

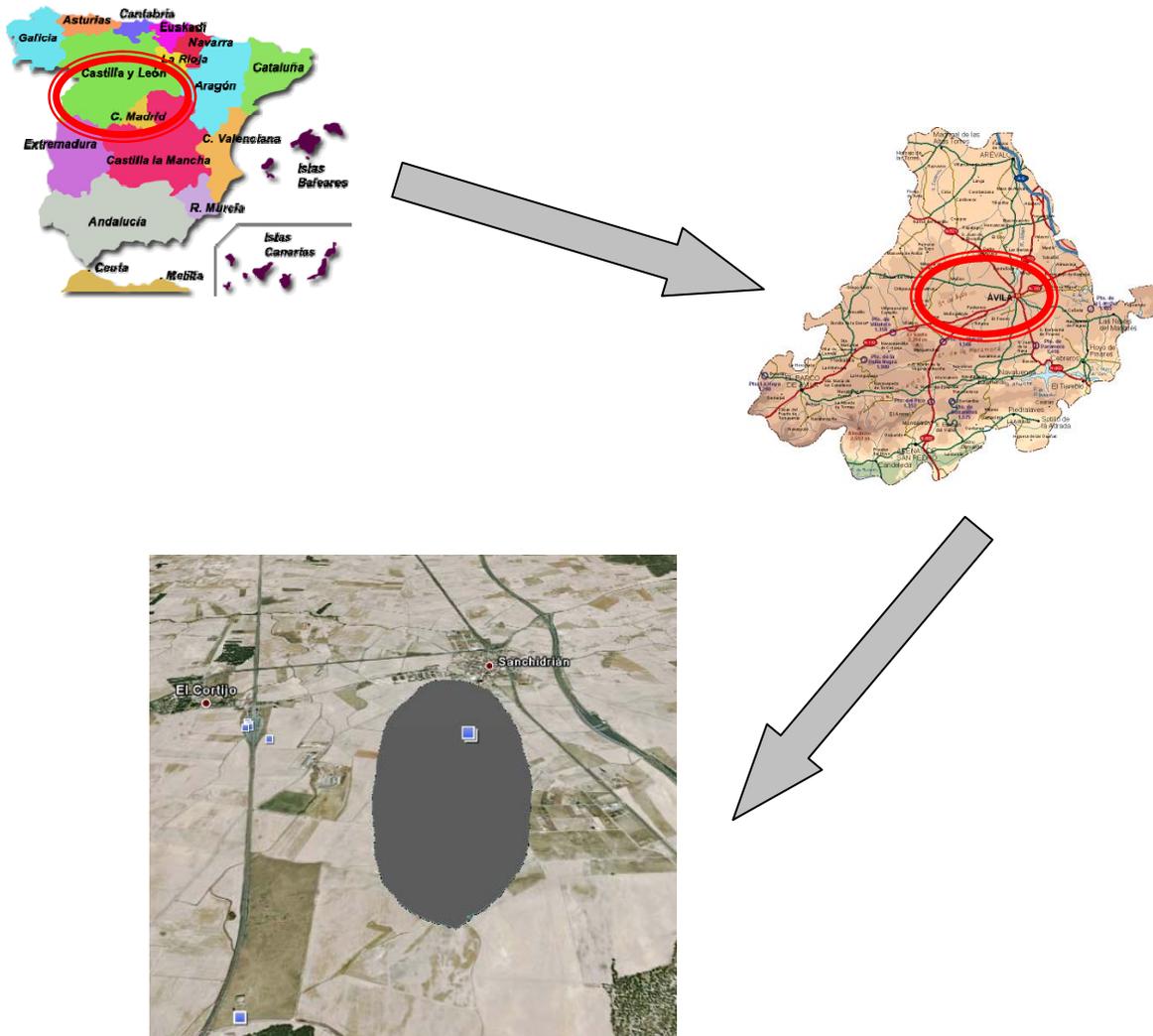
## Local project in Avilà – SPAIN

The selected project in Avila is an urban development project in a rural area. The village that is going to shelter the project is Sanchidrian, which is a small municipality closed to Avila city and situated between two important urban areas (Avila and Arévalo).

Sanchidrian has only 733 inhabitants and 26 km<sup>2</sup>. The main activity in Sanchidrian is agricultural because it is located in a land with good soils and a fit climate.

The chosen project is going to transform an area dedicated to agricultural until now into an urban area with more than 200 houses, annexed buildings and a golf ground. This project is second residence urbanization, like many other projects in Spain, where the building sector has been focussed in this market during a long time.

The location of the project can be seen in the following pictures:



The project has the required features by ENPIRE because:

- It is in a preliminary stage of design. The project has the required license to build and the constructor is already working in the first stage, the land movements.
- There are 48 foreseen buildings in the first stage, but the next steps in the project are going to build 200 houses, a golf ground and some annexes buildings like hotels, spa...
- Currently, the project has fulfilled the laws related to energy saving and energy efficiency, but the promoter is interested in improving the energy behaviour of his houses.
- There are not similar experiences in the area, so the results obtained in this project will be applied in other projects because it is a usual way of building.

Improvements in the project will be focussed in the following aspects:

Certificación Energética de Edificios inicial/definitiva	
MÁS	
A	➤
B	➤
C	➤
D	➤
E	➤
F	➤
G	➤
MENOS	
Edificio: _____	
Localidad/Zona climática: _____	
Uso del Edificio: _____	
Consumo Energía Anual: _____ kWh/año (_____ kWh/m <sup>2</sup> )	
Emisiones de CO <sub>2</sub> Anual: _____ kgCO <sub>2</sub> /año (_____ kgCO <sub>2</sub> /m <sup>2</sup> )	
<p><i>El Consumo de Energía y sus Emisiones de Dióxido de Carbono son las obtenidas por el Programa _____, para unas condiciones normales de funcionamiento y ocupación</i></p> <p><i>El Consumo real de Energía del Edificio y sus Emisiones de Dióxido de Carbono dependerán de las condiciones de operación y funcionamiento del edificio y de las condiciones climáticas, entre otros factores.</i></p>	

- Improvement of the energy qualification of the project. Currently, the project has the letter "D" in its energy qualifications. This letter is the minimum demanded to build in Spain, but we want to obtain an energy label with letter C, B, even A.
- Involving the municipality in the project is a priority, because they will be able to give their opinion regarding to the installations that will be owned by them (public lighting system...).
- Some bio-construction criteria will be taken in account to achieve the results.
- Moreover, renewable energy equipments and energy efficiency systems will be introduced in the houses once the vision document is signed. Some examples of proposed technologies are: high insulation; high performance windows and doors, efficient lighting, solar energy systems, biomass, co-generation ...
- Around 30% energy savings are estimated to the proposed improvements of the project.

- The certified software to calculate the qualifications are LIDER and CALENER.

