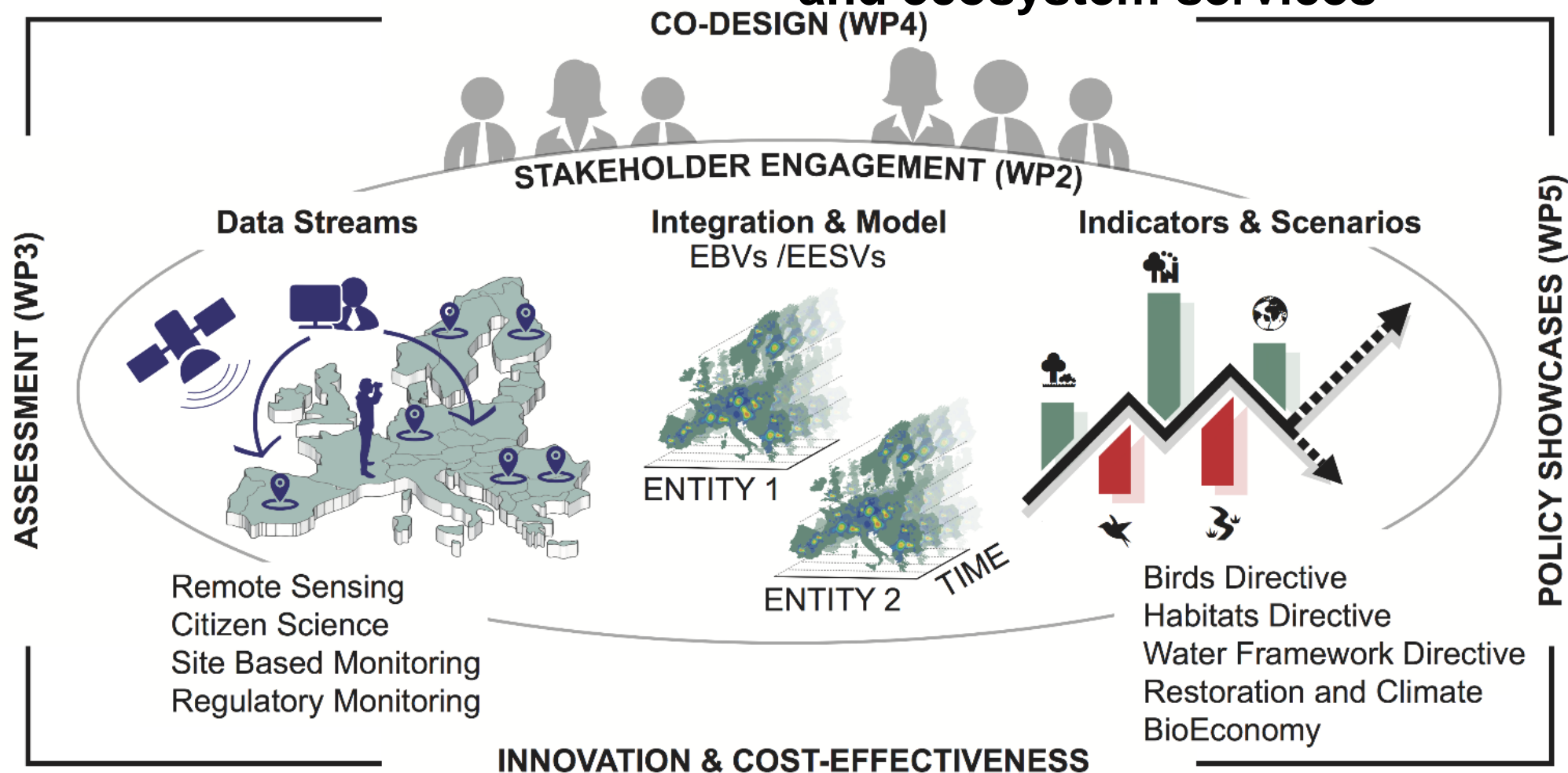


The EuropaBON project



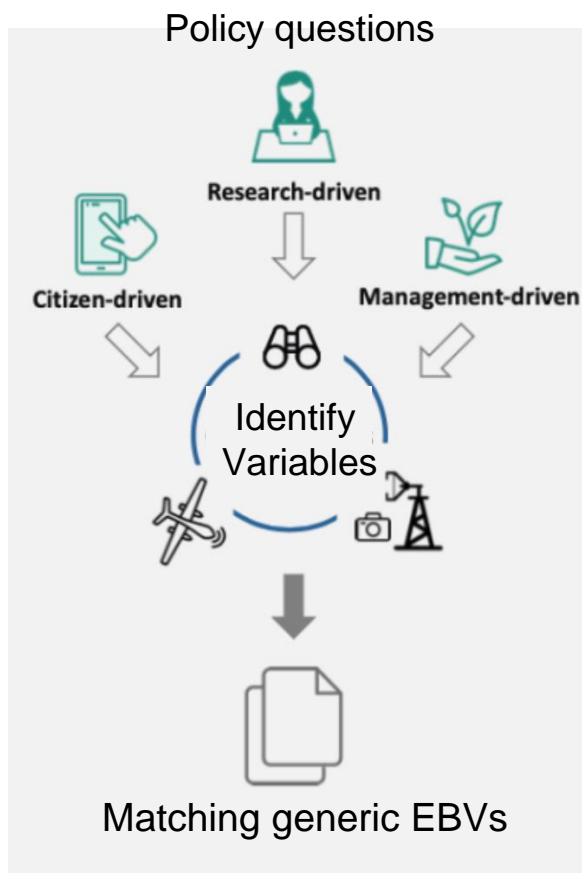
Horizon 2020
Programme

The action should design an **EU-wide framework for monitoring biodiversity and ecosystem services**

