

Challenges in implementing ecological corridors in practice and a project proposal to address them

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The Dinaric-Balkan-Pindos
Large Carnivore Initiative

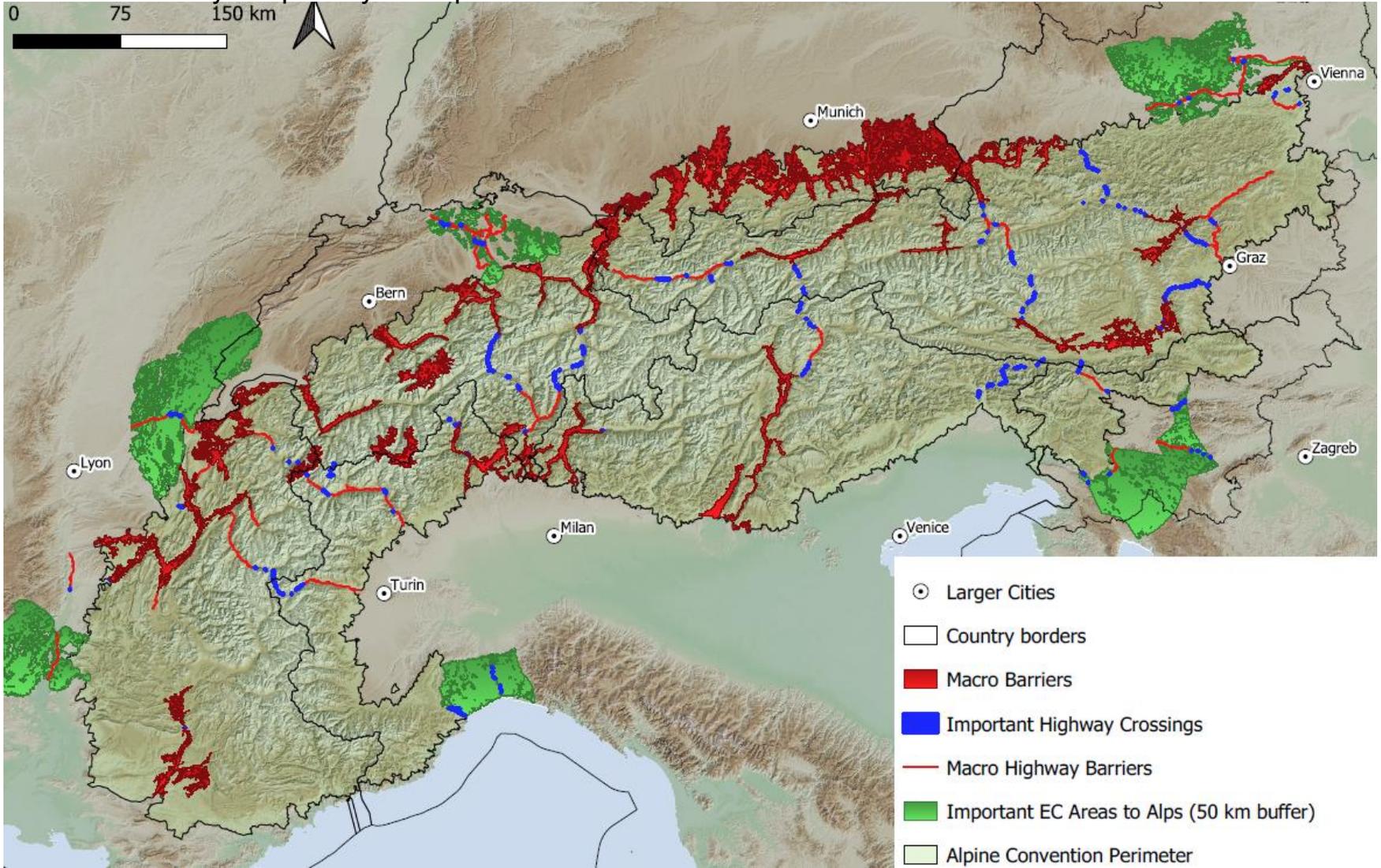


Zavod za gozdove Slovenije
Slovenia Forest Service

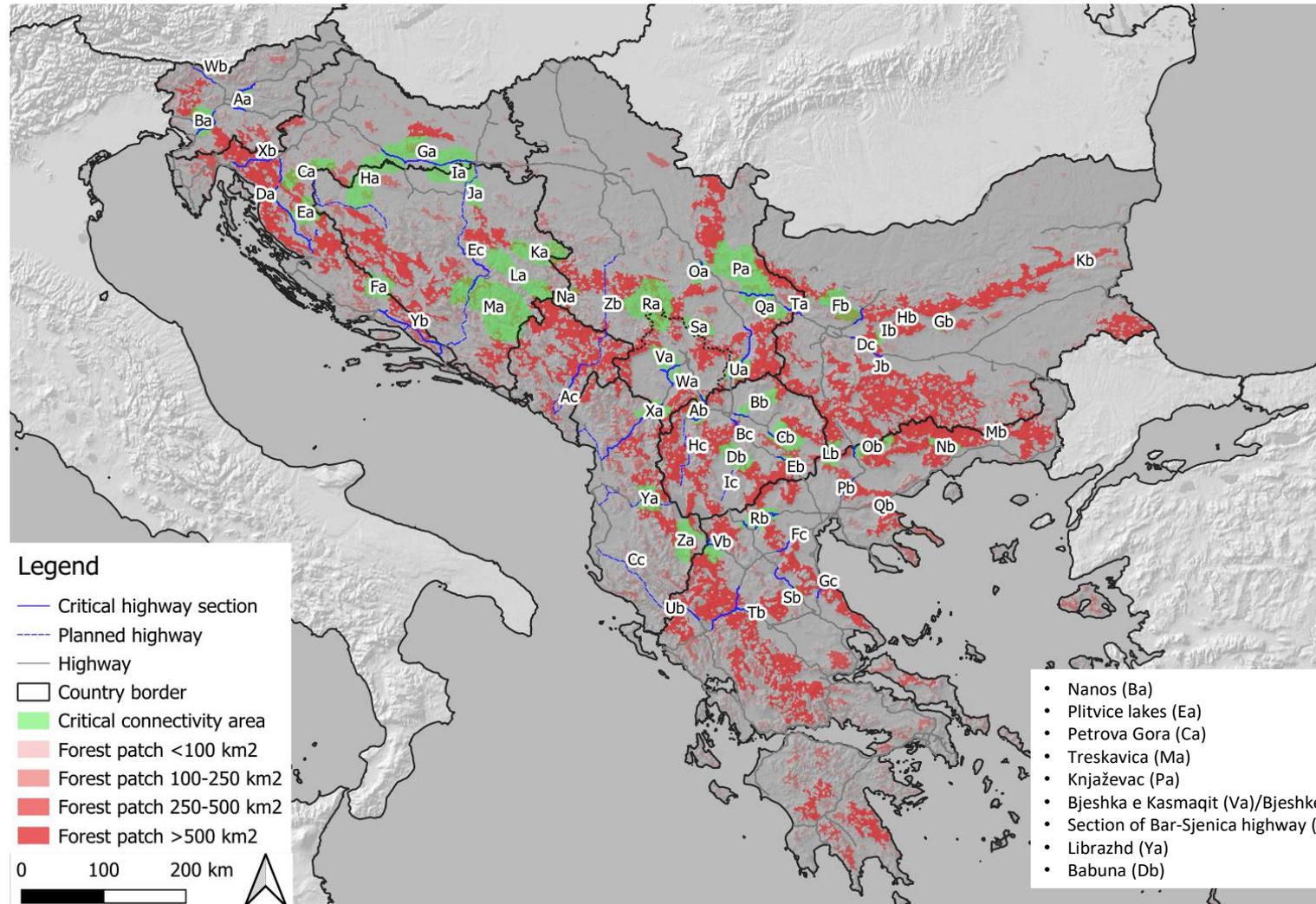


Connectivity

International study adopted by the Alpine convention



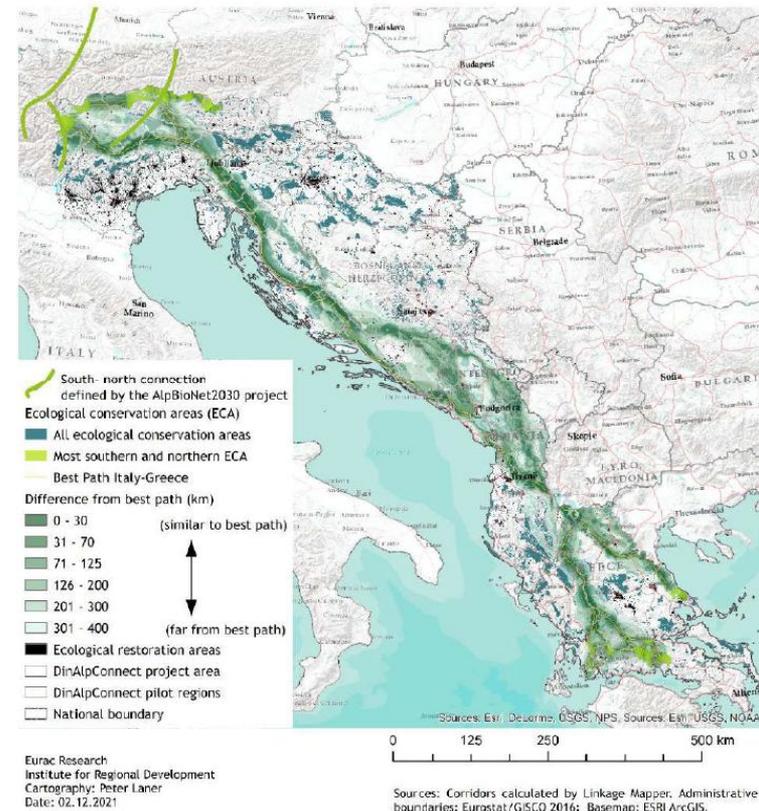
