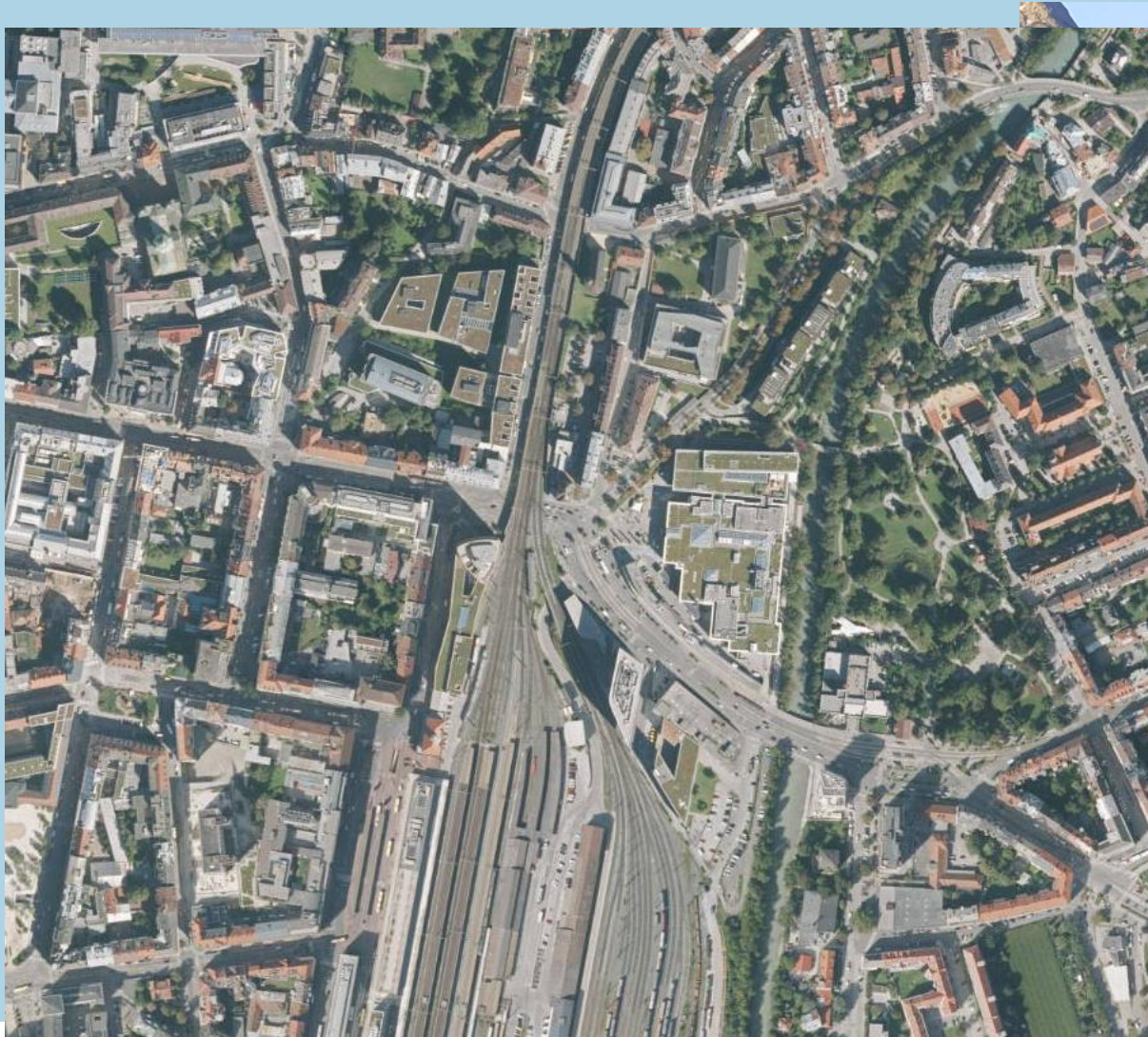


Green Infrastructure and Connectivity in Tyrol from the Perspective of a Regional Administrative Authority with a Focus on the Tyrolean Nature Parks

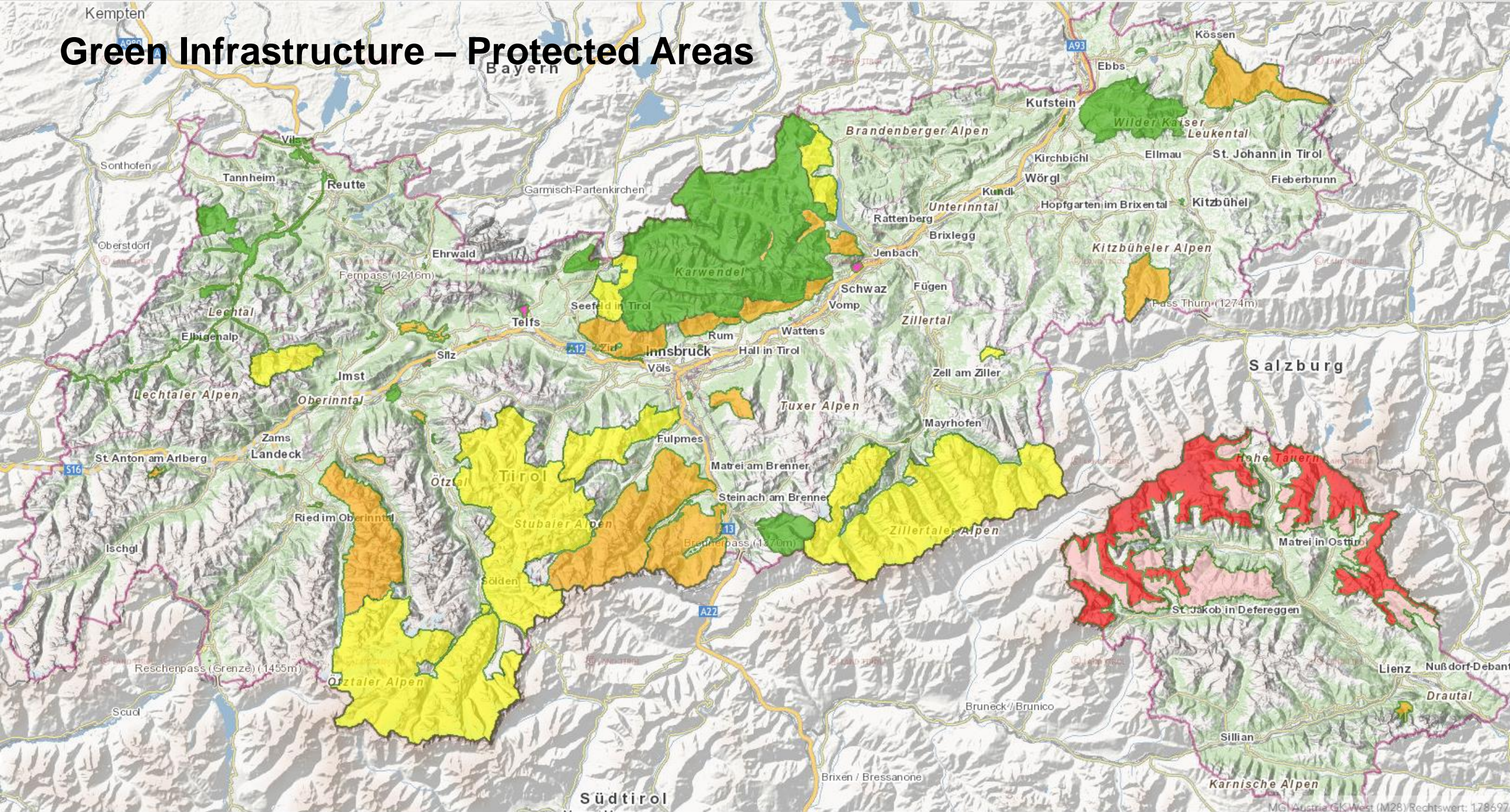






- protected areas - nature parks –
connectivity from a nature conservation point of view
- examples of activities & projects in Tyrol
- challenges

