



Sustainable Ski Resorts

Meiringen-Hasliberg & Arosa

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01

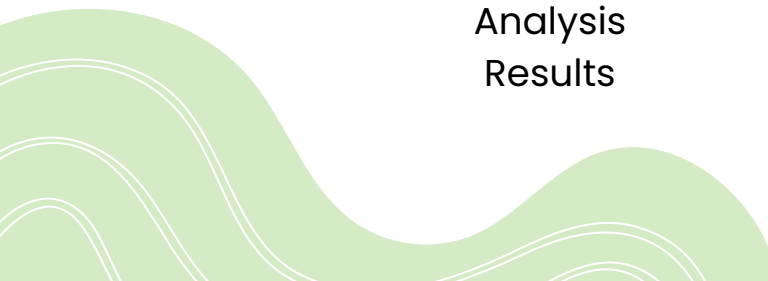
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Next Steps
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Sustainability Project Briefing

Sustainability Project in your Ski Resorts:

- How to adapt to climate change
- How to become more sustainable
- How to invest with long-term view

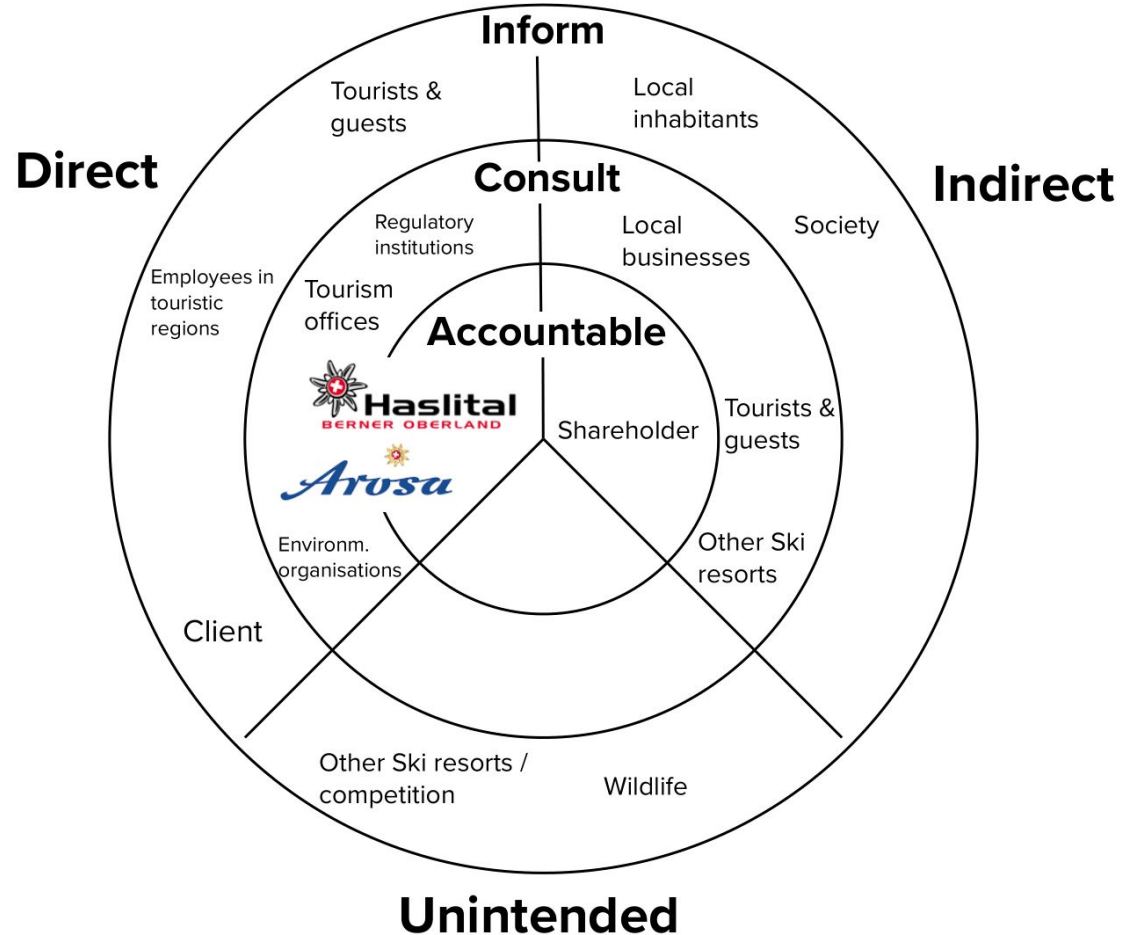
Bergbahnen
Meiringen-Hasliberg



Stakeholder Analysis

Key Stakeholders

- Ski Resorts / Client
- Local Businesses
- Tourists / Guests



Relevant SDGs






Hypothesis 1