RESULTS OF DETAILED ANALYSIS IN CHOSEN PILOT AREAS AFTER CONSIDERATION BY LOCAL EXPERTS



MANY STUDIES ADDRESSING CONNECTIVITY INCLUDE SLOVENIA

- Laner & Favali 2022 DINALPCONNECT - Report on ecological connectivity assessment
- Javornik et. all. 2022 Alpine convention - Landscape connectivity for arge carnivores and wild ungulates in the Alps
- Penko Seidl et. all. 2021 CRP project - Ecological Corridors at the National Level in Slovenia as a Support for Spatial Development Planning and the Management of Nature and Other Resources – Final Report (in SLO)
- Potočnik et. all. 2024 LIFE Lynx project - Baselines for Establishing meta-population connectivity of Eurasian lynx populations in the Alps, Dinarics and Balkan
- Recio et all. 2018 LIFE DINALP BEAR project - Analysis of spatial connectivity and preparation of environmental impact assessment guidelines

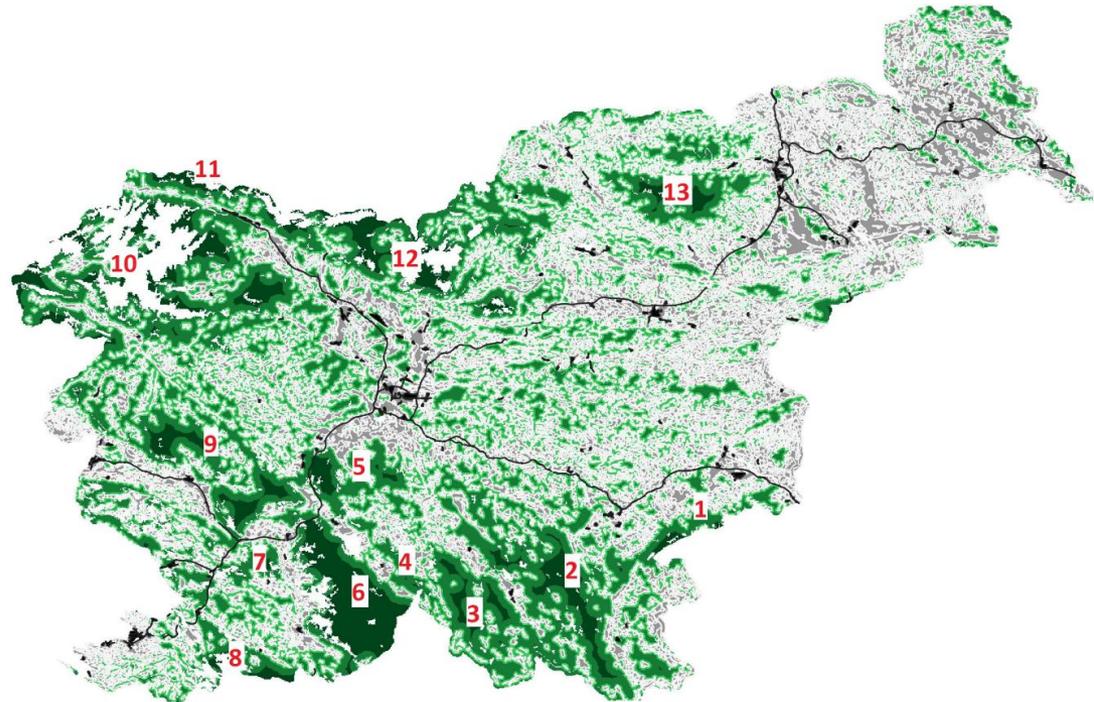
Macro-regional corridor for the connection of southern to northern Ecological Conservation Areas



