The experience of Eurac Research and South Tyrol region with spatial analysis

Workshop A „ESRI & South Tyrol”

Anna Scuttari

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Eurac Research is a private research centre founded in 1992 in Bozen (South Tyrol - IT)
Our Research Themes

The Richness of Diversity

A Healthy Society

Good Regions to Live In
The Autonomous Province of Bolzano – South Tyrol

- Autonomous Province in the Italian Alps
- Approximately 500,000 inhabitants
- 5 small towns + rural areas
- Dolomites UNESCO WHS
- Approximately 7 million tourist arrivals
  - 4.4 days on average

(Source: Cavallaro, Ciani, Nocera, Pretenthaler, Scuttari, 2016)
Main sources for mapping in South Tyrol

Sources
- Geobrowser (external source)
- Geokatalog (external source)
- Eurac’s Sentinel Alpine Observatory
- ASTAT – Provincial Statistical Office
- ISTAT – National Statistical Office
- Primary data from surveys
Eurac’s mapping projects –
Some examples
Projects (and Eurac units)

- ZTS2030
  - Center for Advanced Studies
- Dolomitesvives
  - Center for Advanced Studies
- Belluno Marketing Plan
  - Center for Advanced Studies
- Architectural Governance
  - Institute for Regional Development
- Report of the State of the Alps IV and V
  - Institute for Regional Development
- New geographies of the Alps
  - Institute for Regional Development
- ...
TOURIST ATTRACTIONS

(Source: ZTS 2030)
ROI of HOTELS

(Source: ZTS 2030)
CLUSTER ANALYSIS (D)

(Source: ZTS 2030)
CLUSTER ANALYSIS (S)

(Source: ZTS 2030)
FACTOR ANALYSIS (S)

(Source: ZTS 2030)
TRAFFIC ANALYSIS

(Source: DolomitesVives)
BENCHMARK ANALYSIS

Tourism intensity

(Source: Belluno Marketing Plan)
BENCHMARK ANALYSIS

Tourism density

(Source: Belluno Marketing Plan)
BENCHMARK ANALYSIS
Second homes
(Source: Belluno Marketing Plan)
BENCHMARK ANALYSIS
Land cover (1990)
(Source: Architectural Governance)
BENCHMARK ANALYSIS

Land cover (2006)

(Source: Architectural Governance)
BENCHMARK ANALYSIS

Average length of stay

(Source: RSA IV)
INNOVATIVE ANALYSES
Mapping Travel Time

(Source: New Geographies of the Alps)
Experiences with GIS data

(Source: Ne|ǁGeographies of the Alps)
Discussion

- GIS mapping is a powerful tool for
  - Understanding spatial distribution of phenomena
  - Understanding trends in time and space
  - Benchmarking geographical units
- Future challenges for us are
  - Measurements (not only representations)
  - Possible uses of satellite data