





NSMAR project will enable better energy consumption and carbon emissions forecasting when looking at options for city development. Using the INSMART methodology more accurate predictions can be made for energy consumption on new and existing developments taking into account housing stock, transport, public buildings and spaces and options for renewables.

Four European cities are working in partnership towards a sustainable energy future.

Évora – Portugal

Cesena – Italy

Trikala – Greece

Nottingham – UK



The project group is comprised of municipalities, academics and technical consultants.



Current Objective - To develop sustainable energy action plans for each partner city. A mix of sustainable energy measures to improve the energy efficiency of each partner city will be identified through the use of specialized tools and models.

Method

- Analysing the residential building stock energy consumption through surveys and modelling energy saving options.
- Analysing energy consumption in transport through surveys and modelling of alternative scenarios.
- Analysing energy consumption in urban spaces and public services; water, waste, street lighting etc and modelling energy saving options.
- Identification of potential renewable energy systems

Tools

- Developing an Energy Systems Model (based on TIMES) for an integrated analysis.
- Linking the TIMES planning model to Geographic Information System (GIS) Energy City Database.

Outcome

- New energy related data sets for each city
- Detailed energy related data for city GIS Maps
- Sustainable Energy Action Plan
- New methodology which is replicable on other cities

City GIS Energy Database

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