Snow Days


There are fewer
natural-snow days
now compared to the
past



Hypothesis 2

Temperature

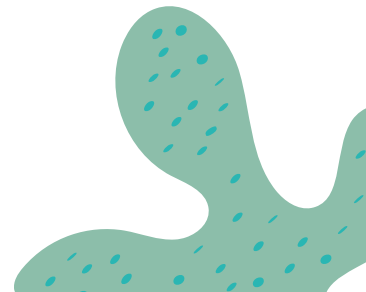
There is an upwards
trend visible within
temperature data



Hypothesis 3

Overnight Stays

During winter
seasons, the
overnight stays are
decreasing



Data Sources

Where did we get our data:

- IDAWEB from BFS
 - Snow depth (morning measurement at 6 UTC)
 - Temperature (daily minimum)
- STAT-TAB from BFS
 - Overnight Stay (monthly)

For Arosa and Meiringen/Hasliberg

Dashboard

- Multi-Page Application
- Built with Streamlit

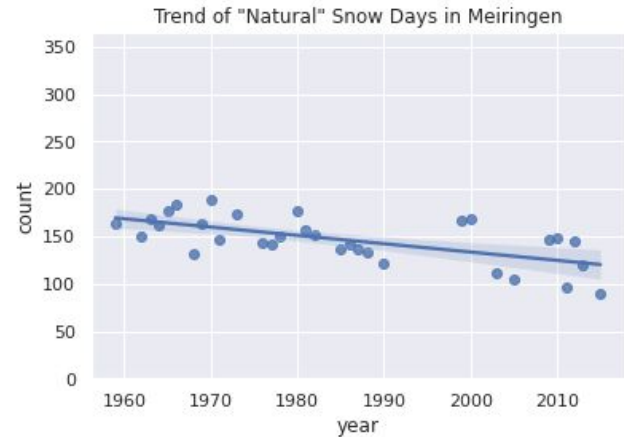
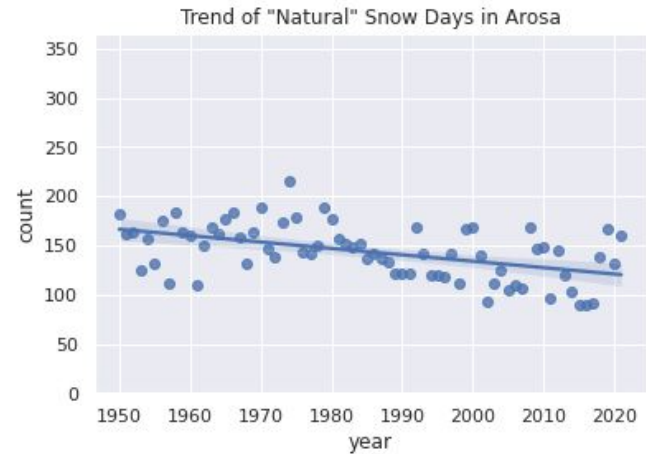