Green Infrastructure – Ecosystem Services



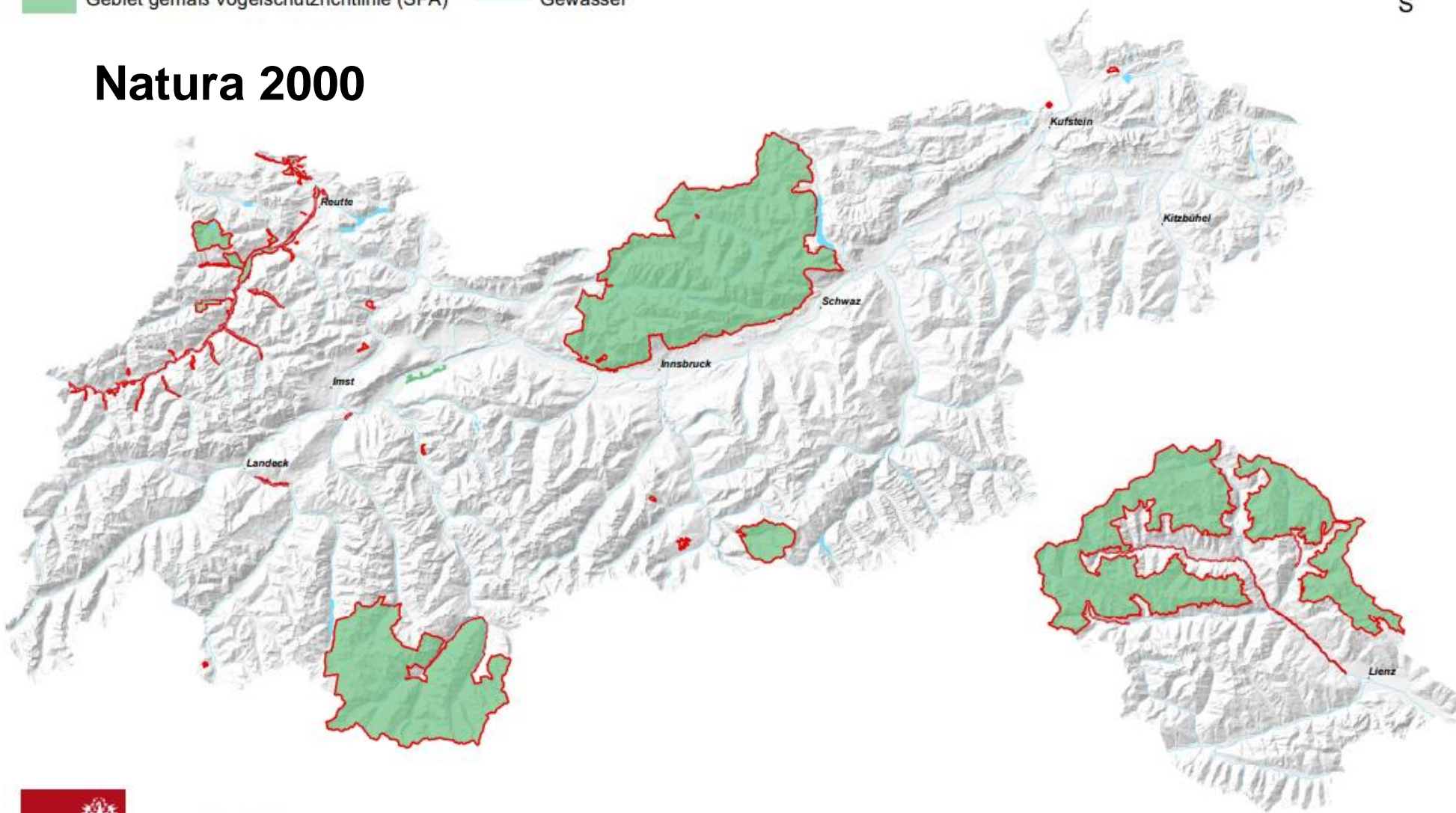
Green Infrastructure – Protected Areas



-  Gebiet gemäß Habitatrichtlinie (SCI)
-  Gebiet gemäß Vogelschutzrichtlinie (SPA)
-  Bezirke
-  Gewässer



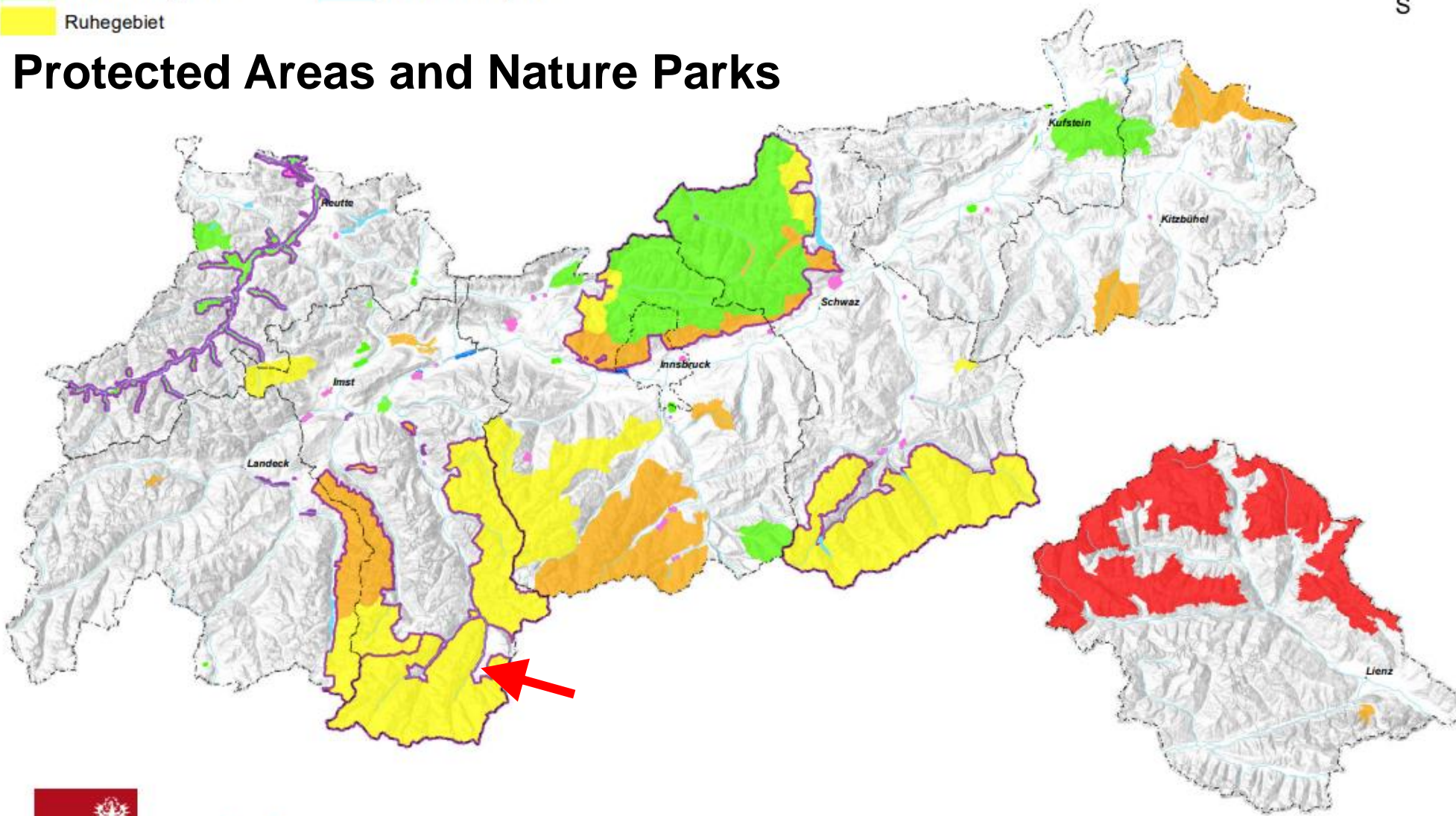
Natura 2000



- | | | |
|--|--|--|
|  Nationalpark Hohe Tauern |  Landschaftsschutzgebiet |  Gewässer |
|  Naturpark |  Geschützter Landschaftsteil |  Bezirke |
|  Naturschutzgebiet |  Sonderschutzgebiet | |
|  Ruhegebiet | | |



