Resilient Tourism / Sub Project 1: NaDIT / Workpackage 4: Use Cases

This document summarizes the most important findings from the use cases.

1. Use Case 1: Ticino – Visitor Behaviour Analysis

Within the Innosuisse Flagship project "Resilient Tourism", HSLU and Ticino Turismo examined visitor behaviour patterns to assess how data from different providers can be integrated and applied at destination level, and to derive insights into possible business models. The use case followed five stages: ideation (Crazy 8 workshop with NaDIT partners), validation, selection (Ticino Turismo as partner, use case specification, MVP), implementation and learnings.

Data from Swisscom (heatmaps, dwell times, tourism API), Mastercard (Tourism Insights, GeoInsights), Intervista (demographics), Guidle (events) and the FSO were combined in Snowflake via CSV uploads and APIs and analysed at cantonal, regional (Bellinzona e Alto Ticino) and POI level (Piazza Grande, Locarno). Results were delivered as a narrative Streamlit data story for non-expert audiences and an interactive Tableau dashboard for data exploration.

Ticino Turismo particularly valued the integration of data sources, the dashboard's interactivity and the analyses based on Mastercard and Swisscom indices. It preferred the interactive dashboard over the data story, whose written content is static. POI-level data with a focus on event impact was seen as especially interesting.

Key learnings: define objectives and audience early, secure granular data from the start and use feedback loops. Building infrastructure for diverse datasets is time-consuming, and the choice of technology stack is critical (accessibility, cost, technological maturity). Combining absolute values and indices across granularities is challenging, and missing data standards (e.g. inconsistent definitions) are a major obstacle.

2. Use Case 2: Valais – UCI 2025 Mountain Bike World Championships: Event Impact Analysis

Within the Innosuisse Flagship project "Resilient Tourism", we analysed the impact of the UCI 2025 Mountain Bike World Championships in Valais. The focus on event impact came directly from the first use case (Ticino – Visitor Behaviour Analysis), where Ticino Turismo had highlighted the event impact analysis as especially interesting. The second use case therefore produced a targeted, data-driven complement to the survey- and model-based economic impact study by Ernst & Young (EY). The data was meant to validate EY's figures and add KPIs such as visitor numbers per event location, dwell time and spending by visitor origin.

Data from Swisscom (Heatmap API on 100×100 m tiles, Dwelltime API on 500×500 m tiles, Tourism API for custom regions), Mastercard (GeoInsights, indexed spending on 2018 as the base year) and swisstopo were processed in Snowflake and Python. The analysis compared calendar weeks 36–38 in 2024 and 2025, at cantonal level and for seven regions linked to the race stages. For regions covered only by heatmap data, a regression model based on population density and tourism intensity was used to estimate comparable people counts. The results went into an Event Impact Report built for side-by-side comparison with the EY study, plus an interactive difference map (2025 vs. 2024).

Visitor numbers in the canton grew only slightly (+2.25%), but most event regions grew clearly, by up to +19%. Crans-Montana fell (−11%) because of a base effect: the Omega European Masters took place there in 2024. The visitor profile and dwell times stayed largely the same. Spending shifted between categories rather than rising overall: bars and nightlife (+42%) and general merchandise (+26%)

increased, while accommodation (−23%) decreased. This points to a crowding out effect, with event visitors replacing the usual tourists.
Key learnings: event effects only show at regional or POI level and are masked at cantonal level. Baselines must be chosen carefully, because other events can distort them. Uneven data coverage between regions must be bridged with modelling. Indexed spending data only supports statements within a category, not about total spending. Card-only transaction data (no Twint or online payments) limits how complete the economic picture is.