Dashboard WIP



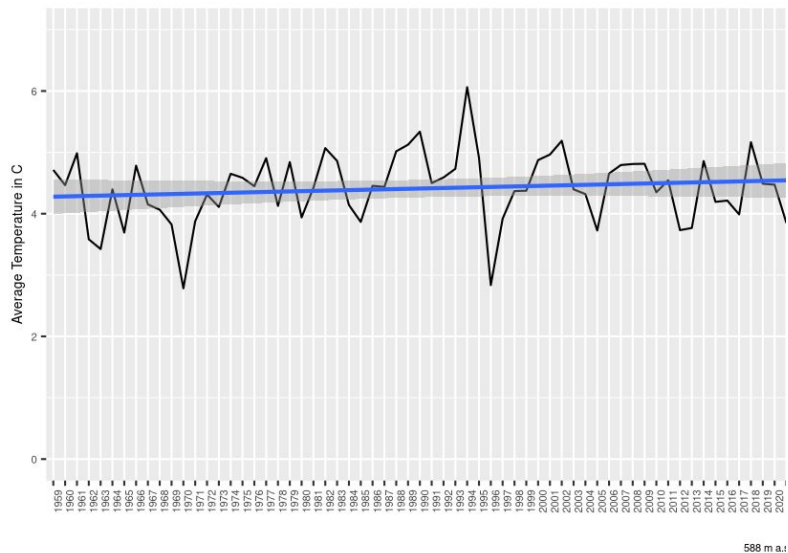
Snow Days

- Natural snow height to ski: **40cm**
- Natural snow required for technical snow: **20cm**
- Clear decreasing trend observed