IDENTIFYING POTENTIAL MOVEMENT CORRIDORS

- There was no study available that would serve our purpose.
- Therefore we conducted an analysis to identify potential corridors (3 STEPS):

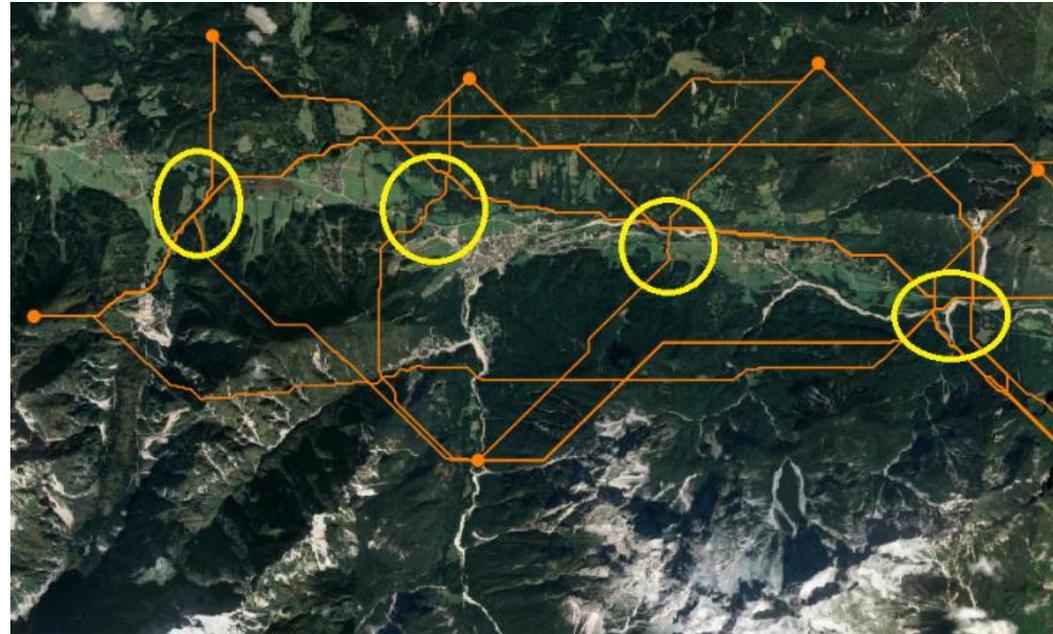
1. STEP: Identifying „habitat“ – large forested areas



