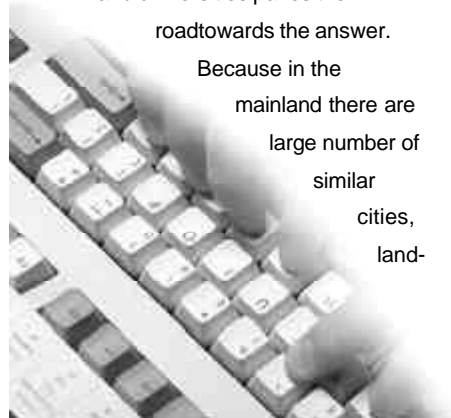


Islands, Telematics and Sustainable energy

Islanders need access to the current state of the art of commercially available sustainable energy technologies and procedures. In addition, the market of most islands is too small for standard activities ranging from education, training or commercial supply of innovative energy solutions. Finally, the characteristics and the requirements of an island may be different from those of the mainland. The needed services -information, education, supply, maintenance- cannot be founded in the mainland. Telematics can significantly help to allviate the above mentioned problems. People desiring a more sustainable energy system in their island -politicians, technicians, consumers, inhabitants- pose a series of questions that need appropriate answers, that often do not find in their island or even in the mainland, such as: Is there a possibility to improve the sustainability of the energy system of the island? If so, with what technologies? Where it has been succesfully implemented? Who has done it? How it was done? What new education and training is needed? Where it can be learned?

The answer to those questions, even when they are posed in the mainland, can be difficult but the concentration of people and resources such as libraries, businesses, and universities paves the road towards the answer.



Because in the mainland there are large number of similar cities, land-

Telematics is a vital tool to implement sustainable energy systems in the islands. It is so for many reasons. Most of the information on energy regularly available in the islands is either obsolete or inappropriate for todays majority of islands. The conventional dissemination of the innovative techniques and uses of the modern efficient and renewable systems is too slow -and often also too expensive- to allow the survival and modernisation of many islands. Islanders need access to the current state of the art of commercially available sustainable energy technologies and procedures.

scapes, farms, forests, lakes or regions it is more likely something has been done and that the information has been disseminated. We know islands do not have the same scale or mass factor than the mainland and so it is more unlikely something has been done in conditions similar to those of that specific island. The search for the desired answers to the questions becomes more difficult, lengthy and costly in the islands than in the mainland.

Fortunately todays telematics are of a great help for finding answers to the islands sustainable energy questions. Hundreds of islands can be looked for hints to the own island's problems. Moreover, their voice can be made heard -or better, their needs can be known- to distant authorities -national, European, worldwide- than can take action after knowing a need that withou telematics probably they would ignore.

Using telematics help to find people or businesses that can supply the sustainable energy goods or services not locally available.

But telematics has other important advantages. It can provide taylored education and training to remote areas, to a very small number of people, at a rate compatible wit the people's schedule and at much lower

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cost. Telematics for an office in a mainland city may be an option for a regular face to face course or seminar, or may avoid a trip to the library of the university. In an island telematics may represent avoiding weeks away from home and the office or days for a trip to the libray.

Islanders are used to navigate, to communicate with distant people and cultures. Islanders have often learnt how to use their resources -water, energy- in a sustainable way, sometimes applying their own methods and techniques. They can disseminate their knowledge or products using todays telematics.

There are also problems when using telematics to improve the sustainability of the energy system of islands. Those problems have to be known to be overcome whenever possible. In the first place, one has to learn how to use

telematics as is has to learn how to drive a vehicle and use it in a town.

The topics related to energy sustainability in islands have to be easily located to facilitate



non experts to find it. Good, friendly energy portals can be a real help.

Today's technology of telematics has to be improved for its massive use in most islands:

- Communications need not be faster but more reliable and dependable.
- Computers have to be insensitive to the grid cuts and voltage and frequency oscillations. PV systems can provide the dc current, getting rid of unnecessary transformers and power supplies too sensitive to actual island grid conditions.
- Software has to be communication line failure proof. Transmission has not to

stop when it fails just one message before the last one.

- Software has to be designed to minimize the changes on prior versions, avoiding unnecessary and frustrating re-learning, particularly to non frequent system users.
- Topics have to be dealt in a non discriminatory way (gender, race, culture, geographical location ...).

Easing the use of telematics in islands in the way described above could probably do more for island sustainability than providing grants to non-sustainable energy systems.

