

BEACON SÜDTIROL ALTO ADIGE

Frequently Asked Questions

this Document summarizes the Frequently Asked (FAQ) questions about the Beacon Südtirol - alto Adige project.

What are the primary aims of the Beacon Südtirol Alto Adige project?

The main objective is to create a community of IoT developers, researchers and experts and, at the same time, to promote awareness of Alto Adige as an area of excellence in the creation and development of new applications and technologies.

What are the fundamental aspects of the project and what is the time-frame for implementation?

After analysing the market and infrastructural situation of the IoT world (e.g. beneficiaries, technology, most interesting projects ...) we will proceed with the installation of the Beacon and LoRaWAN devices. Installation will be completed by 31 January 2020.

What are the time-frames for the Beacon Südtirol - Alto Adige project?

The next stages of the **Beacon Südtirol - Alto Adige project** will be the following:

1. Creation of a state-of-the-art analysis of the actual and future technology of the IoT sector.
2. Realization of an analysis of market and of projects in the IoT sector.
3. Installation of a LoRaWAN testing network at the NOI Techpark.
4. Installation of the beacon:
 - a. installation of the first 200 beacons in the first 4 pilot areas: NOI Techpark, the Municipality of Merano, the Municipality of Prissiano and the Castelfeder – Salorno Tourist Association,
 - b. installation of the remaining 3200 beacons by the end of the summer 2019.

In parallel, **working groups are currently studying a variety of ideas** that could use or benefit from beacons. Some examples include:

1. **Integration of a Recommendation System in the Südtirol Guide** which, through the use of beacon technology, can improve suggestions of possible points of interest for the tourist in South Tyrol. The plan is to use beacons (both physical and virtual) to improve recommendation algorithms by introducing a validation process for locations which are saved as favourites and which tourists actually visit. The Free University of Bolzano will also be involved in this aspect;
2. **Creation of a gamification module** which also integrates the beacon technology and which, through gaming, allows one to:
 - a. Become better acquainted with South Tyrol by giving greater prominence to lesser-known or visited places which are, nevertheless, of interest and appeal.
 - b. Promote small local artisans who produce traditional products of appeal and quality through the integration of innovative features.
 - c. Give greater visibility to venues and shops which offer traditional, quality products;
 - d. Promote understanding and awareness of the South Tyrolean culture;
3. **Establishment of collaborations with high schools** in order to extend the awareness and utilisation of cutting-edge technologies to the talents of the future:
4. **Cooperation with the local health service** to create a service which, in combination with an app for booking visits and examinations, guides the patient to the clinic or to the centre where the patient will undergo medical examination and/or book tests.

What risks does the technological complexity of the project entail?

There are no technological impact risks. The most important concern, for which technical / regulatory support will be guaranteed, is adaptation of the developed applications to comply with GDPR.

What are some use cases of beacons which have been trialled to date?

In South Tyrol, the public transport company Sasa uses beacons for continuous monitoring of the location and status of its vehicles. Museums, shops and installations of various types are also planning to use the beacon network: they are essential whenever the GPS localisation cannot be used, such as, for example, indoor areas. il flusso di dati pregiati e validati saranno sempre più essenziali per

fornire servizi migliori, a costi di esercizio più contenuti e con possibilità di sviluppo e nascita di idee creative e nuovi modi di fruizione del sistema».

Do any apps in South Tyrol already use beacons?

Yes, Sasa. (see the study case: <https://beacon.bz.it/wp-2/studycase-sasa/>)

How will the results of the project be measured?

Result measurement will be based on the extension of services of benefit to citizens. The pertinent data will be the number of municipalities involved, the number of applications developed and the number of users.

What is a beacon and how does it work?

A beacon is an electronic signal which broadcasts its presence continuously. It can be compared to a lighthouse in navigation: A receiving device (a standard smartphone), detects and identifies the presence of a beacon. This data can then be used by a variety of ad-hoc applications.

What are the installation and management costs of the beacons?

The Beacon Südtirol project - Alto Adige (CUP: B31H17000060001) is financed under the ERDF 2014-2020 call for proposals programme. Accordingly, the Autonomous Province of Bolzano will be installing the 3500 beacons in the area and placing them at the disposal of all the companies that want to use them, free of charge.

Who is in charge of managing beacon-related content?

Each developer can use contents as appropriate to their needs, and undertake responsibility for management of the content they develop.

How will privacy be managed?

We have a specific disclosure, which can be consulted online at <https://beacon.bz.it/wp-4/legalaspects/>.

What certification is available for beacons?

All beacons are certified to European standards (CE). No device installed is in the prototype stage.

What is the IoT and how does it work?

IoT is the acronym for 'Internet of Things.' It is the internet connectivity to objects which are not classified as computers, from refrigerators to televisions, industrial machinery, cars and snow cannons.

What are the typical uses of IoT?

From satellite navigation for traffic management, movement of stock in warehouses, agriculture and pasture management, smart home management ... every area of our life is permeated by objects which are connected to the internet.

Are there any plans to develop public IoT infrastructure?

After completion of the Beacon and LoRaWAN networks, we will begin trialling the new generation cellular network technology of 5G in the local area.

What are the benefits of joining the Beacon Südtirol - Alto Adige community?

The opportunity to participate in all Community meetings. NOI Techpark will provide developers with support in handling the questions and requirements that arise as the project develops. On a more general level, NOI Techpark will link up people with necessities together with people who offer solutions to those necessities.

What are the methods of cooperation between the participating company and the promoters (Autonomous Province of Bolzano and NOI Techpark)?

Developers and companies who are part of the Beacon Community will have a privileged relationship with NOI Techpark. They will have the opportunity both to share their needs and to receive valuable feedback and contacts (e.g. experts,

research centres, laboratories, etc.) that will be useful in the creation of innovative projects and products. NOI Techpark also offers community members the opportunity to let Public Administration know of their needs.

What resources are supplied to companies participating in the project?

In addition to the skills and synergies created through the Community and NOI Techpark, all material produced will be published under Open Source Licenses or Creative Commons, including software manuals and documents produced in all meetings.

What costs will the company involved in the project incur?

None.

What guarantees are in place to ensure that the investment of companies participating in the project will be sustained in the long-term?

The Autonomous Province of Bolzano guarantees that the beacon network will be operational for a minimum of 5 years after implementation has been completed.

Is there any specialised training for staff?

Detailed documentation of all technical specifications for beacons will be available. An e-mail assistance service will also be launched.

How can I use the resources that the project provides?

This information is available in the project outputs section of the project site (<https://beacon.bz.it>). If you need to find out more about a specific topic, please email your request to info@beacon.bz.it.