IDENTIFYING POTENTIAL MOVEMENT CORRIDORS

2. STEP: Connectivity analysis

- Least-cost-path analysis

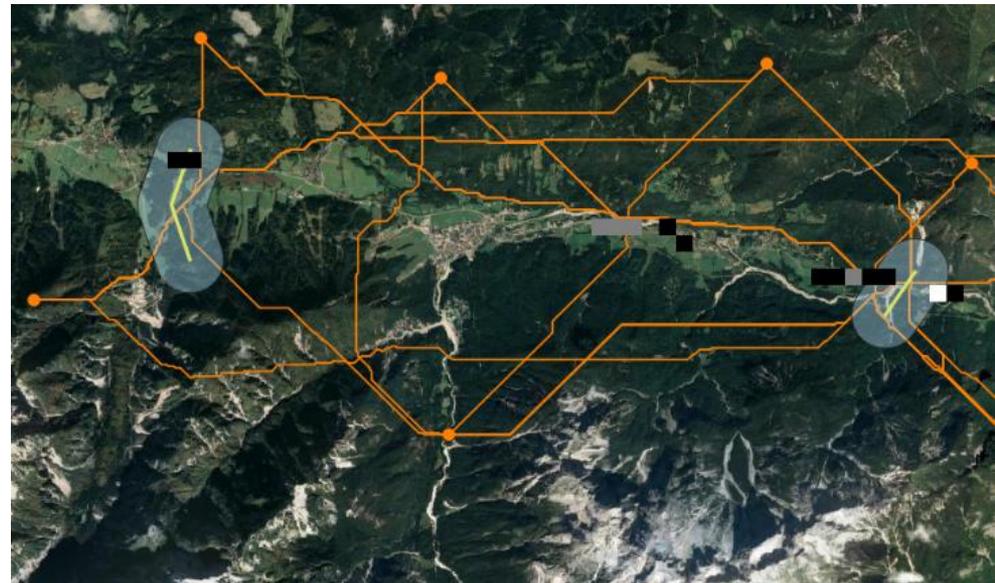


IDENTIFYING POTENTIAL MOVEMENT CORRIDORS

3. STEP: verifying and mapping corridors

- Roadkill data,
- GPS movement data (if available),
- Local knowledge → regional SFS wildlife managers

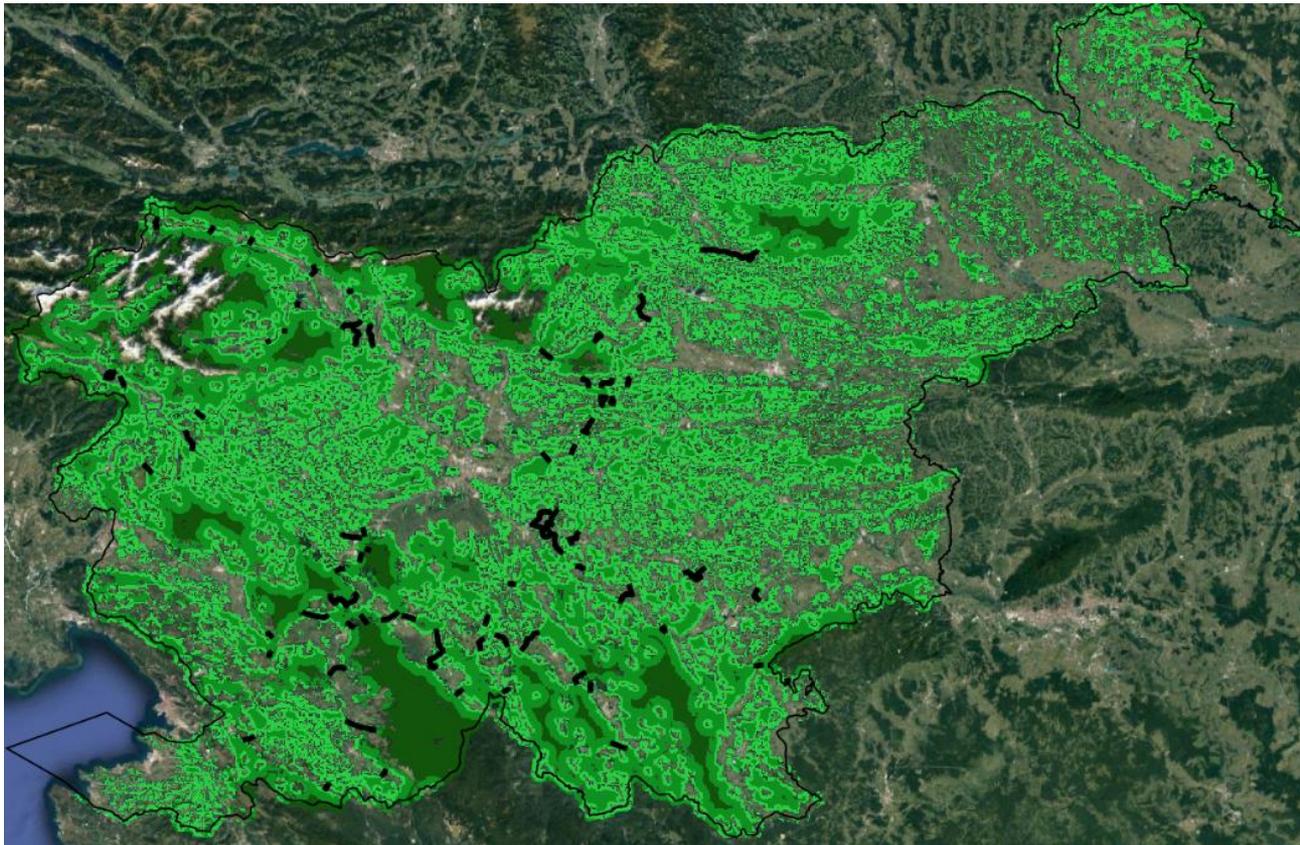
- Mapping corridor width → Edge effect (Beier P. 2018)