Protected Areas and Nature Parks



tiris
www.tirol.gv.at/tiris

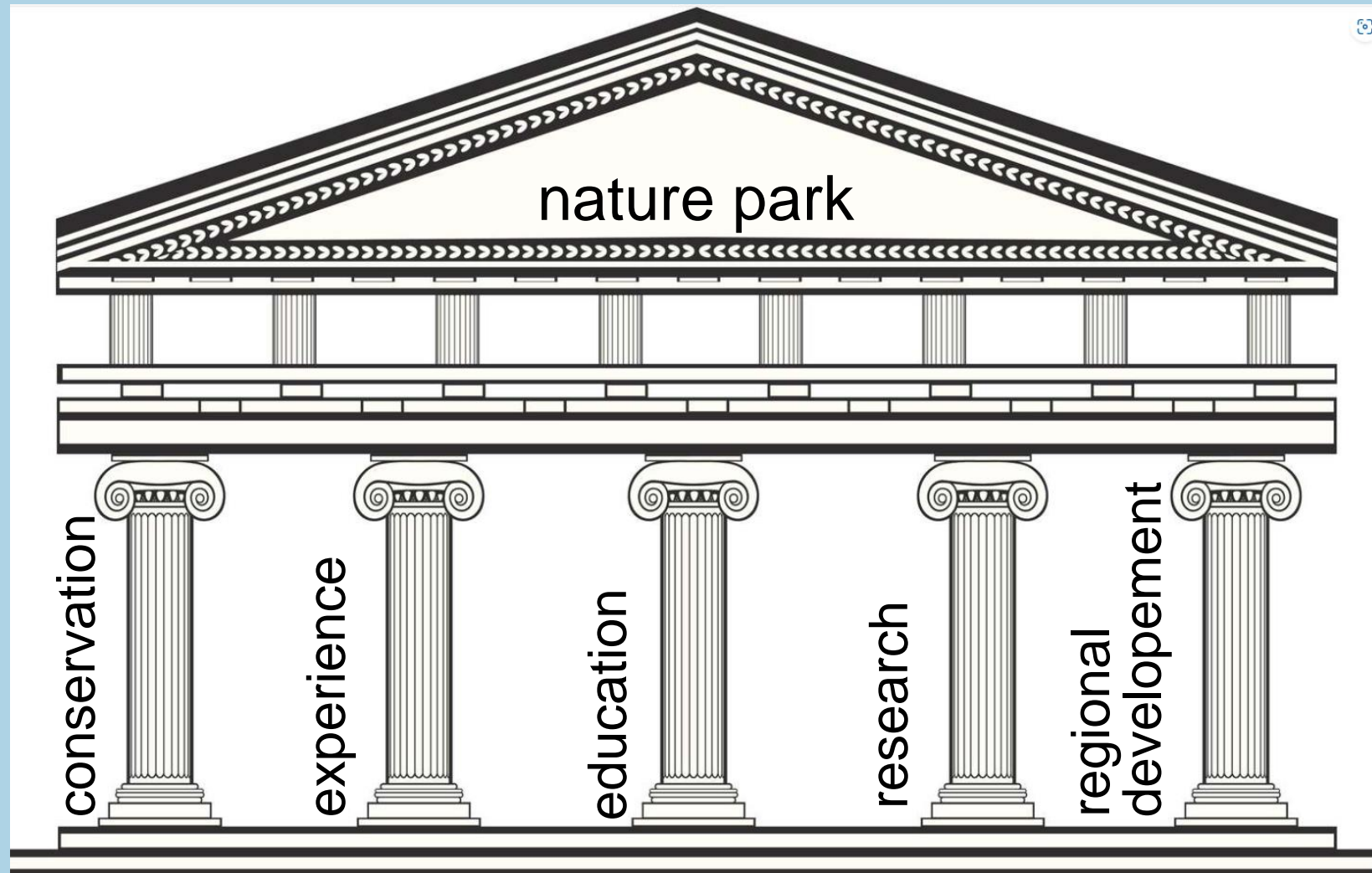
<https://tiroler-naturparke.at/>

Green Infrastructure – Tyrolean Nature Parks



LAND
TIROL

5 columns

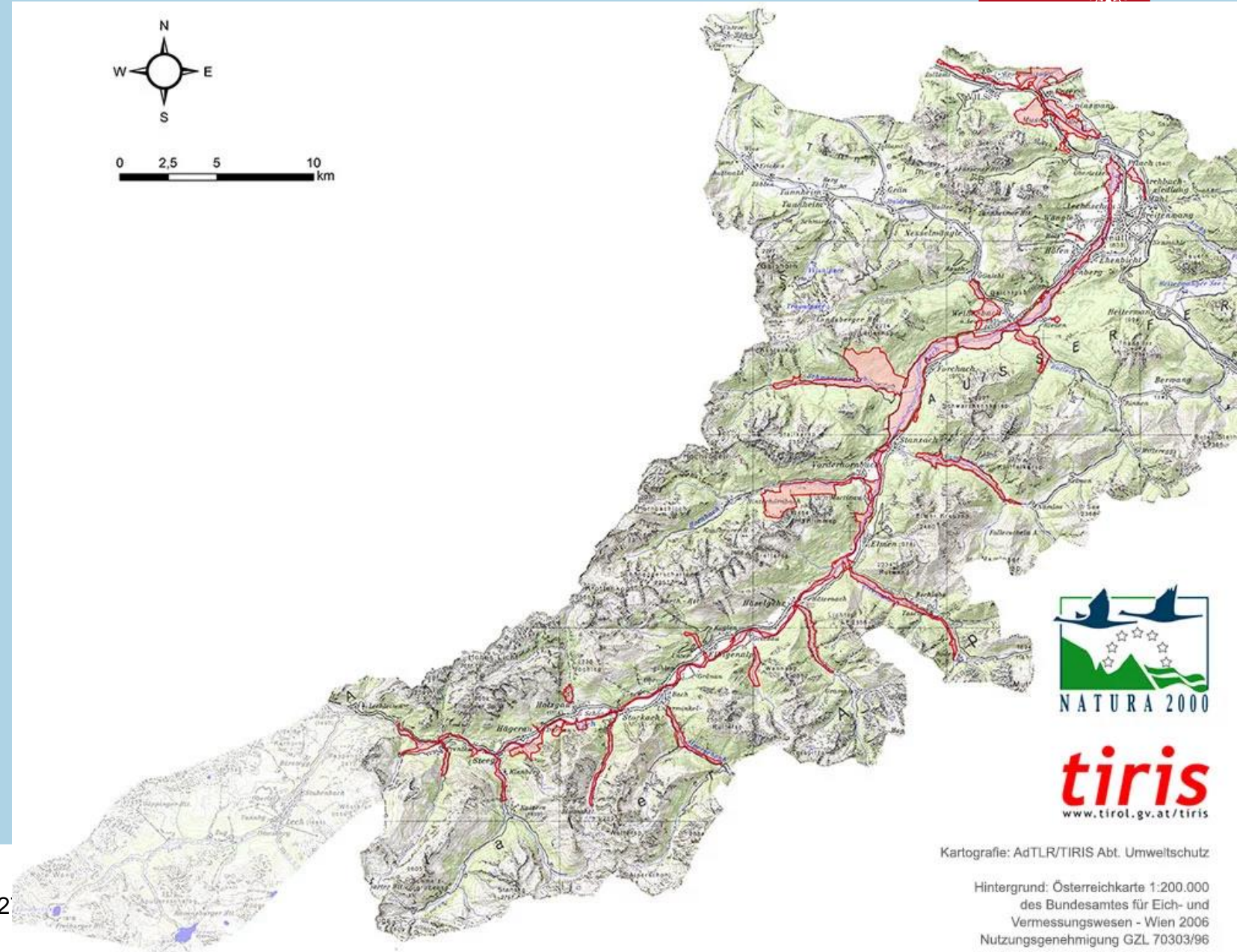


Green Infrastructure – Nature Parks & Connectivity



connectivity

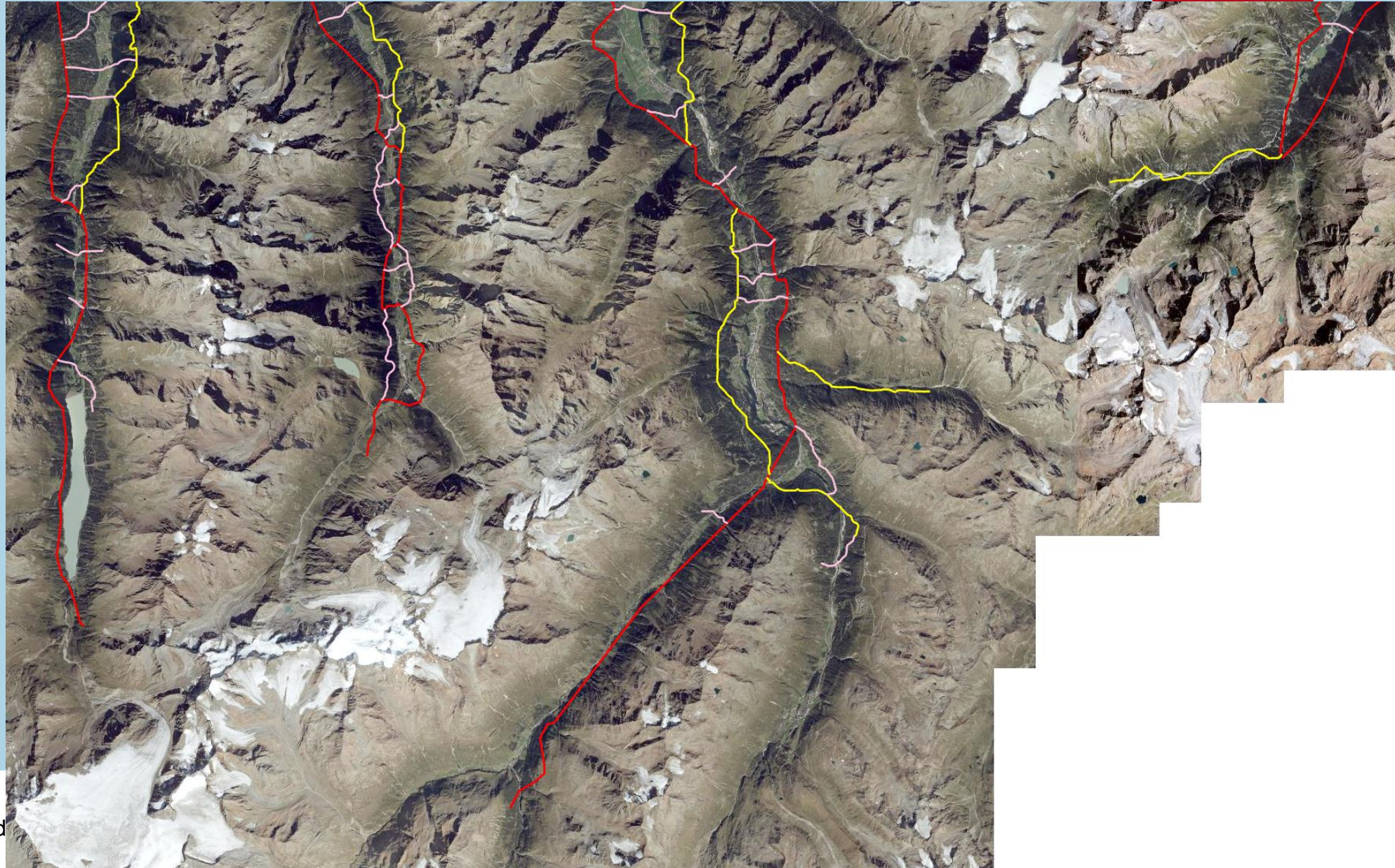
- scales
- local, regional, national, international
- horizontal, vertical





deer migration corridors

JANTSCH W. & H.
LEITNER, 2022:
Habitatmodellierung Tirol
für heimische
Schalenwildarten – Teil II
Lebensraumvernetzung
Tirol. Klagenfurt, 16 S.



connectivity aspects by example of *Myricaria germanica* (German Tamarisk)



Green Infrastructure – Nature Parks & Connectivity



Myricaria germanica is an umbrella species for

Sandpiper (*Actitis hypoleucos*), Foto: Felix Lassacher

Little Ringed Plover (*Charadrius dubius*)

Gravel Bank Grasshopper (*Chorthippus pullus*)

Tetrix tuerkii

Bryodemella tuberculata

Elaphrus ulrichii

Arctosa cinerea

Chondrilla chondrilloides

...



