Life Safe Crossing

LIFE SAFE CROSSING
PREVENTING ANIMAL-VEHICLE COLLISIONS

www.life.safe-crossing.eu

HAGAMOS LAS CARRETERAS UN LUGAR MÁS SEGURO PARA TODOS.

“El proyecto LIFE SAFE-CROSSING está cofinanciado por el programa Life de la Unión Europea”

The main objective of the project is to reduce the impact of roads on some of the priority species in 4 EU countries: the Apennine brown bear and wolf in Italy, the Iberian lynx in Spain, and the brown bear in Greece and Romania.

The target species of this project are seriously threatened by linear infrastructures, both in terms of the direct mortality they cause and the barrier effect they generate on the mobility and connectivity of the population centres of these species.

In Italy, it is estimated that roads account for 13% of total mortality in the Apennine brown bear. In the case of the Iberian lynx, in 2014, road accidents accounted for 64% of known lynx deaths. In the case of brown bears in Greece, mortality and the barrier effect generated by motorways and roads are estimated to affect 30% of the local bear subpopulation mortality is caused by road kills. In Romania in 5 years 20 bears were killed on a 40 km stretch of the main road between the cities of Brasov and Bucharest.

In the LIFE STRADE project, an innovative device has been developed to prevent wildlife roadkill. This device was tested in 17 locations reaching a 100% reduction in roadkill mortality. AVC PS Devices (Animal-Vehicle Collision Prevention Systems)

One of the main reasons for road crashes is related to the lack of attention paid by drivers. Therefore, one of the objectives of the project is to increase the level of attention of drivers in order to reduce the risk of collisions.

Development of specific signals using neuromarketing techniques with the aim of generating signals that, when viewed by drivers, generate a decrease in vehicle speed.

The main actions of the project are to identify and analyse the distribution of roadkill, to identify areas of high risk of roadkill and the core areas of the distribution centres of the target species that are crossed by roads, with the risk that this entails.

Map and analyse existing road infrastructure that can be used by wildlife to cross safely from one side of the road to the other.

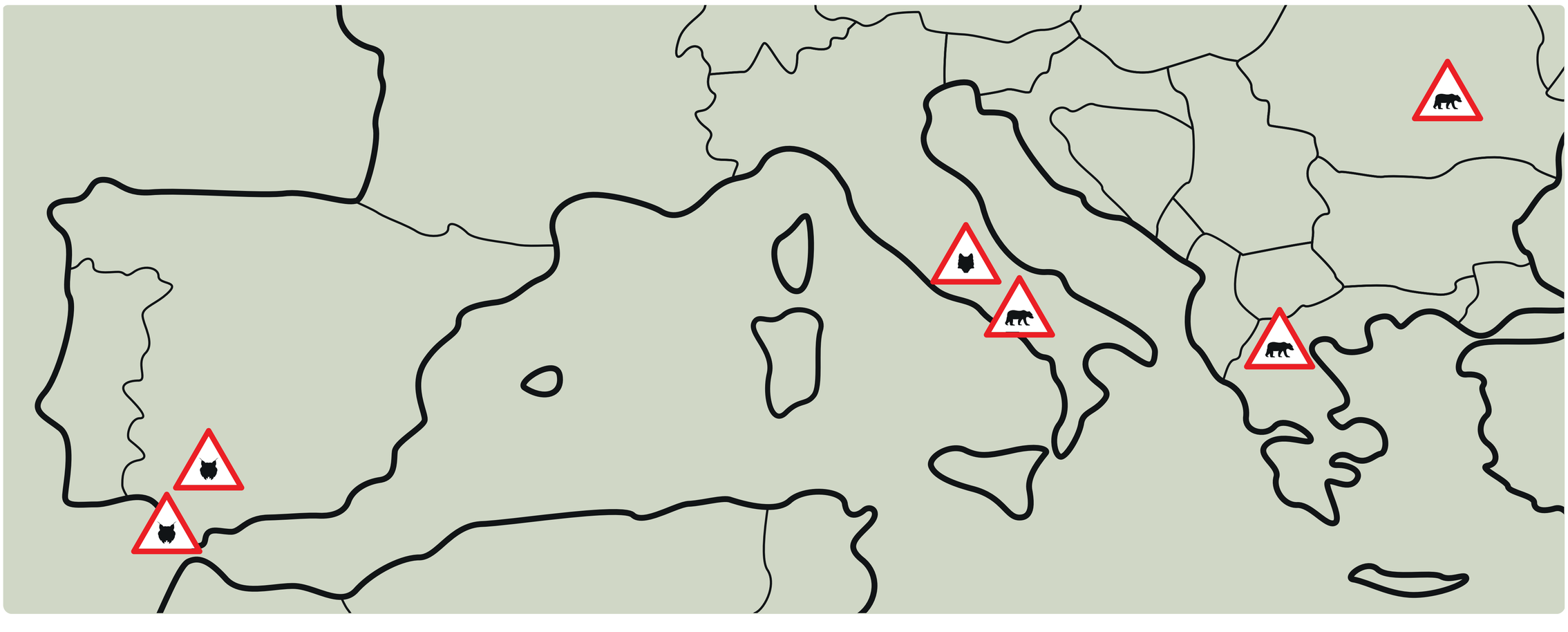
Describe the proposed segments for installation of AVC PS devices. Identification of wildlife crossing points and analysis of traffic volume and speed.