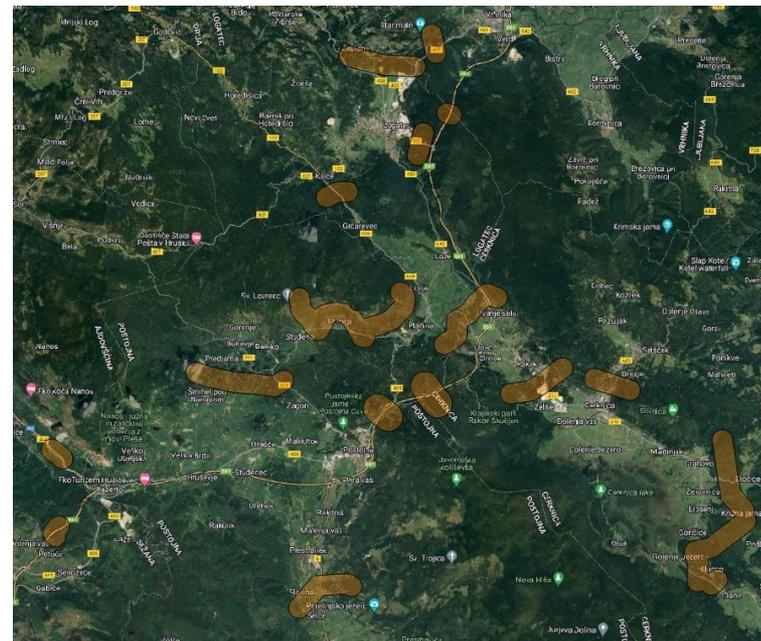
IDENTIFYING POTENTIAL MOVEMENT CORRIDORS

RESULTS: 97 corridors identified, 23.214 ha .



INCLUDING INTO FOREST AND WILDLIFE MANAGEMENT PLANS

- Identified corridors were included into proposed regional forest and wildlife management plans for the period of 2021-2030.
 - Forests within each corridor area were assigned as biotopic important areas (biotopic function on the 1st order of importance).
- 
- Deforestation is prohibited within the corridor area.



Identified corridors part of the Notranjska region.

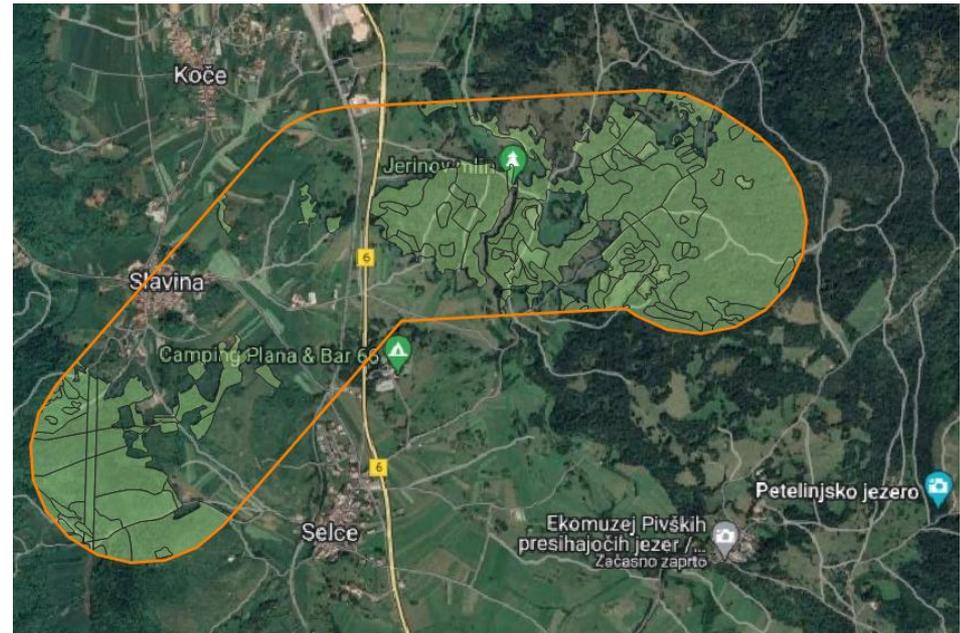
INCLUDING INTO FOREST AND WILDLIFE MANAGEMENT PLANS

FURTHER WORK:

- What about the protection of agricultural land within the corridor?



