





INNO Alm

Südtiroler Bauernbund

INNOAlm:
The use of digital tools in alpine farming and pasture management

Von der Europäischen Union kofinanziert:
Europäischer Landwirtschaftsfonds für die Entwicklung des ländlichen Raums (EU – Verordnung Nr. 2021/2115)

Project presentation | Astrid Weiss

Südtiroler Bauernbund (SBB) – Farmers‘ Association South Tyrol & 10 key facts

- Founded in 1904
- ~ 20.000 members in South Tyrol
- Important service provider for family-run farming businesses
- Since 2011: Innovation & Energy department
- „Closed farm“ tradition
- 484.000 ha are agricultural and sylvan areas (out of 740.000 ha total surface)
- 26 fruit cooperatives, 11 diary coop, 15 wine coop, 5 livestock coop
- ~ 800 small direct marketers, > 1.600 farms offer farm holiday
- Farm size: Wine farms on average ~1 ha, apple farms ~3 ha on average
- Every 10th apple in Europe comes from South Tyrol






OG-Project: Innovation in alpine pasture management





EU CAP NETWORK

INNOAlm: Validation of innovative measures for a future-oriented alpine pasture management in South Tyrol

- **Project duration:** 30 months (01.05.2025 – 31.10.2027)
- **Budget:** 280.000€
- **Funding scheme:** CAP Strategic Plan 2023–2027, Intervention SRG01 – Support for EIP-AGRI Operational Groups
- **Partner:** 5 farmers, 2 research & education, 2 advisory services & farmer association

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Project Partnership



3 focus areas:

- Herd management
- Grazing management
- Animal health

-> Digital tools to facilitate work on alpine pastures
-> Network coverage

Mission: Ensure the long-term survival of economically and ecologically valuable alpine pastures through measures to improve herd management, animal health and network coverage

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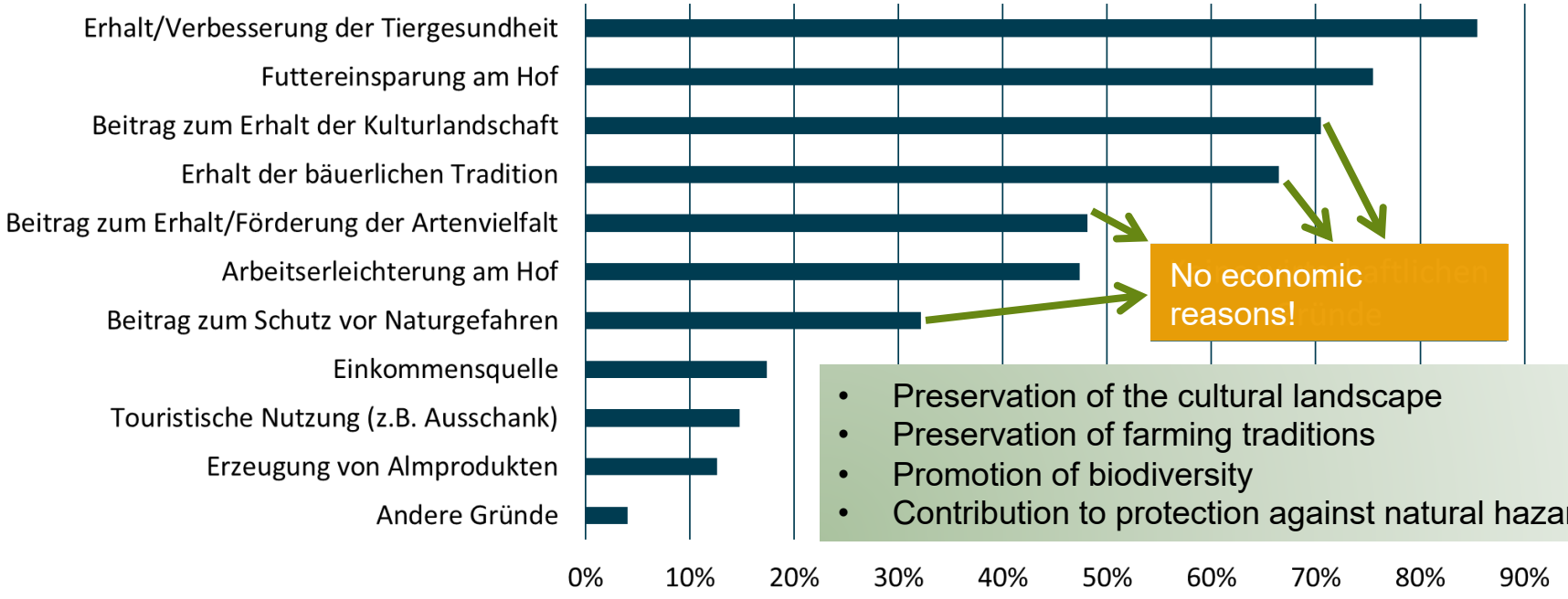