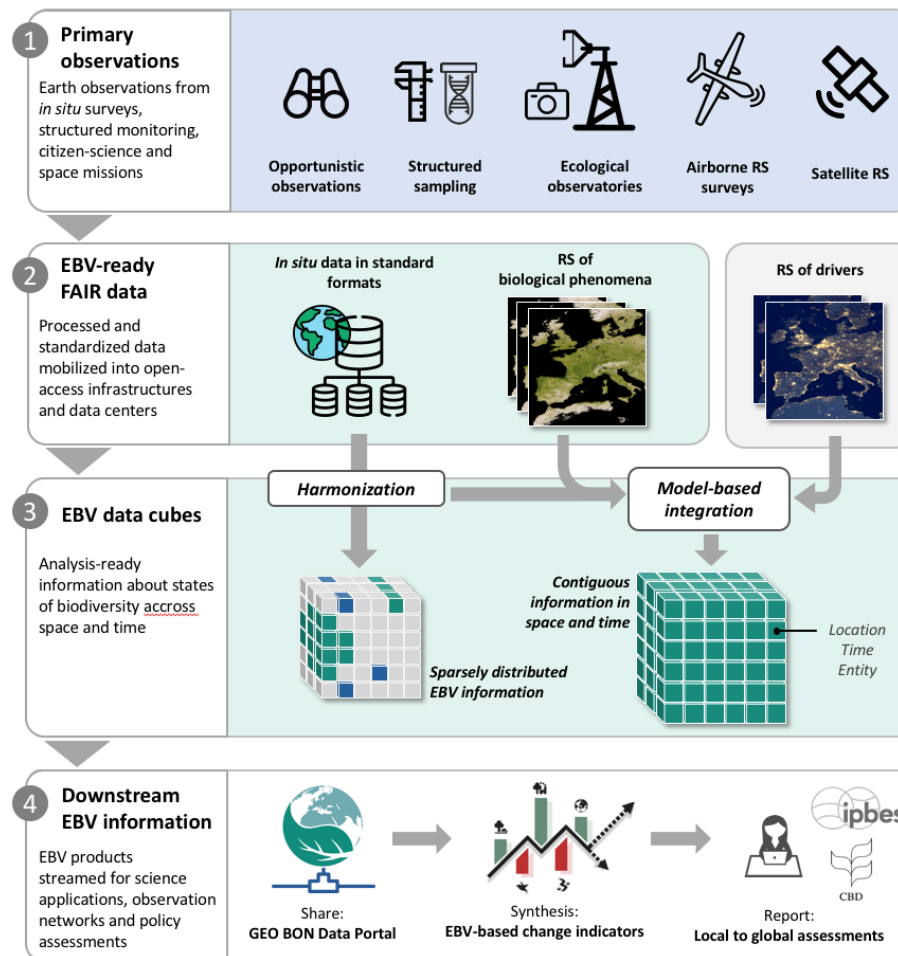


Designing an European Biodiversity Monitoring Framework

