

## Ricardo Bermingham hospital: an example of commitment to sustainability

Richard Bermingham Hospital located in the city of Donostia-San Sebastián (Spain) is part of the Matia Foundation. Matia Foundation is a social non-profit private foundation that provides services to geriatric elderly and / or disabled people. The foundation has the triple certification of **ISO 9001 Quality, ISO 14001 Environmental and Occupational Risk Prevention OHSAS 18001** for all its centers since March 2003 and the **Gold Q** management excellence (EFQM) in all centers and services, it is the proof of the quality of the services offered.



Bermingham Hospital is a medium and long stay of 103 beds specializing in geriatric care which treats patients from all Gipuzkoa and is equipped with 4 units that are clearly differentiated: Rehabilitation and Orthogeriatric Unit, Convalescence Unit, Psychogeriatric Unit and Palliative Care Unit (the first in the Basque Country).

In turn the center Bermingham has a residential unit of 59 beds, Outpatient Rehabilitation center, central kitchen and various central services and support.



In order to minimize the environmental impact of the building and the activities that take place in it, the centre has carried out a number of improvements in energy efficiency throughout the building, which consists of seven floors and around 14,000 square meters built.

The actions have been carried out in the thermal envelope, both in windows and glass as facade and roof. Double glazed windows have been installed with thermal break and double glazing 6-8-6. On the existing façade a Trespa's ventilated façade has been overlapped and in the roof extruded polystyrene,



lightweight concrete and a waterproof epoxy resin as thermal insulation have been applied. The estimated reduction in gas consumption for heating is 40%.



For the lighting system detectors were installed in toilets and low-use areas as well as T5 fluorescent equipment and downlight equipment with electronic ballasts (replacing T8 fluorescent ballasts) and incandescent lamps have been completely eliminated in several areas and halogen lamps have exceptionally included. In the study of these actions savings of over 120,000 kWh / year have been estimated.

Besides all the above actions a solar system has been installed besides improving the heating system and hot water, for the latter 40 collectors have been mounted representing 88 m<sup>2</sup> of collector surface, their contribution is estimated higher than 30 % of Birmingham center needs, plus the heating system has been improved by installing flow reducers and temperature limiters on endpoints and a control system via PC.



But as it is well known, a developed investment must be complemented, for total success, with an environmental management process as the Matia Foundation has implemented, which includes, among others, an improvement process plan, an ideas and objectives plan for the centers, a maintenance plan, an annual learning plan that incorporates environmental education for staff, and various periodic campaigns to promote sustainable environmental behaviors:

- Low consumption lighting,
- Waste management,
- Purchase energy efficient appliances,
- Energy efficiency: challenges,
- The three R,
- Energy Star, etc..





The management system has been considered important to include posters and visual aids for the lighting and energy savings in air conditioning, appliances, saving water and proper waste management.

Along with the latter a daily and monthly control for electricity, water and energy in air conditioning consumption is performed, to identify incidents and ensure the best state of the facilities.

The result of these actions has been and is the reduction of the consumption in the building, thereby minimization the impact of the activities of the foundation and center on the environment, reduction of the costs and generation of commitment and satisfaction of staff in the center.

It is necessary to highlight that the Bermingham hospital and Matia foundation have collaborated with SAVE AGE project with the Spanish partners Ingema (research center arising from Matia Foundation) and CIRCE Foundation (research center of resource and energy consumption), plus lease its facilities to host one of the seminars / workshops held in San Sebastian (Spain), namely 17 May 2012, which had a high degree of assistance from other residences located in the Basque country, specifically 29 attendees, who showed great interest and initiative to improve efficiency of their facilities.