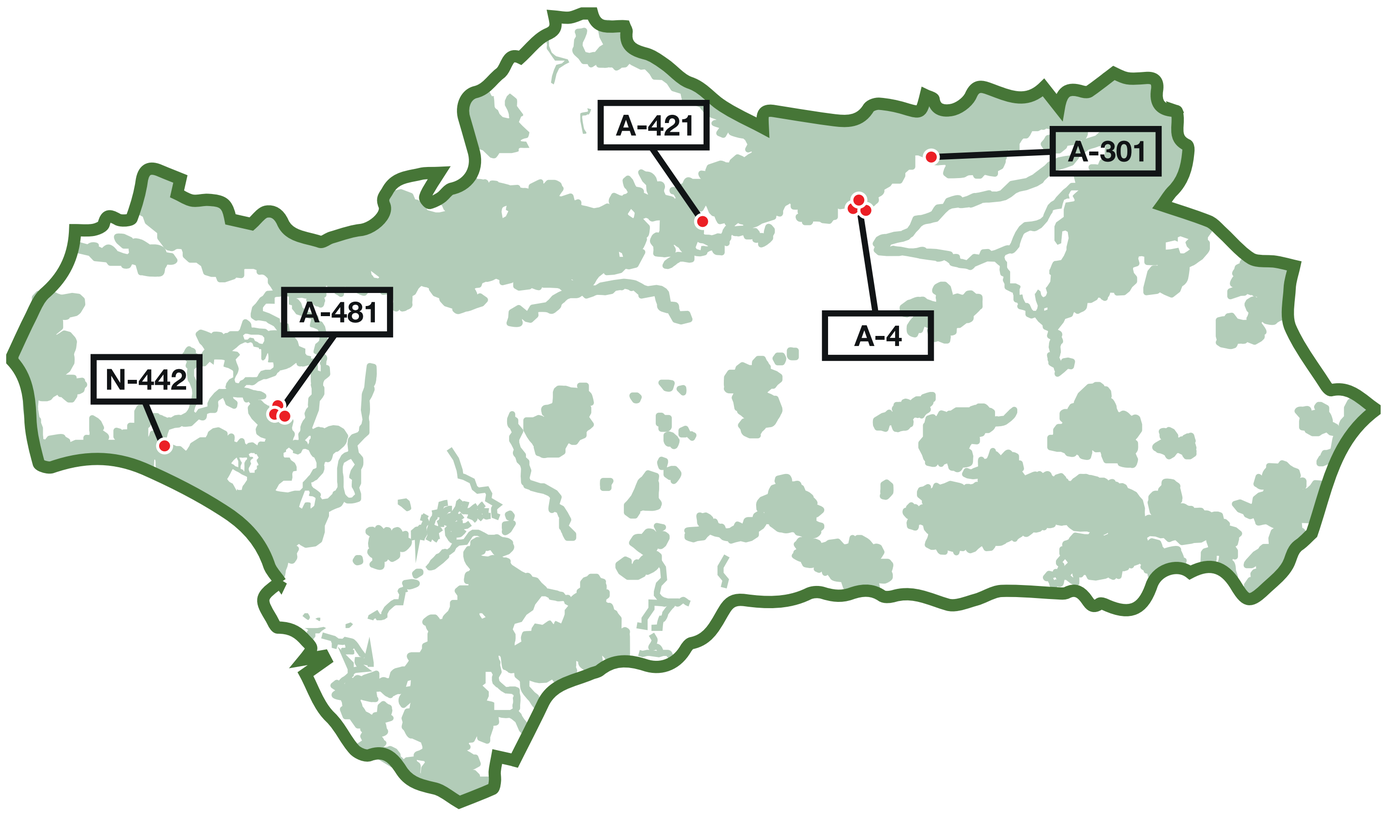
Generate a geographic database of the collisions points. Development of an App that reports real-time information to the user.