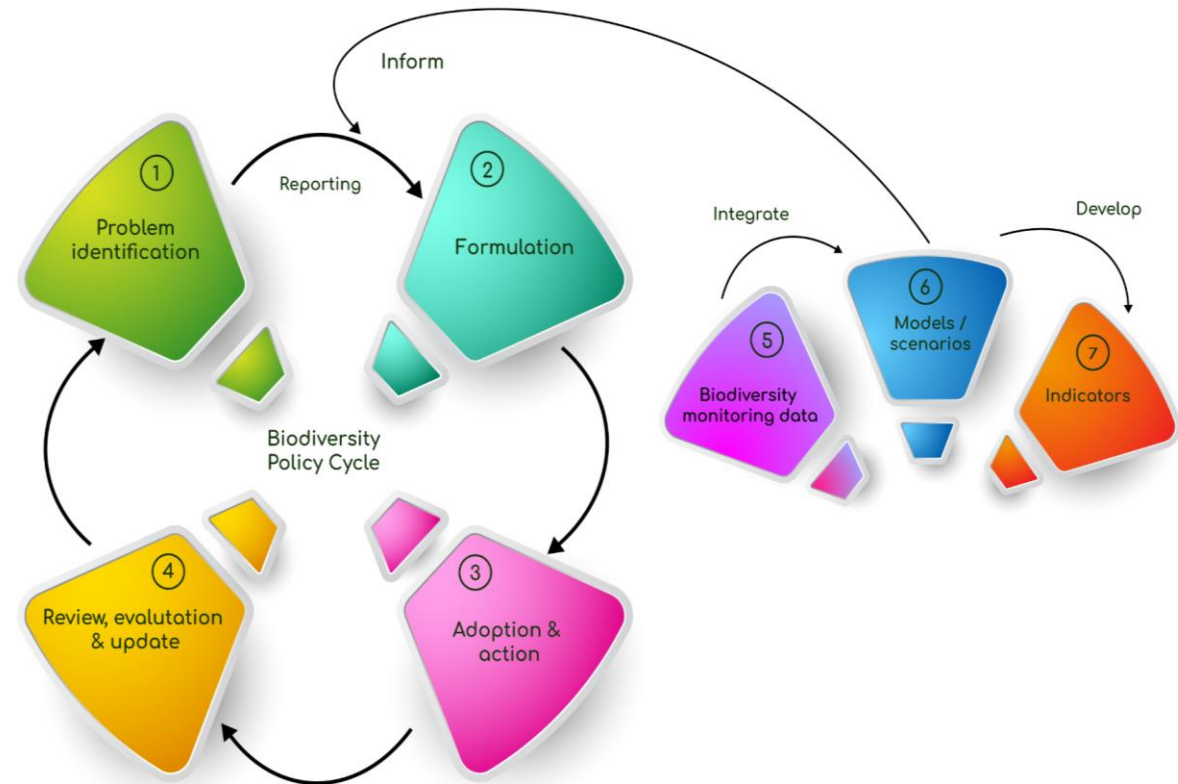
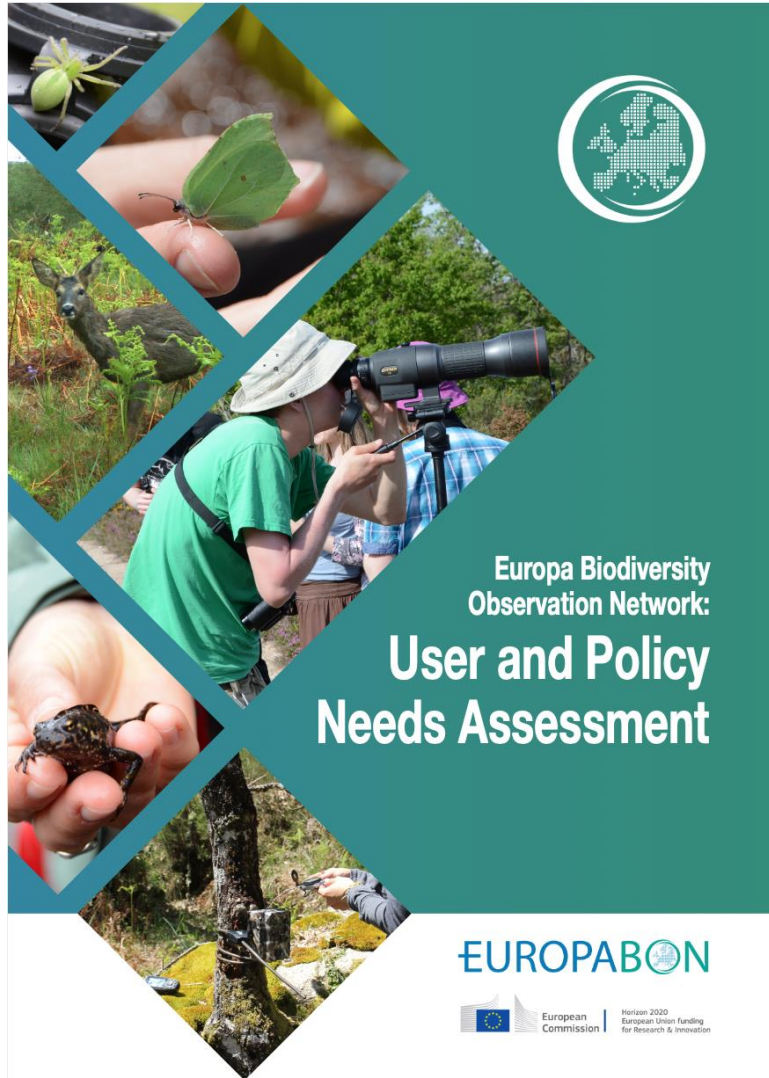
EBV Selection