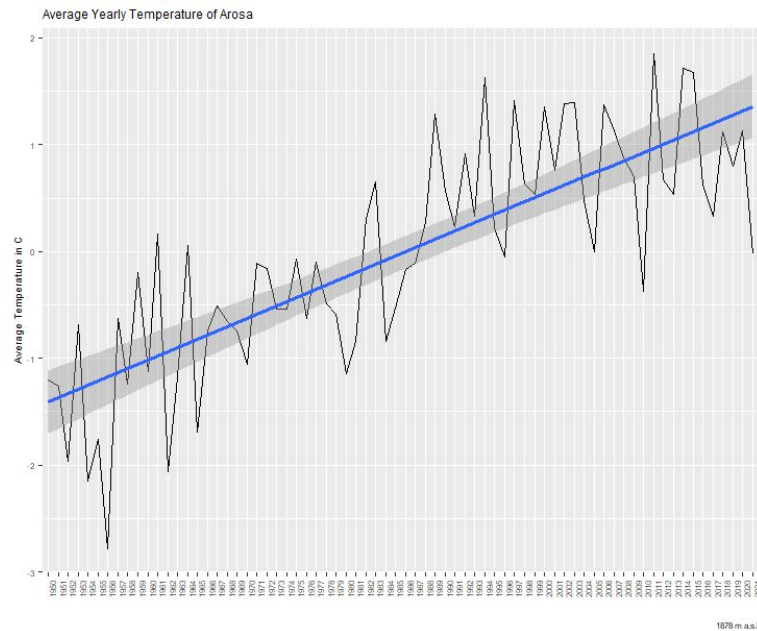
Temperature

Yearly average of min. daily temp



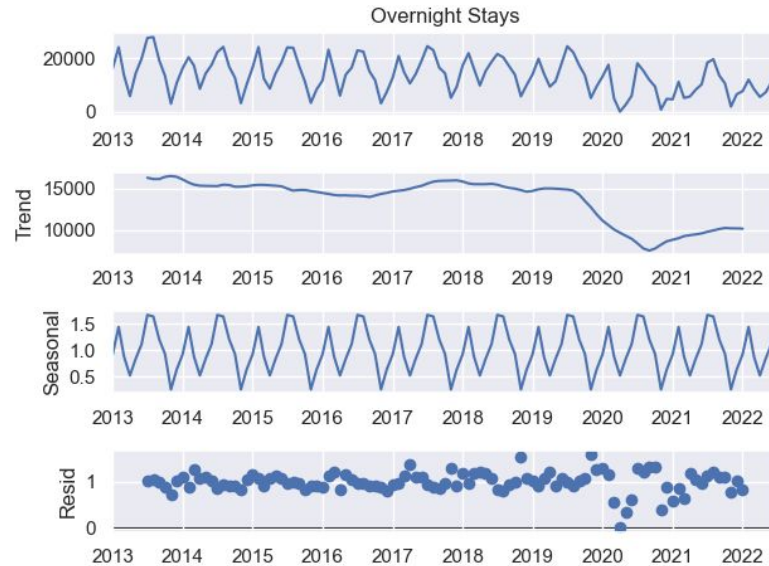
Meiringen

Arosa

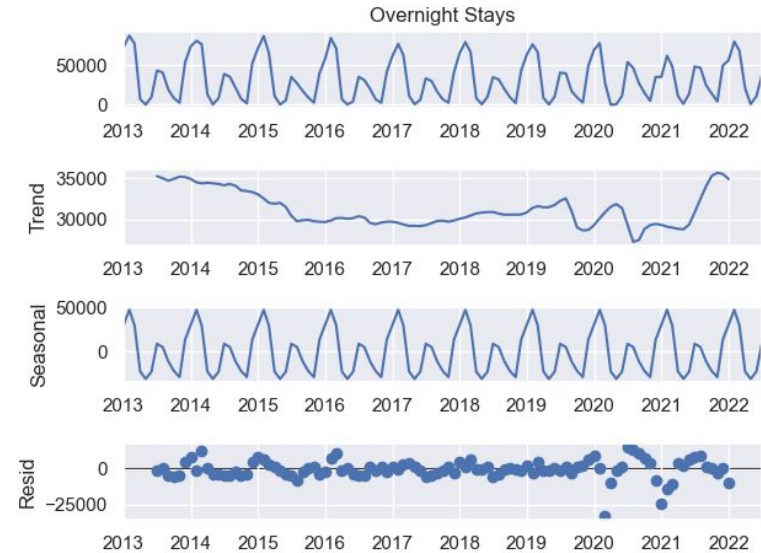


Overnight Stays

Meiringen



Arosa



Overnight Stays

- Summer: May - October / Winter: November - April
- Difficult Data Analysis due to the COVID-19 pandemic (Black Swan Event)
- The number of overnight stays between summer and winter converge in both ski resorts
- Recovery in 2022 after difficult pandemic years

Workplace Switzerland

Swiss hotel sector
shows signs of post-
pandemic recovery



Hypothesis 1

Snow Days

There are fewer natural-snow days now compared to the past



Hypothesis 2

Temperature

There is a upwards trend visible within temperature data



Hypothesis 3

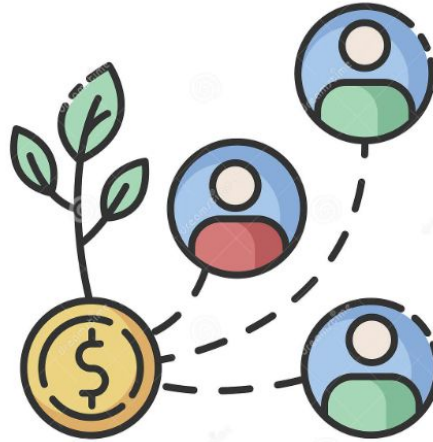
Overnight Stays

During winter seasons, the overnight stays are decreasing



Next Step (Financial)

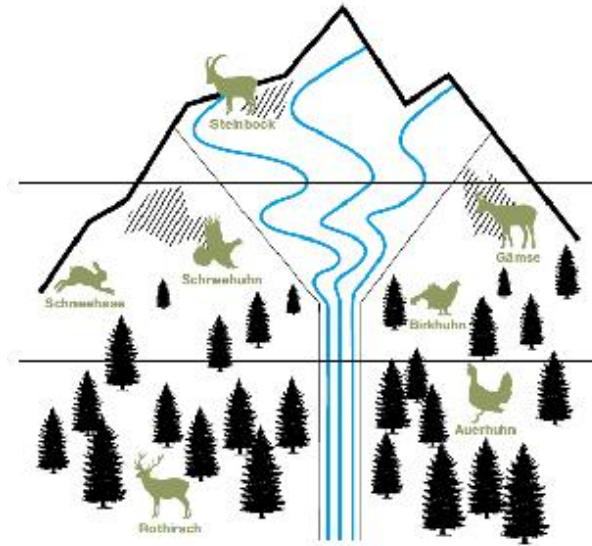
Investigate the **financial and environmental impact of snow guns** in Arosa and Meiringen/Hasliberg and create a **long-term sustainable investment strategy**.



Next Steps (Environmental)

Investigate the **impact of year-round** alpine resort **operations on wildlife** with respect to:

1. Resting periods
2. Mating season
3. Noise Pollution



Next Steps (General)

1. **Integrate other ski resorts** into the analysis to see the trends better
2. Do a **more precise analysis** and take more variables into the analysis
3. Further **develop dashboard** and make it accessible to all stakeholders



THANK YOU!