- **Our temporary solution:** recommendations within the proposed wildlife management plans



What have we achieved

- First national mapping of bottlenecks important for connectivity
- First official protection of the corridors (Taking protection of corridors into account in national forest and wildlife management plans)

Still needs to be done

- Harmonize opinion giving proces within Slovenia Forest Service
- Harmonization of Opinion-Giving Process within Slovenia Forest Service and with Institute for Nature Conservation.
- Create cross-sectoral guidelines for decision-making in opinion giving process

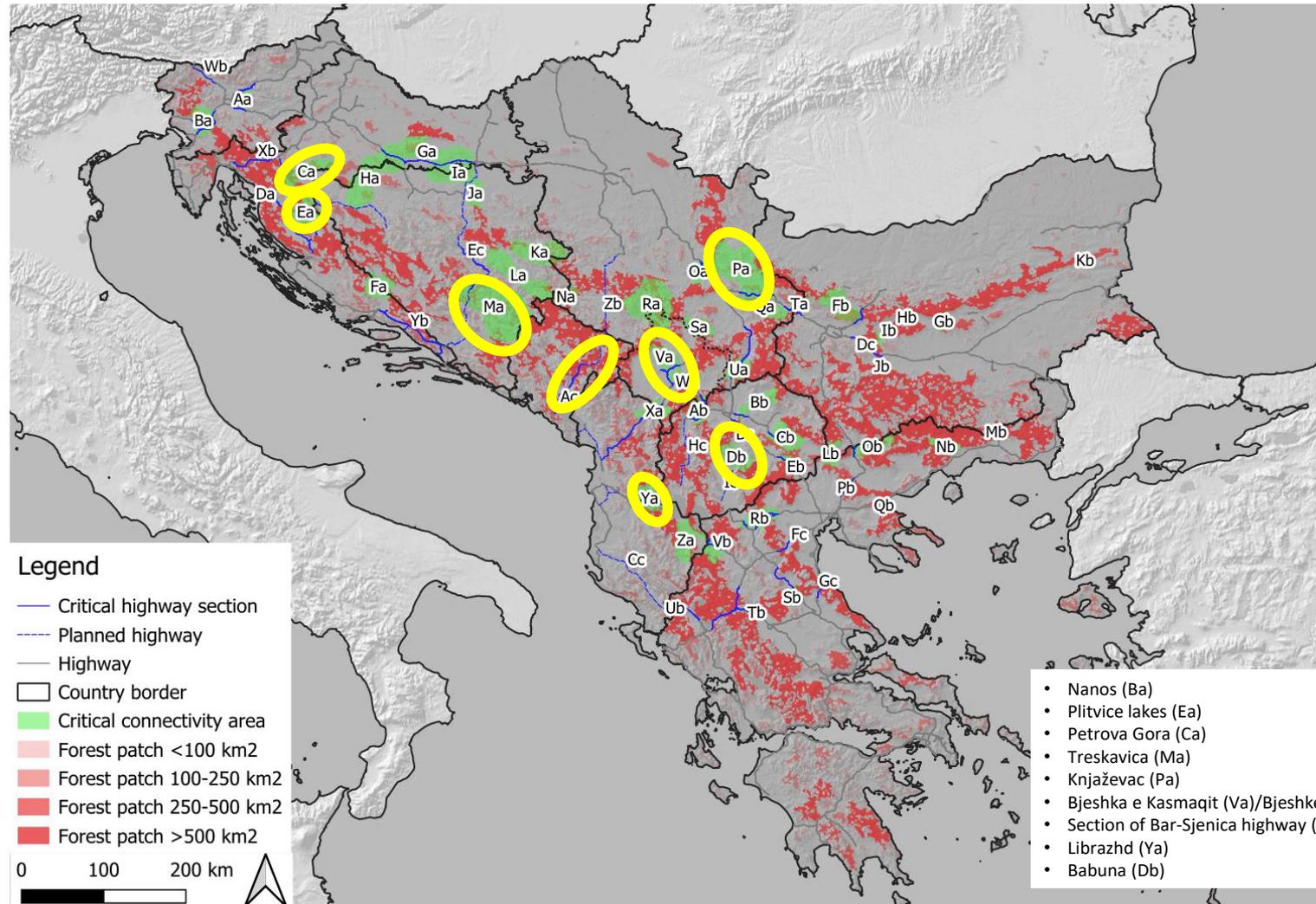


Still needs to be done

- Integration into other regional, municipal planning documents.
- Integrate Landscape Connectivity into Spatial Planning Instruments (and Databases) and Empower the Spatial Planners



