



# BrennerLEC

EU-LIFE project “Brenner Lower Emissions Corridor”

LIFE15 ENV/IT/000281

## Project summary

**Duration:** 01/09/2016 - 30/04/2021

**Budget:** € 4.018.005,00

**EU Contribution:** € 1.922.772,00

**Project Consortium:**

Autostrada del Brennero – Trento (*Project Leader*)

Agenzia provinciale per l’ambiente – Bolzano

Agenzia provinciale per la protezione dell’ambiente – Trento

Università degli studi di Trento

IDM Südtirol / Alto Adige – Bolzano

CISMA – Bolzano



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The BrennerLEC project is carried out in the context of a sensible area like the Alps with the objective of creating a holistic concept of “*Lower Emission Corridor*” (LEC) for the A22 highway. The project aims to implement and validate a set of different dynamic policies that have the goal to provide a clear environmental benefit in terms of air quality, climate protection and noise abatement, covering:

- **dynamic road capacity management (BLEC-ENV)**, which aims to reduce speed limits in correspondence of intense traffic flows and temporarily introduce an additional third lane during nearly saturated traffic conditions;
- **dynamic speed limits management (BLEC-AQ)**, to be applied to light vehicles as a function of the current and predicted air quality conditions;
- **dynamic integrated traffic management (BLEC-LEZ)**, which aims to improve the coordination in the management of travel information channels in correspondence of urban areas so to guide road users on recommended routes.

The pilot demonstration is going to be carried out on an extensive **pilot test area of the A22 highway**. The project aims to give a significant contribution to the development of the environmental policies, even through the operational modalities with which these measures are going to be introduced. The pilot road stretches and the expected benefits to be achieved are:

- **BLEC-ENV** (road stretch of about 90 km from Bolzano North to Rovereto South) – reduction of emissions up to 40% for light vehicles and up to 60% for heavy vehicles;
- **BLEC-AQ** (road stretch of about 20 km from Egna to San Michele) – reduction of light vehicles’ emissions up to 25% for NO<sub>x</sub> and 20% for CO<sub>2</sub>. Reduction of total emissions of about 8% for NO<sub>x</sub> and 6,4% for CO<sub>2</sub>, with a reduction of about 5% of the average concentrations of NO<sub>2</sub> in aria. Reduction of 1-2 dB(A) of noise levels;
- **BLEC-LEZ** (road stretches in correspondence of the North / South entry gates of the cities of Bolzano, Trento e Rovereto) – the expected reductions are of the same order of magnitude as for the reductions expected in the road stretch BLEC-ENV.

The objective of BrennerLEC is to obtain the **best possible compromise in terms of environmental benefits, quality of service (including road safety) and user acceptance**. Extensive monitoring activities are foreseen, covering different matrixes: environment (air quality and noise), transport (traffic data) and





social impact of the measures. Wide information activities are going to target the local population, the world of associations, the economic categories and the public bodies. The divulgation of the results is also intended to address key stakeholders such as the Ministry for Environment, the Ministry for Transportation, the EUREGIO network, ASFINAG and the environmental agencies of Veneto, Lombardia and Emilia-Romagna regions. Another objective of the project is the production of concrete recommendations for exploiting this approach not only to the Alpine corridor of the A22 highway (Affi – Brenner), but also to the whole alpine corridor transiting through the Brenner Pass (Affi - Kufstein), in cooperation with ASFINAG.

The **most innovative aspect** of the project is the development of a **forecasting model** of meteorological, environmental and traffic conditions which is going to be at the basis of a proactive decision support system (DSS) aiming at optimally managing traffic flows and reducing environmental impacts in a very sensible area like the Alpine valleys.



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