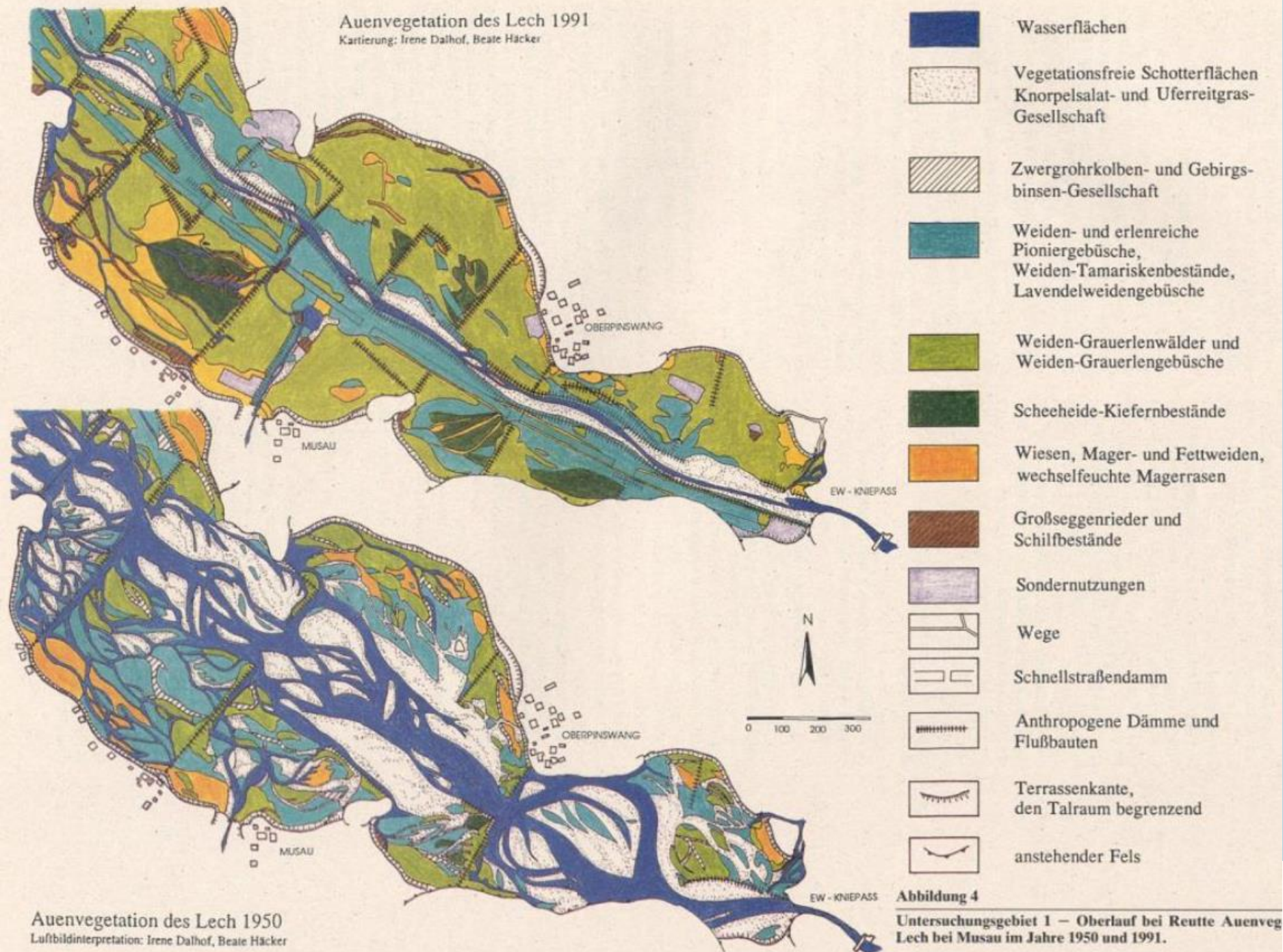
Green Infrastructure – Nature Parks & Connectivity



