# TOURISM IN SARDINIA

#### Insights for future development

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# Introduction

### Background

Sardinia is an Italian island placed between the Italian peninsula and Spain. It is the second-largest island in the Mediterranean Sea, after Sicily, with an area of 24,100 square kilometres. Well known for its rich environment and in particular coasts, it has one of the pillars of its economy in the tourism industry. In the past, one of the main issues regarding this sector has been the important difference of tourist attraction capability within different areas in the region and this has been mainly due to various business development strategy put in place by operators and public policies. Nowadays tourism industry is allover suffering for Covid-19 consequences and even more in Sardinia because of transport limitations and costs. Therefore, it is urgent to define new strategies and business models to cope with this tragic crisis.

#### Problem

Why some areas, like *Costa Smeralda* in the North East of the island, can attract a lot of tourists and some others are almost unknown even with beautiful landscape and environmental attractions? Of course, we are not at the starting point so lots of investments spread the differences among the different areas, but can we still find some common characteristics to suggest development paths? In this era of social distancing, could there be the opportunity to link famous and unknown areas for a mutual benefit? To discover it the base is to identify key features in different zones and group them in clusters.

#### Interest

Tour operators are the stakeholder more directly interested, but the national, regional and local authorities are involved too to promote the economy of the island. At the same time all related activities, such as building firms and farmers. Due to the importance of the tourism sector in the regional economy, we can say that Sardinia, as a whole, is interest in everything can bring advantage to this subject.

# Data acquisition and cleaning

#### Data sources

Data regarding incoming tourists are provided by the regional administration in the Opendata Sardegna portal.

Main datasets, in .csv format, are:

- Tourist movements in Sardinia 2019 by municipality
- Sardinia 2019 accommodation capacity

Population by municipality is available in a Wikipedia website while geographic coordinates can be found here.

These datasets will be matched with the Foursquare location data to explore and compare to find patterns and similarities. Clustering will be used to make it possible.

# Data preparation and modelling

The main problem regards data not appropriately recorded. This is clear in the table "Tourist movements in Sardinia 2019 by municipality" where in 3041 rows the occurring month is reported as "Other".

After the data cleaning indexes must been checked and some tables will be merged to simplify the analysis.

Then feature selection will be executed and values will be normalized to obtain comparable results.

The aim is to obtain clusters to show the "touristic capacity" of the various municipality in Sardinia.