EBV Workflow Design



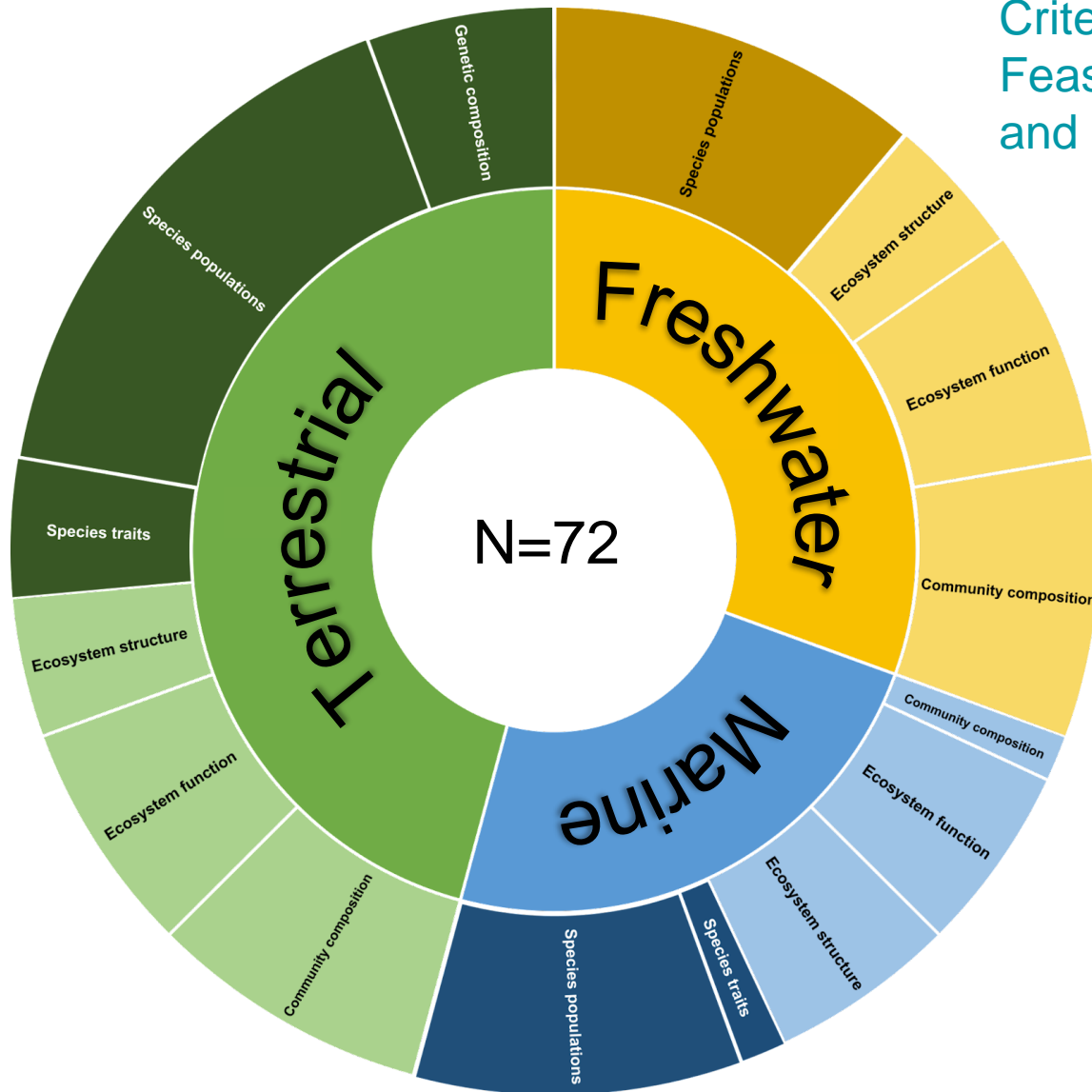
User needs assessment: understand biodiversity data in the policy cycle



An overview of the proposed EBV list

Criteria:

Feasibility, policy relevance, balance across taxa and realms, complementarity, irreducibility



Species level variables mostly addressing questions **about status of species of conservation interest** (Habitats, Birds Directives), and some species groups for which enough interest exists.