Work packages, activities, expected results

WP1 *Project management & Communication*	•Project management •Dissemination, training, project sustainability •Networking	✓ Info material ✓ Webinars ✓ Study visits
WP2 *Analysis of current situation*	•Assessment of needs and challenges in alpine pasture management •Analysis of the current state of network coverage and existing digital tools	✓ Qualitative Interviews ✓ Map of network coverage in Südtirol
WP3 *Feld trials*	•Testing and optimization of innovative digital systems for tracking herds on alpine pastures •Field trials to improve animal health and herd management	✓ Integrated digital concept ✓ Network development
WP4 *Development of measures*	•Development of practical solutions for alpine pasture management •Development of foundations for advisory services and training	✓ Digital Grazing plan ✓ Catalogue of measures

Survey results (WIFO 2023)

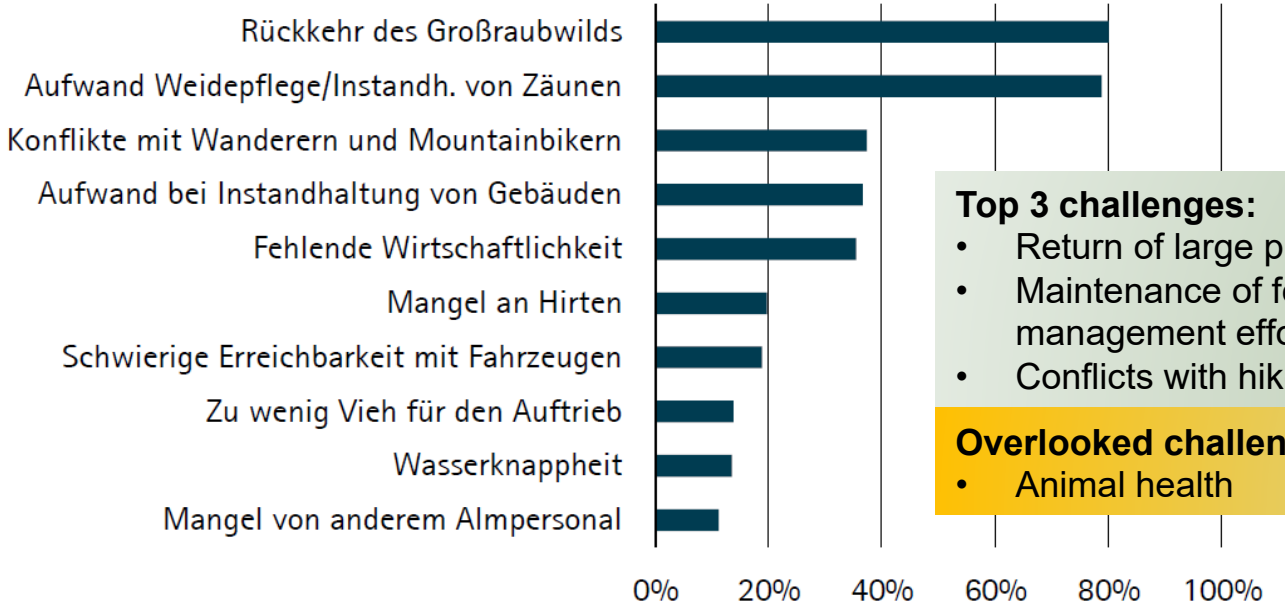
Why do farmers bring their animals on alpine pastures?