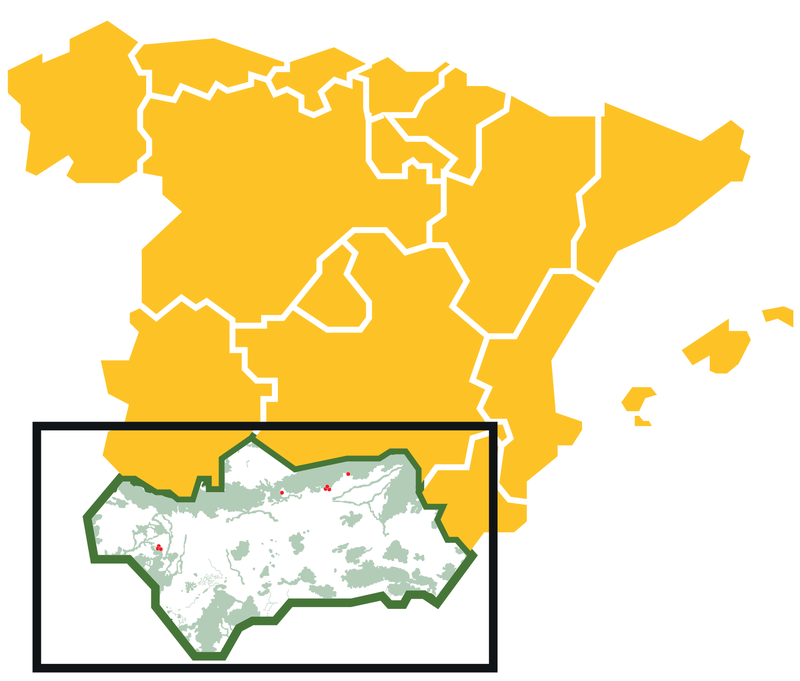
Installation of AVC PS devices. At least 27 devices are expected to be installed in the 4 working areas of the project (Italy, Spain, Greece and Romania).

Actions to enhance connectivity between the main areas of distribution of target species. Adaptation of subways and roadside interventions.

Developing a video game to support outreach activities
Development of a project website: https://life.safe-crossing.eu/
Establishment of a Collaboration Network with other projects (IENE 2020, LYNXCONNECT, etc...).