Ecosystem level variables mostly addressing questions about **trends in ecosystem condition and restoration**, across a range of taxonomic groups

Some species level variables and some ecosystem level variables important to estimate **ecosystem services, risks, and status of invasive species**

The EuropaBON showcases



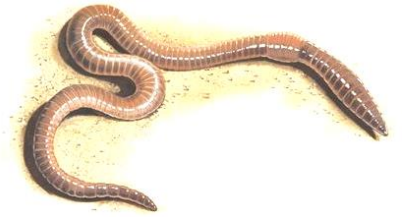
Birds



Habitats



Water



Soil

Networks



Data curation



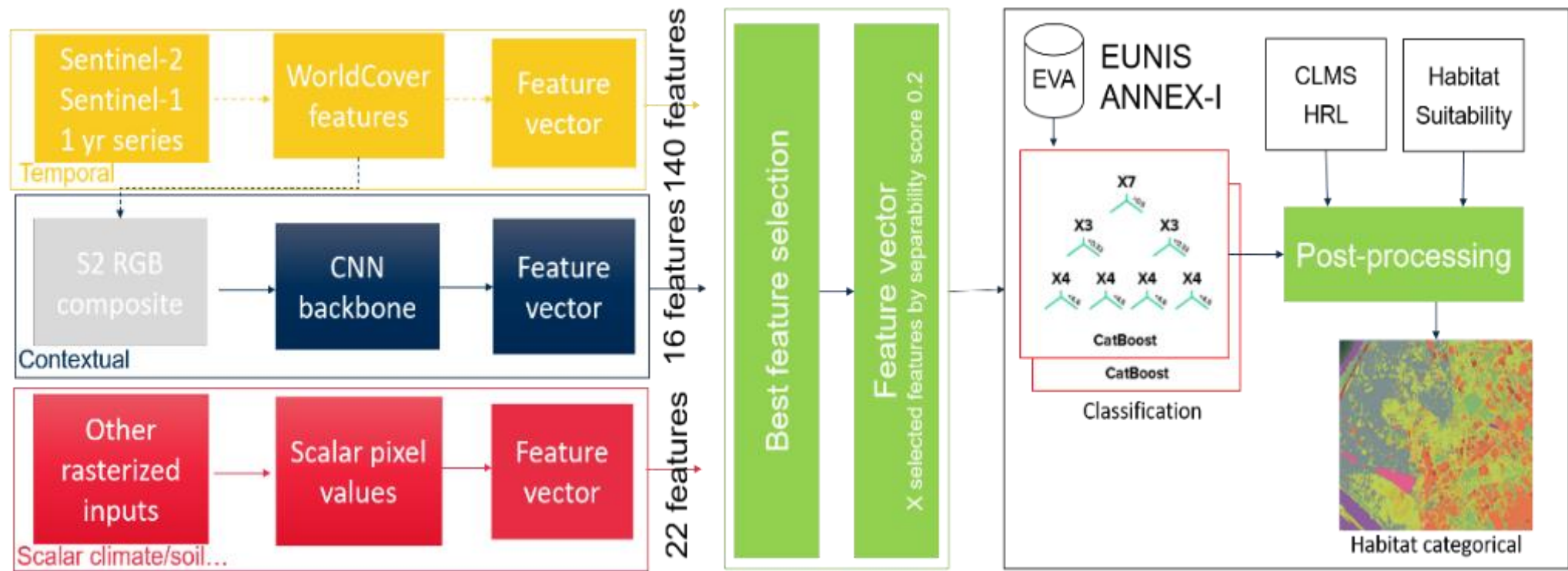
Data accessible



Open data



Habitats - AI automated, scalable workflow



Extend standard predictors (22 features) with

- Full time-series high-res EO features (140)
- Contextual features (16) through Conventional Neural Networks (CNN)

Regional optimization to train & classify

- Selecting best features per region
- Catboost ML for habitat class probabilities
- Post-processing to select 'final' habitat class

THANK YOU

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