- Preservation of the cultural landscape
- Preservation of farming traditions
- Promotion of biodiversity
- Contribution to protection against natural hazards

Survey results (WIFO 2023)

What are the challenges on alpine pastures?





Top 3 challenges:

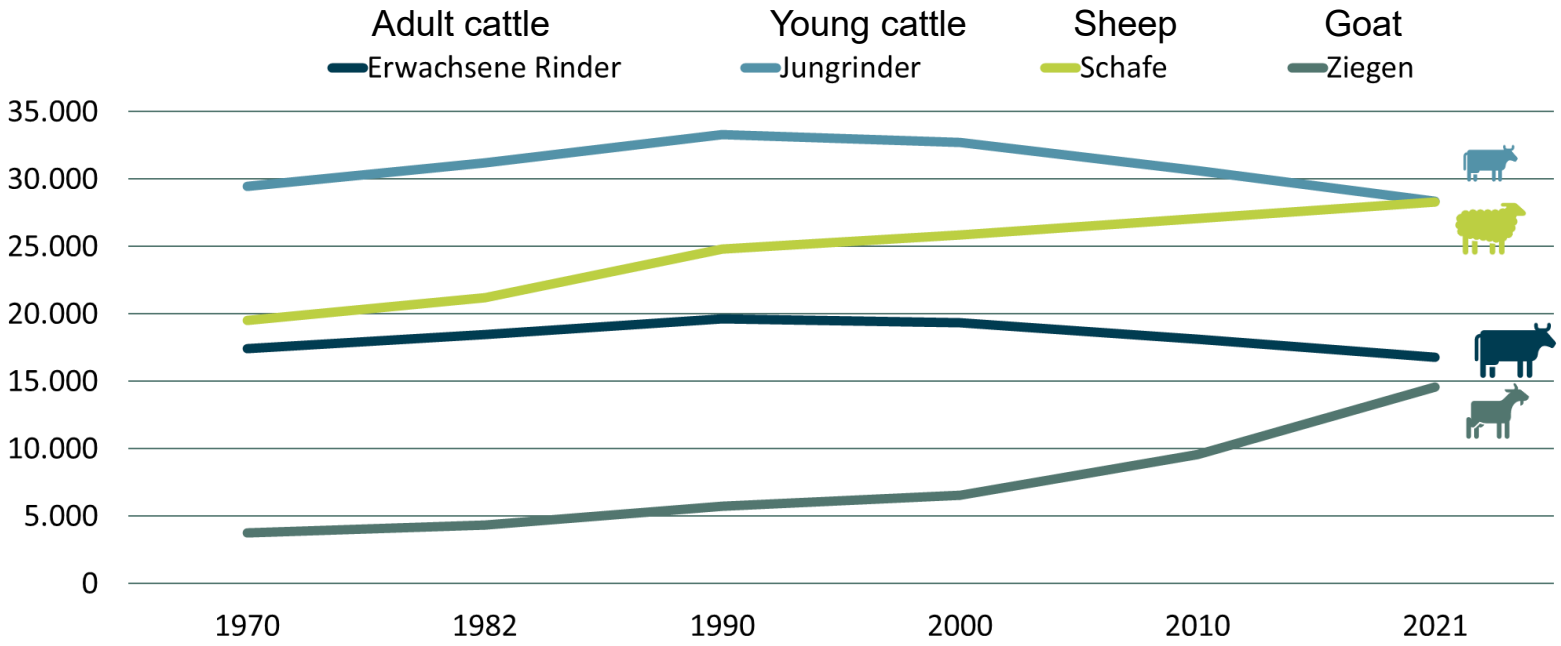
- Return of large predators
- Maintenance of fences and pasture management efforts
- Conflicts with hikers and mountain bikers

Overlooked challenge:

- Animal health

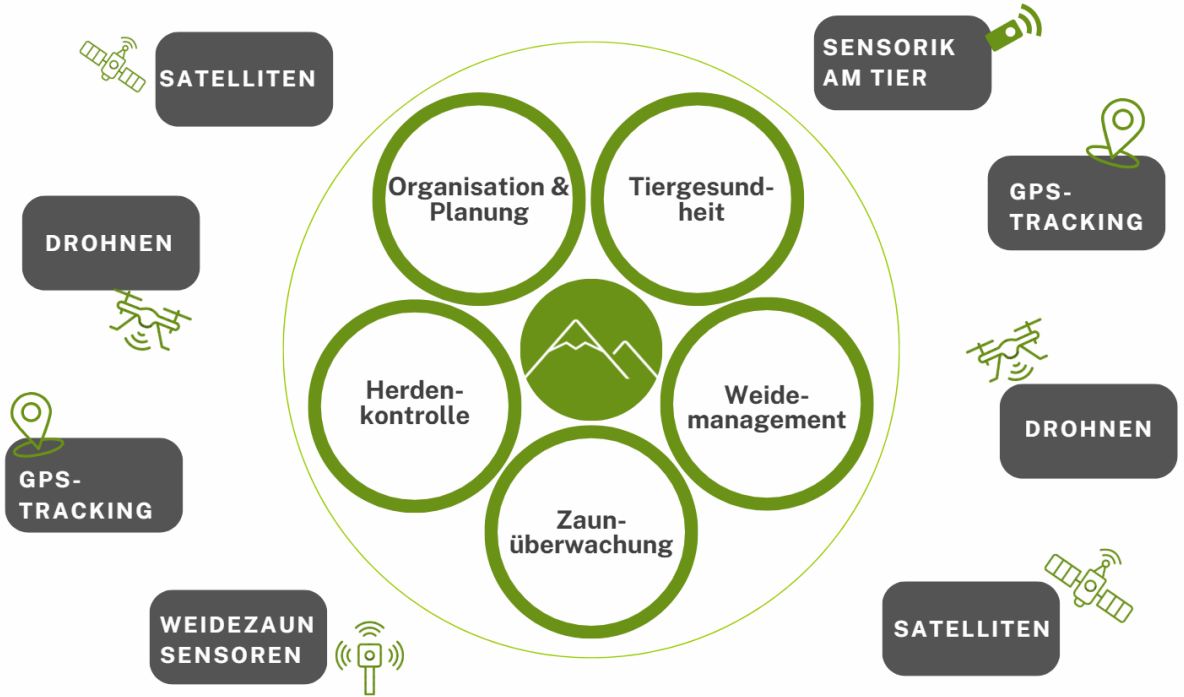


South Tyrol's alpine pastures in figures – WIFO 2023



Assessment of current situation

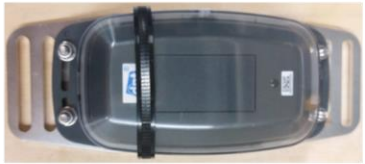
Stats quo regarding the network coverage on pastures and of existing digital tools