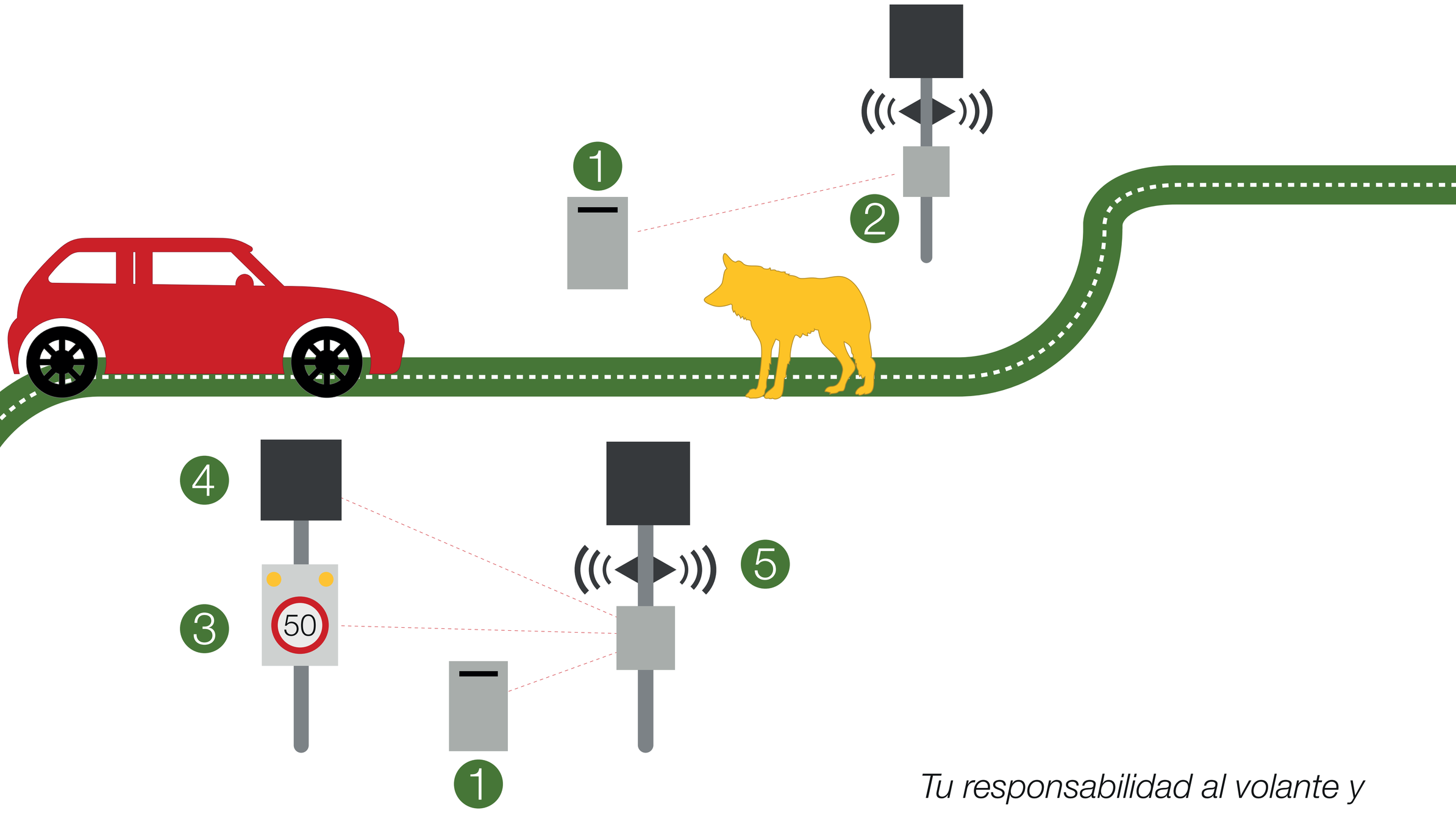
One of the main objectives and achievements of the project will be to ensure that the actions and products generated by the project are transferred and replicated in other projects and/or administrations or bodies with competences in wildlife management and conservation, as well as in institutions with competences in the management/maintenance and conservation of roads and/or motorways/highways.

Other objectives expected at the end of the project include: intervention to prevent roadkill by at least 400 km, a 50% reduction in roadkill mortality, the adaptation of at least 80 structures for use by wildlife, a reduction in the speed of vehicles by at least 30% in response to preventive measures (panels, AVC devices, etc.).

The socio-economic impacts of the project can be directly reflected in the following issues: cost of damages caused to vehicles, costs caused by injuries and/or deaths in animal/vehicle collisions, costs for the competent authorities for damages caused by collisions, costs for insurance companies. In 2010 in the Region of Umbria in Italy alone, the estimated costs for compensation for damage caused by wildlife on roads amounted to €1.2 million.

Installation of virtual fencing to prevent wildlife access to the road when vehicles are present. This system is similar to traditional reflectors. These are electronic devices that are installed on roadside signposts. Car headlights approaching the devices (at a distance of about 300 metres) activate them. These devices emit a series of lights and ultrasound to scare wildlife away from the road.

The operation of the AVC devices is as follows: An infrared sensor or thermal camera (1) registers the presence of an approaching animal and sends this information to a central unit (2). This in turn triggers a series of warning signals to drivers (3), proposing a reduction in speed to a speed appropriate to the road and the circumstances (presence of an animal close to the road with the consequent risk of collision). Another sensor (4) measures the speed of the vehicle. If the speed decreases, the system stops acting. If the vehicle does not slow down, the radar sends another signal to the central unit (2) which activates acoustic signals in order to scare away wildlife near the road.



Tu responsabilidad al volante y la tecnología desarrollada por ***LIFE SAFE-CROSSING*** *contribuye a salvar vidas..*

1. *Sensores de detección de animales.*
2. *Unidad Central.*
3. *Señales de aviso para conductores.*
4. *Paneles solares de alimentación.*
5. *Dispositivo ahuyentador acústico.*