Green Infrastructure – Natura Parks & Connectivity



transitional zones between different habitats



Green Infrastructure – Nature Parks & Connectivity

Life Lech II - Forchach



2017

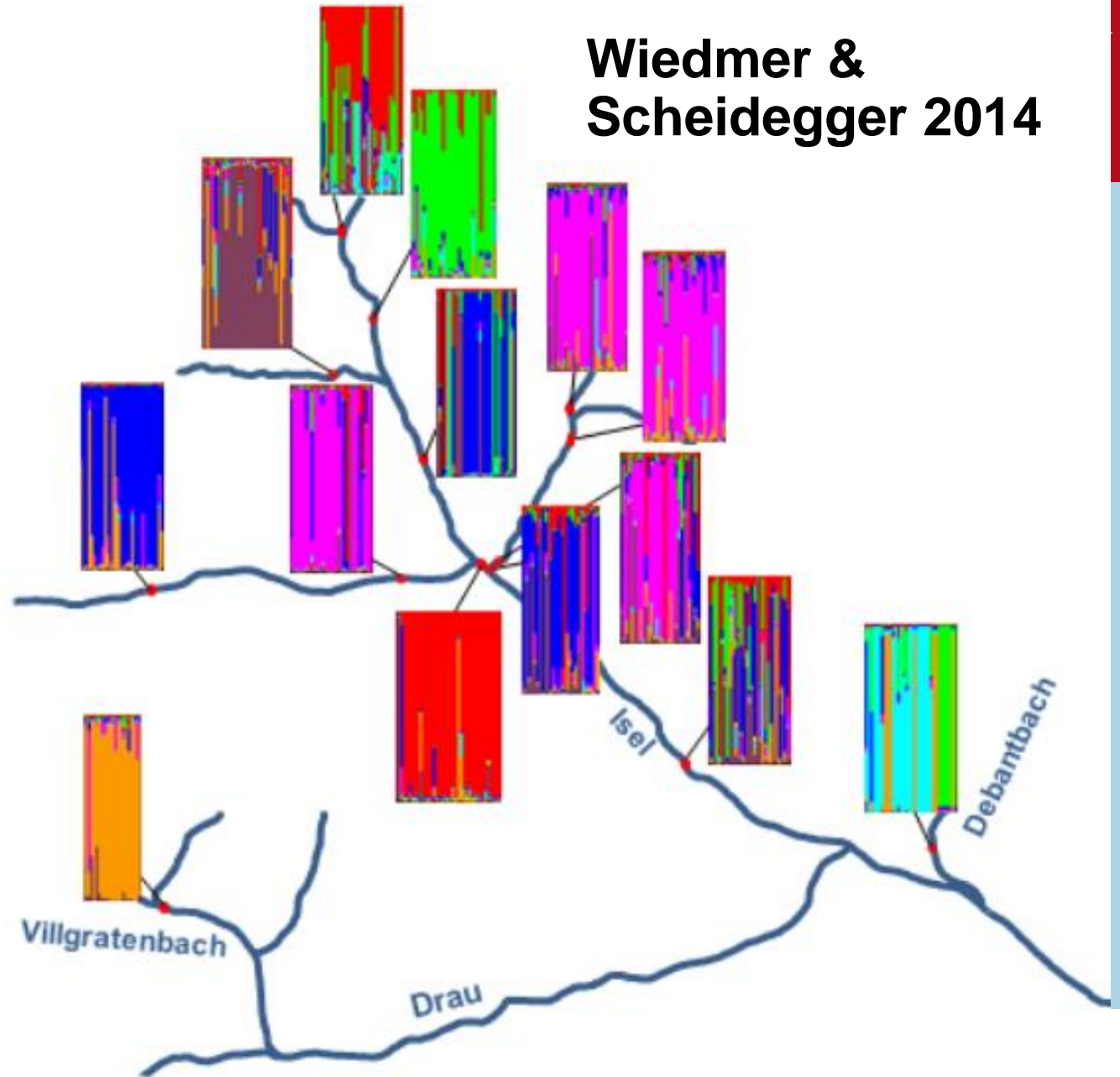
2022



Green Infrastructure – Nature



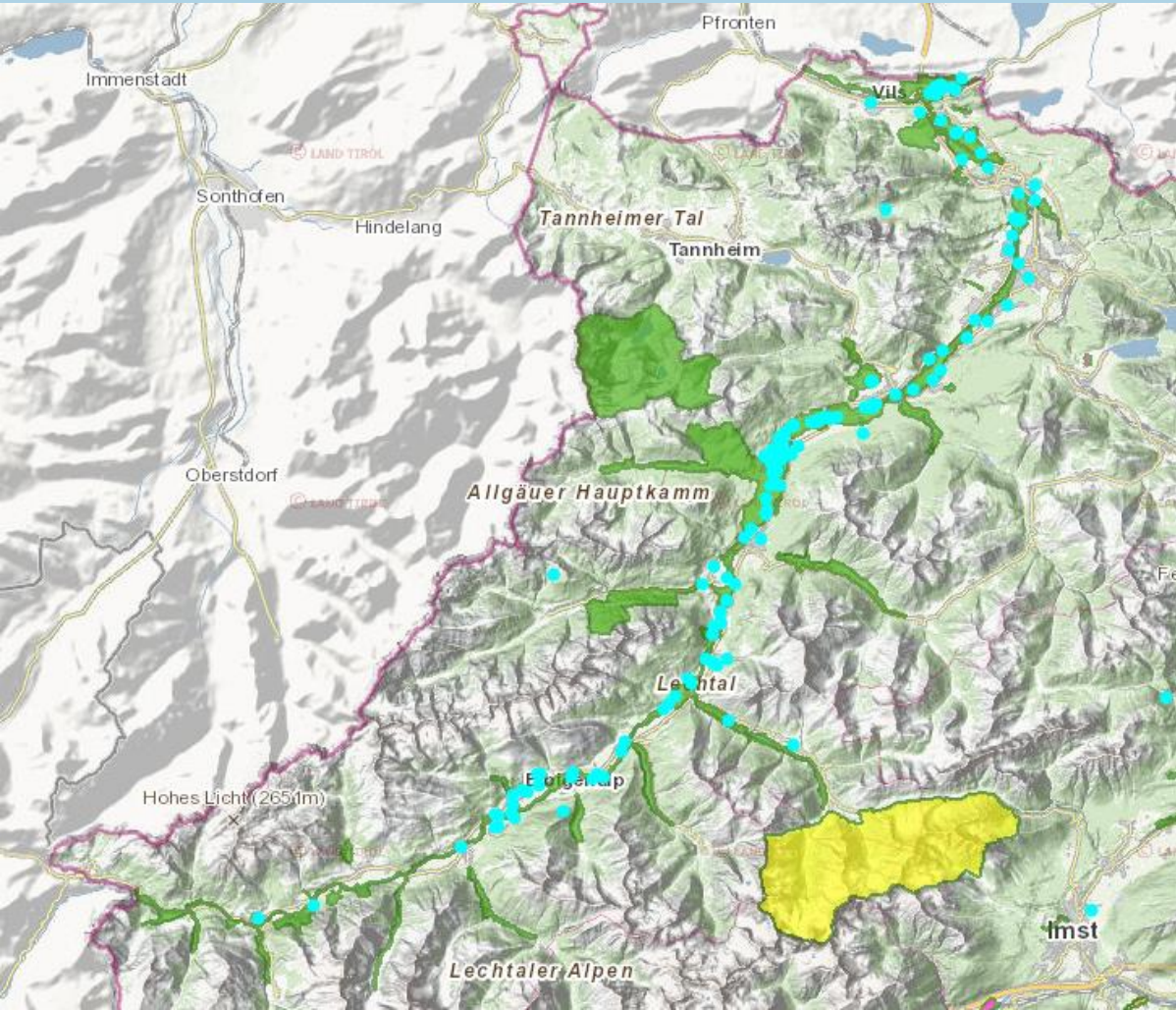
**Wiedmer &
Scheidegger 2014**



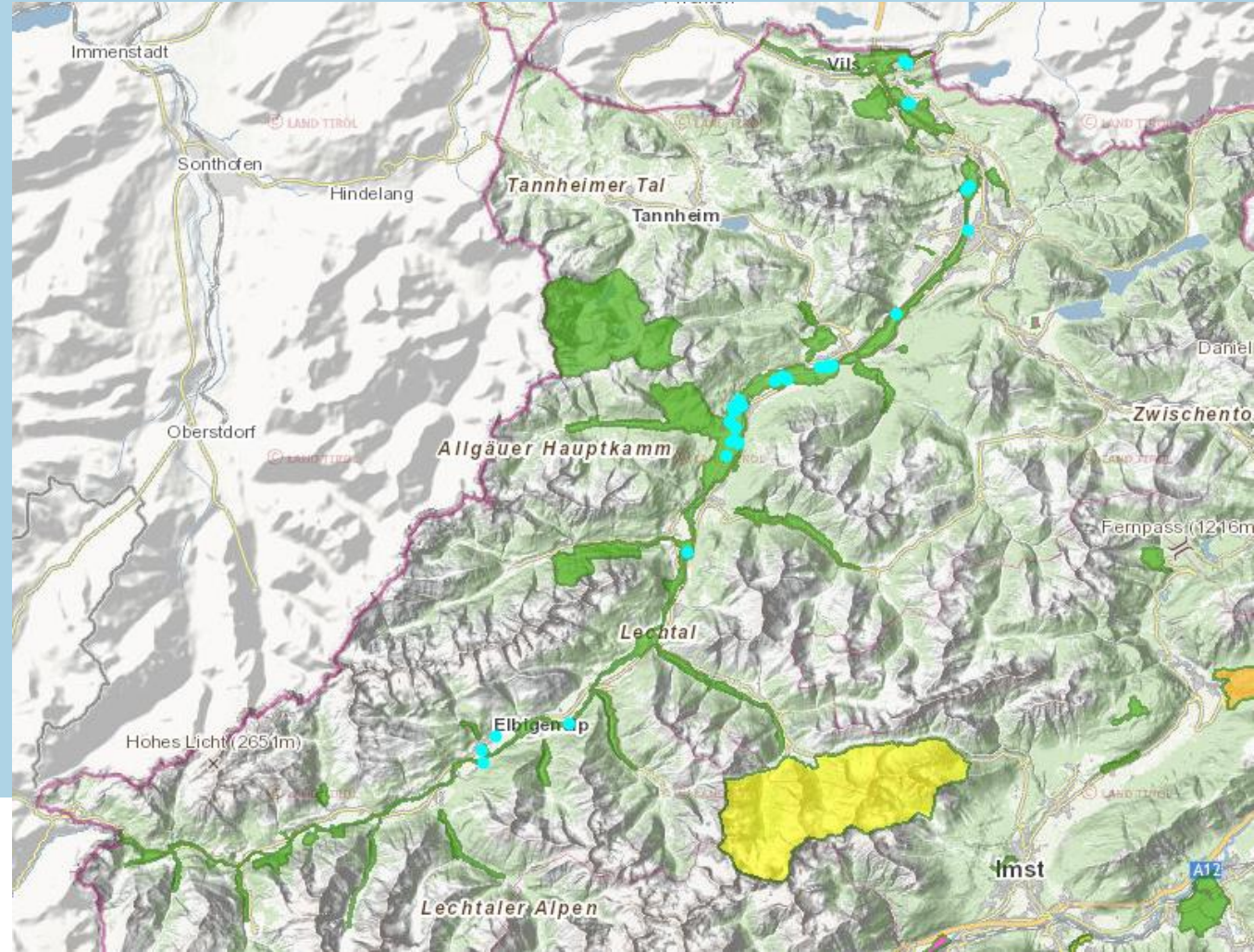
Green Infrastructure – Nature Parks & Connectivity