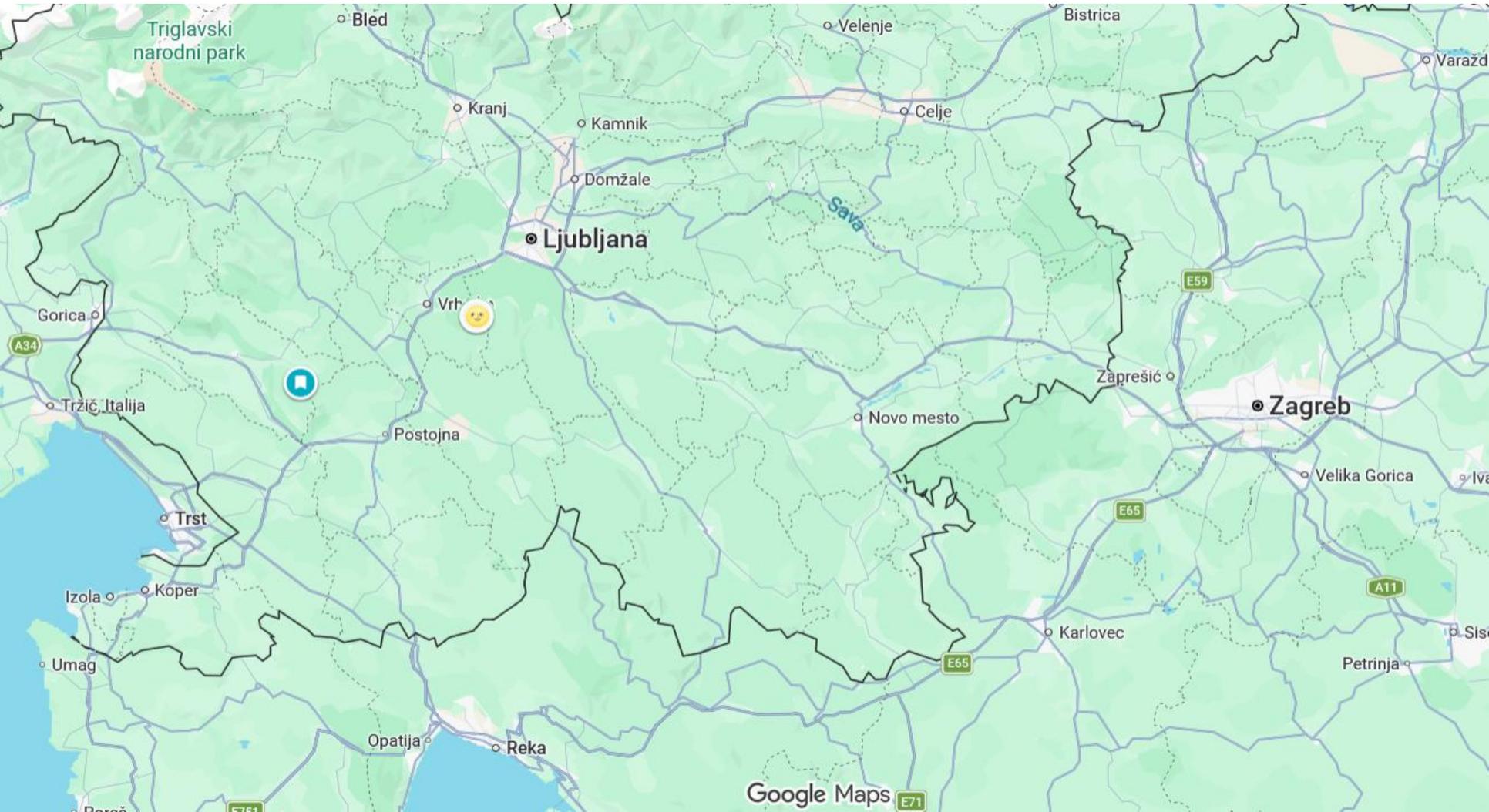
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DIBAPI Project – what is planned to be done?

- In collaboration with Balkan countries finalize the study started in cooperation with WWF
- Evaluation of the corridors on the field with local experts
- Workshop with national / regional / local communities to raise awareness and integrate protection of corridors into spatial planning documents

Examples from Slovenia how things can go wrong if not planned properly



Highway Ljubljana - Triest



Highway Ljubljana - Zagreb



Highway Ljubljana - Zagreb



Ways of how to protect the corridors (bottlenecks) in your country?