Comparison of GPS trackers

2 types: LTE SIM & LORAWAN antenna

VIEHFINDER





track

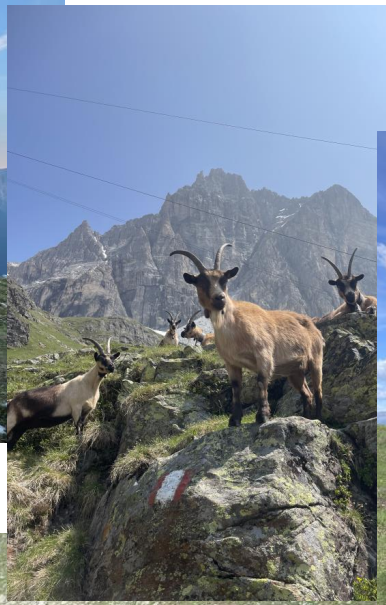
infostars®





likeM13
IoT solution provider







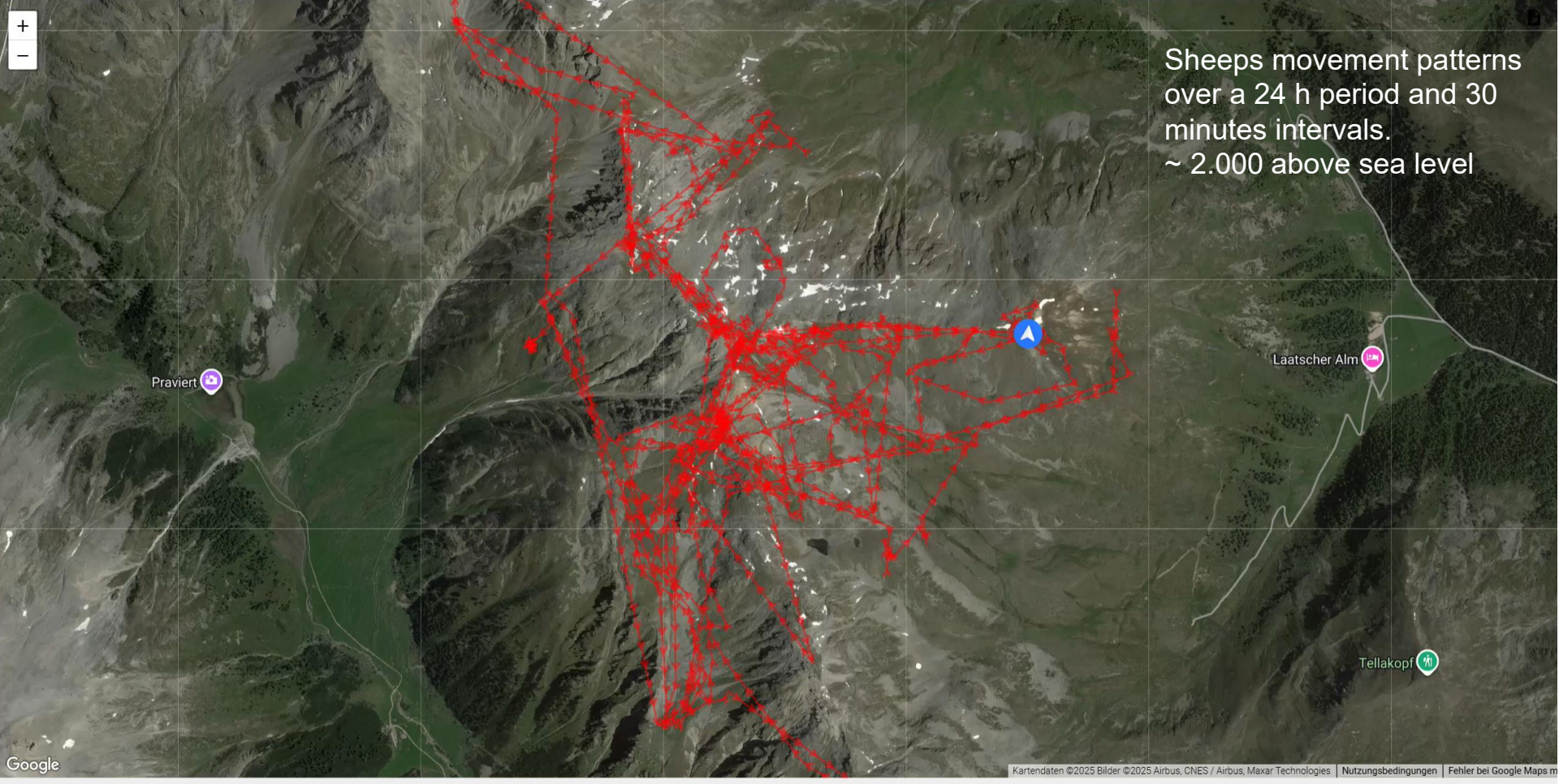








INNO Alm


Sheeps movement patterns over a 24 h period and 30 minutes intervals.
~ 2.000 above sea level
Praviert
Laatscher Alm
Tellakopf
Google
Kartendaten ©2025 Bilder ©2025 Airbus, CNES / Airbus, Maxar Technologies
Nutzungsbedingungen
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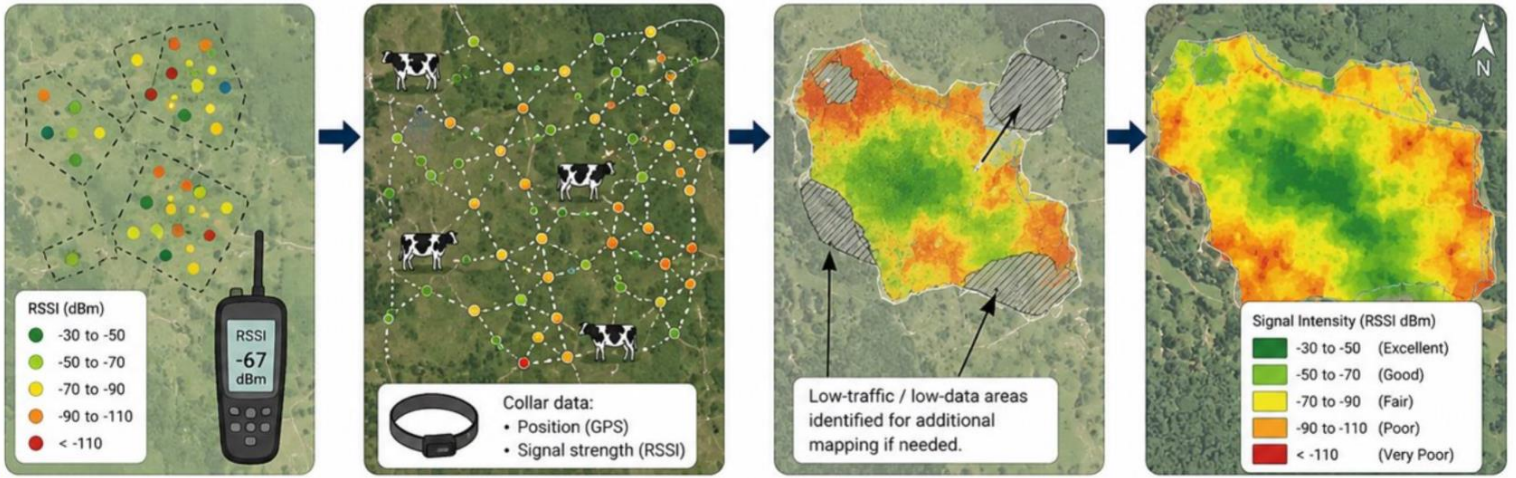
Signal maps for LoRaWAN

Field tests in selected sampling areas
measuring RSSI values at different positions.

Use of signals from the collars themselves
if made available by Patrik, to calculate a large number of signal positions directly from collar data.

Additional targeted mapping of low-traffic areas
where and if necessary.

Development of a signal intensity map
similar to the vegetation index maps, showing spatial variability and coverage quality.



Current project status

- Purchase of trackers on 4 pastures ✓
- Calibration and testing under controlled conditions ✓
- Technical comparison of GPS trackers ✓
- On-sie inspection and planning of network development on alpine pastures ✓

- Conducting qualitative interviews
  (Hirten, Almen, Stakeholder, n=20)
- Research on technical and legal framework conditions
- Installing network antennas
- App – development for the 2026 alpine pasture season
- Digital mapping of network coverage
- Digital grazing plan
- Guidelines

Field surveys (feed status, shrub encroachment)











Next steps and implications for advisory services

1. **Field trials**
   - Comparison of GPS trackers
   - Testing the potential of GPS trackers on partner alpine pastures, focusing on animal health detection and herd management.
2. **Study Visit** Steiermark, Austria
3. **Data collection digital grazing plan**
   - Drone footage
   - Field surveys (e.g. feed availability on alpine pastures, shrub encroachment, etc.)
   - GPS points (movements patterns)





Let‘s innovatate together for economically and ecologically valuable alpine pastures.

Thank you!

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