meta-population – *Myricaria germanica*

data 1900 - 2023

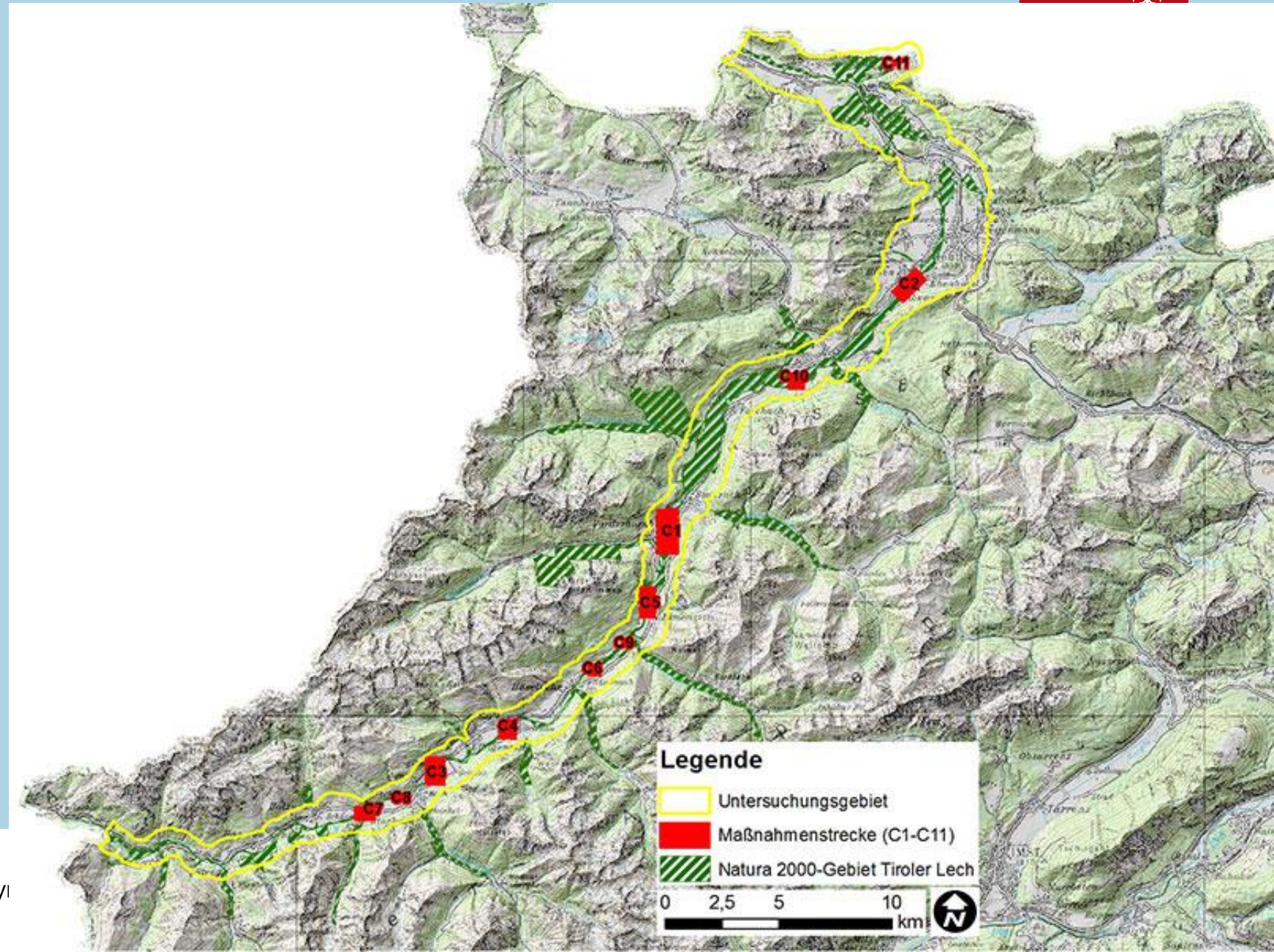


data 2000 - 2023





Life Lech II

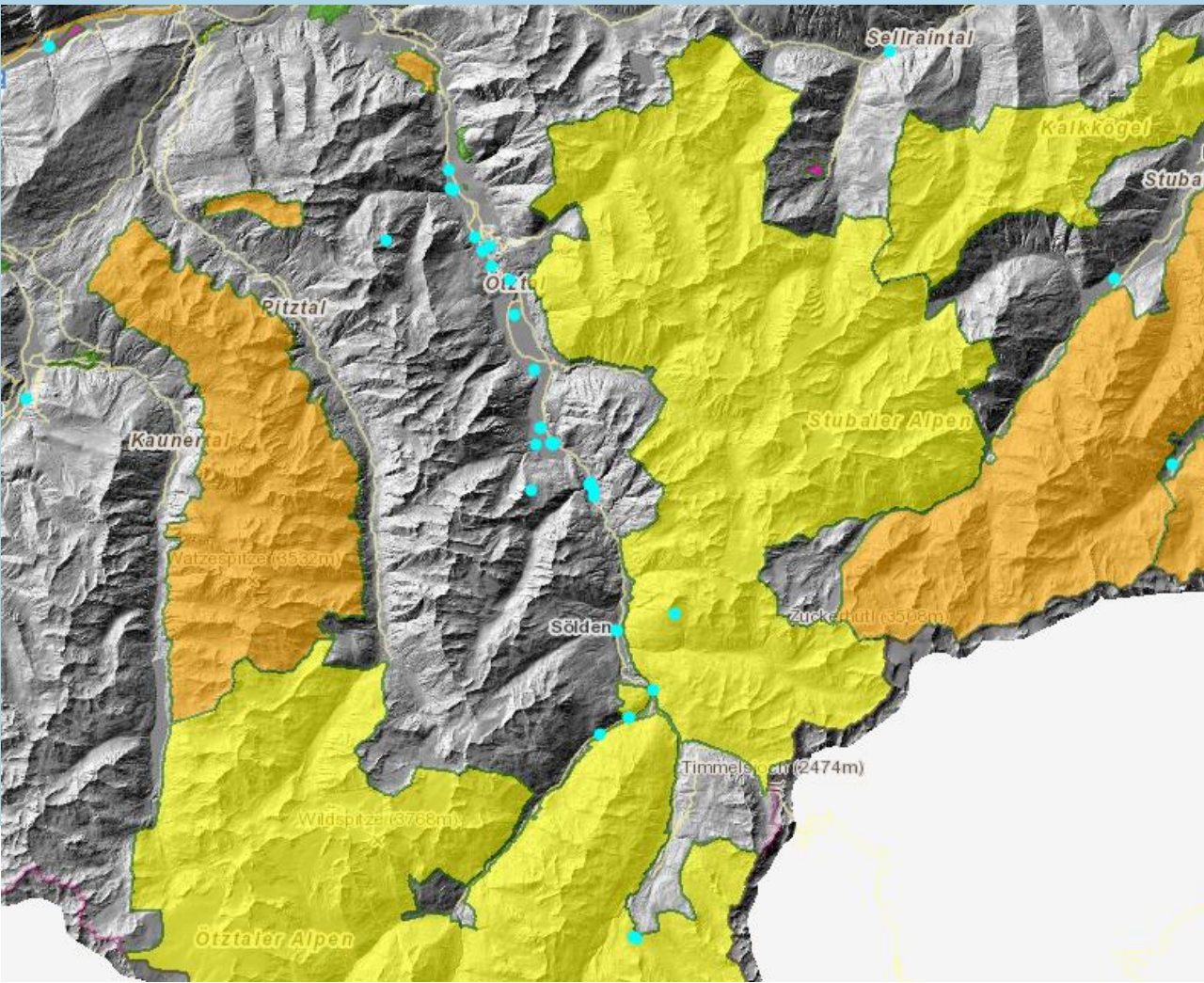


Green Infrastructure – Nature Parks & Connectivity

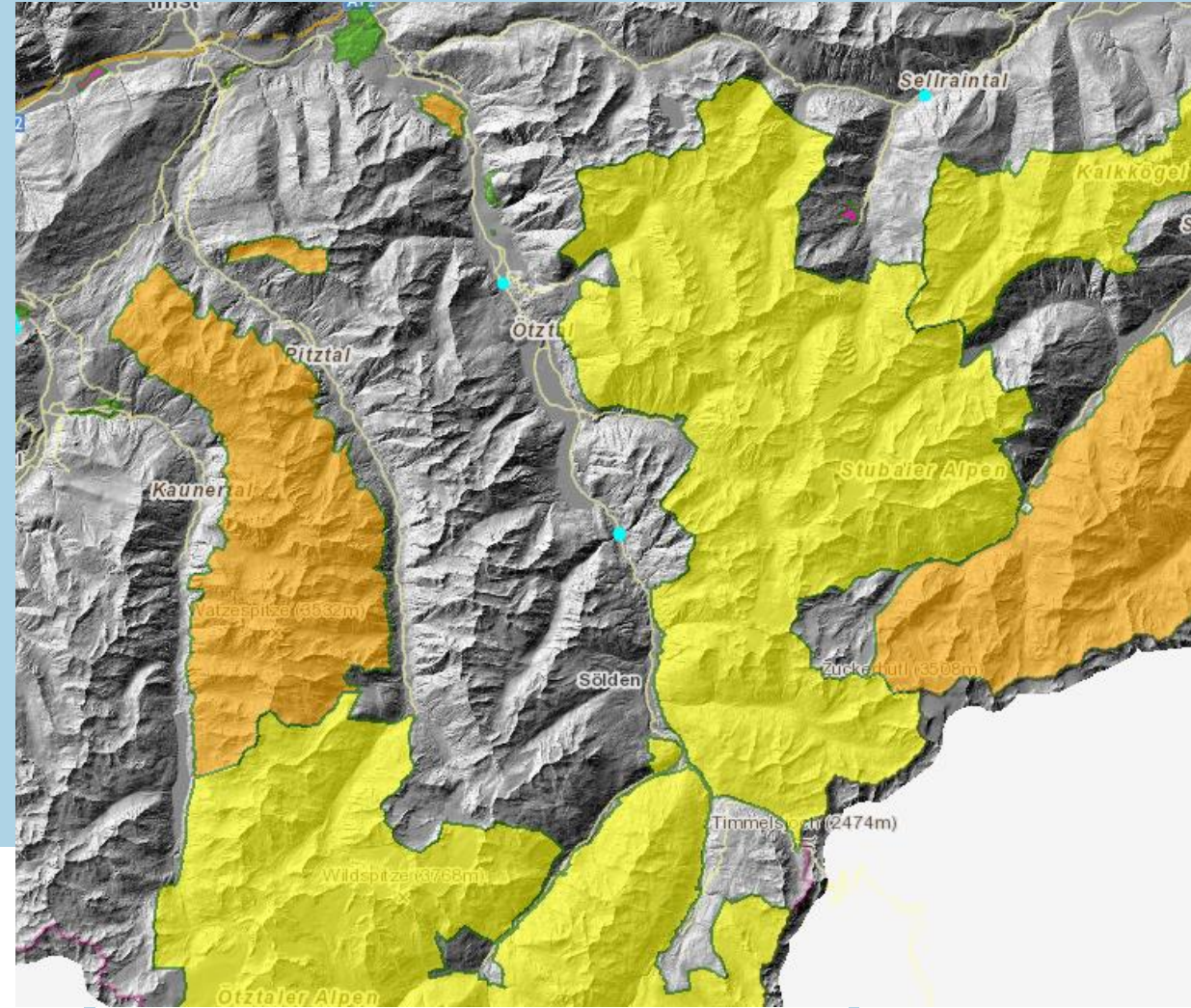


Myricaria germanica – Ötztal

data 1900 - 2020



data 2000 - 2020



- **minimum habitat size and requirements**
- **local population – meta population – species biology and habitat ecology**
- **natural processes**



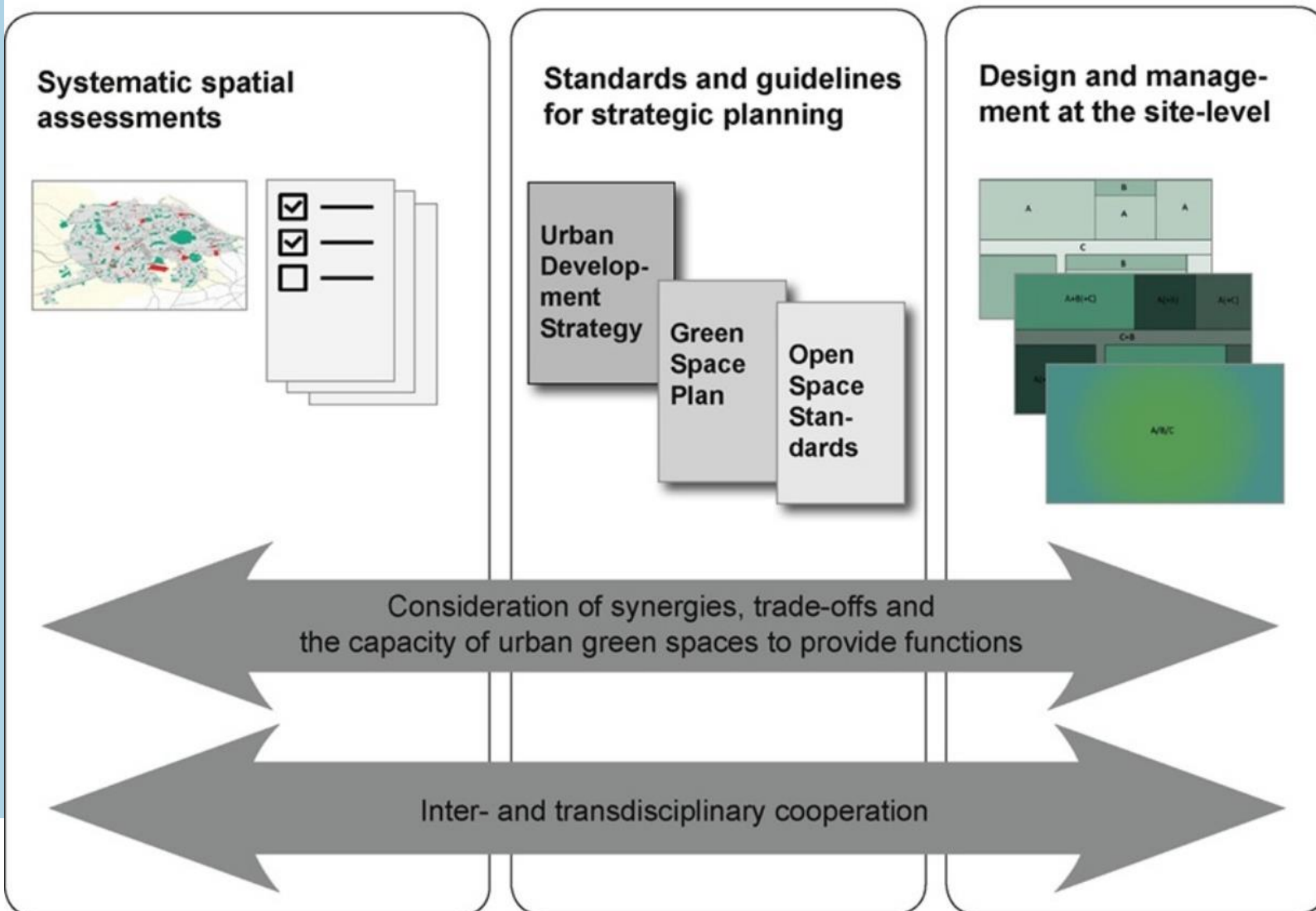


Green Infrastructure is multifunctional

from Hansen et al. (2019):

Planning multifunctional green infrastructure for compact cities: What is the state of practice?
in Ecologic Indicators, Vol. 96

Approaches to promote multifunctionality in compact cities

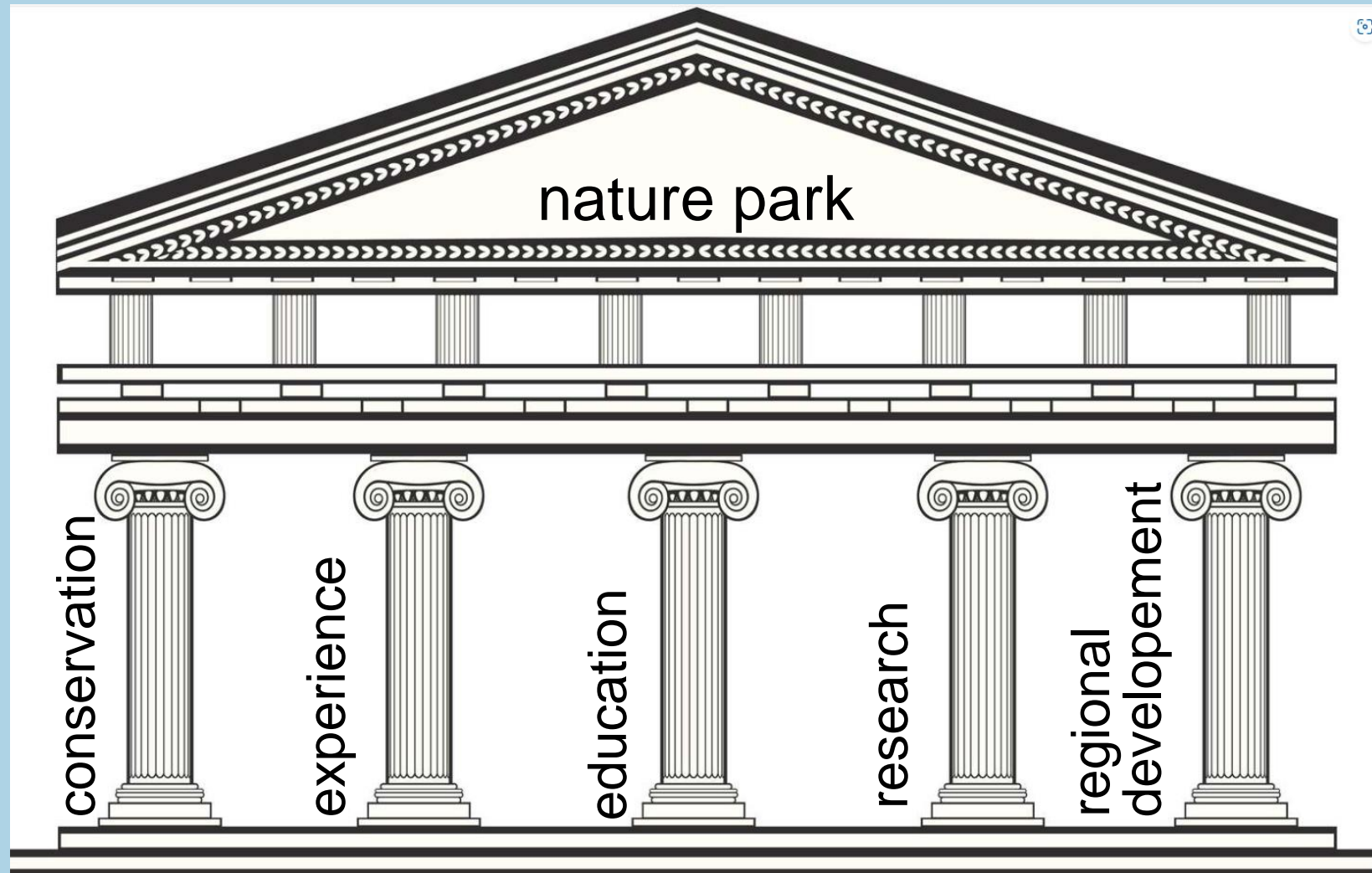


Green Infrastructure – Tyrolean Nature Parks



LAND
TIROL

5 columns



Green Infrastructure – Ecosystem Services

1816/1821

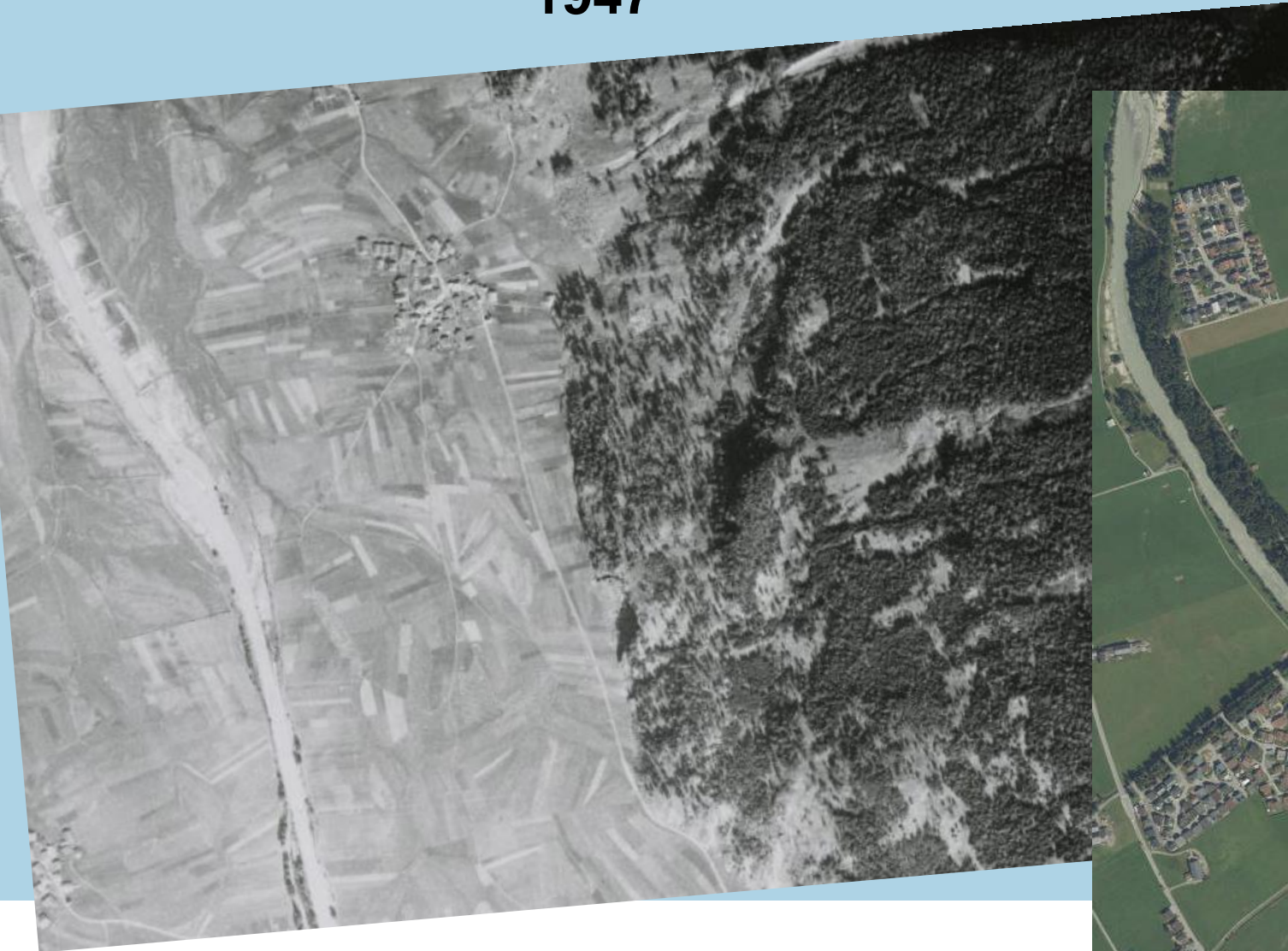


2023



Green Infrastructure – Ecosystem Services

1947

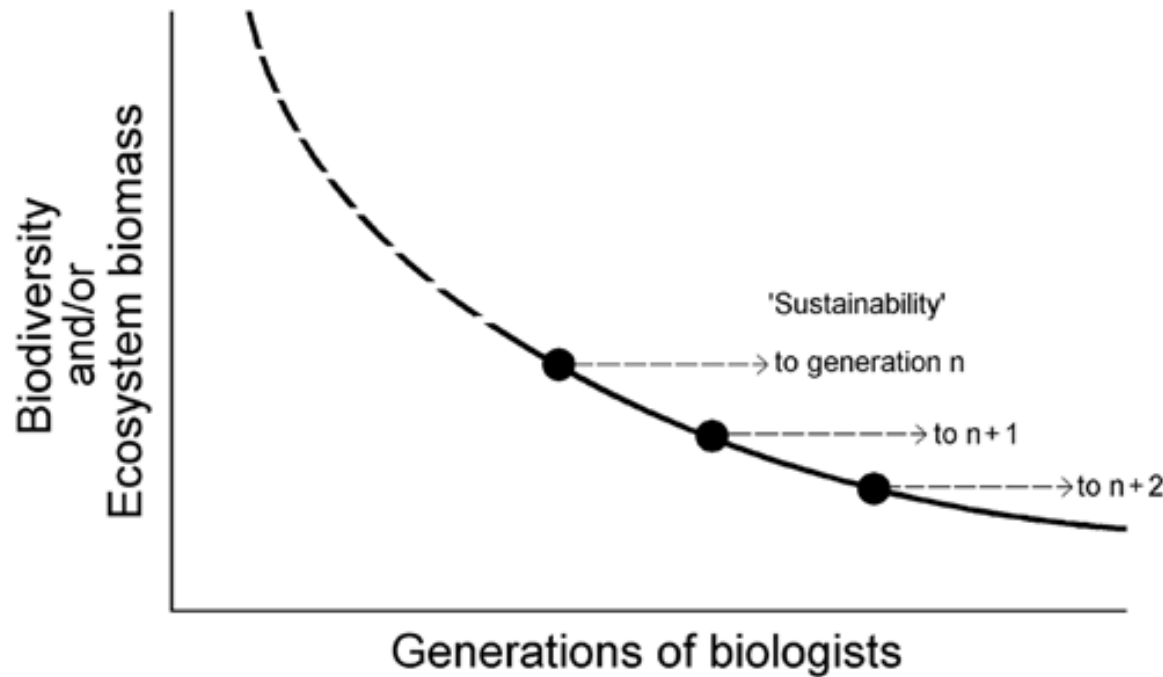


2023

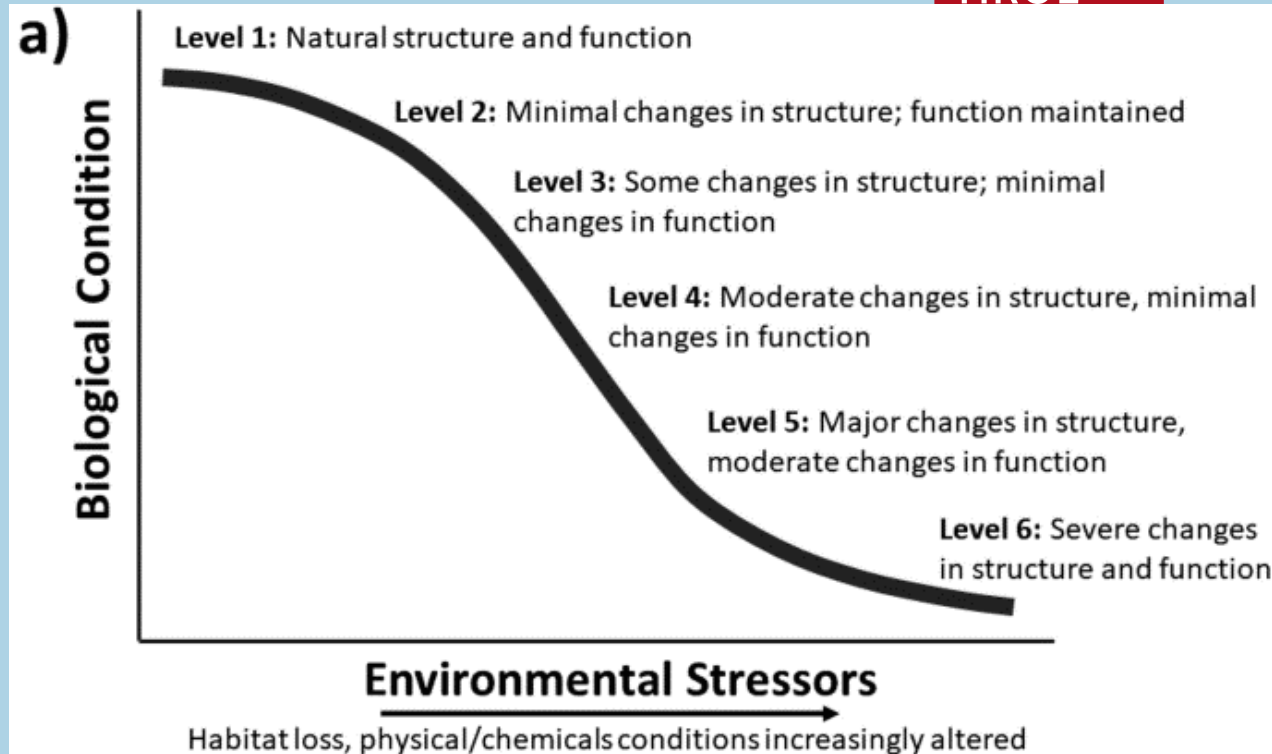


Green Infrastructure – Ecosystem Services

Using recovered knowledge to prevent baseline shifts



Rost, D. (2014). Das Shifting-Baseline-Syndrom (SBS) – Einführung in ein heuristisches Konzept. In: Wandel (v)erkennen. Springer VS, Wiesbaden.



Yee, S. et al. (2020). The Ecosystem Services Gradient: A Descriptive Model for Identifying Levels of Meaningful Change. In: O'Higgins, T., Lago, M., DeWitt, T. (eds) Ecosystem-Based Management, Ecosystem Services and Aquatic Biodiversity . Springer, Cham.

Green Infrastructure – Ecosystem Services

- restoration of connectivity needs space, often private property
- areas with functional connection to green infrastructure



Innkarte 1830



Luftbild 1996



Luftbild 2015

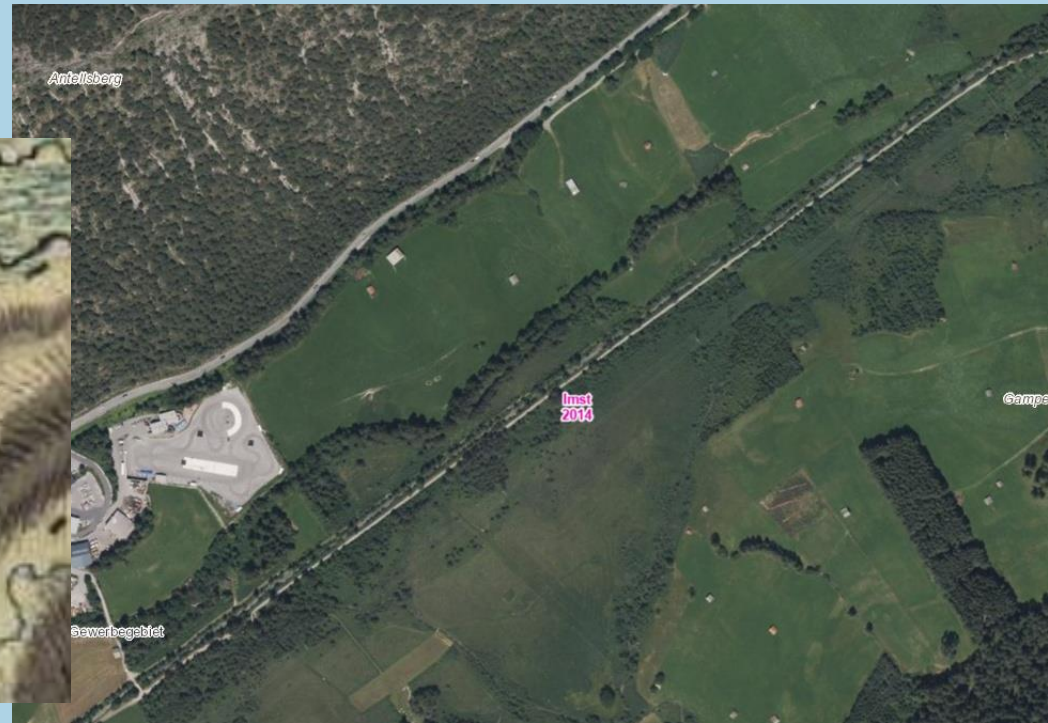
Green Infrastructure – Ecosystem Services

Who translates the expert knowledge to land users/owners/stakeholders?

1805



2014



2020



Green Infrastructure

- is multifunctional -> interdisciplinary approach
- is sustainable -> benefit - cost
- is flexible & resilient -> will be crucial for climate change adaptation
- gap: translation of expert knowledge to land users/owners/stakeholders
- gap: to bring the theory to the ground (personnel, willingness for transdisciplinary work)



LAND
TIROL

