

GREEN EUI (Environmental Strategy) Activities carried out between 2015 and 2017

- Infrastructural works

In order to reduce the energy consumption (water, electricity, natural gas and heating oil) at the EUI, between 2015 and 2017 the REFS put in place the following measures:

- Installation of approximately 70% of automatic sensors in order to provide for lights timing in public and transit areas of buildings;
- Installation of tap flow limiters (limiting aerators) in all the bathrooms of EUI buildings;
- Rationalization of operating hours for heating and air conditioning systems (see EUI Heating & Cooling Policy, www.eui.eu/heatingandcooling);
- Enhancement of handling and maintenance of thermal power plants and cooling systems to increase efficiency standards.
- Implementation of electronic control for heating and air conditioning systems in the major part of buildings of the Institute (see below).

Thanks to the outstanding effort of the BMS (*Building Management System*) provider, the REFS managed to complete on time all the activities scheduled for 2016 concerning the implementation of the heating and cooling control system. In addition to that the provider anticipated, without any additional costs, the activities planned for 2017 so that to date we can say that the REFS keeps under control all the centralized heating and cooling units in the following areas:

- Villa Salviati main building;
- Villa Schifanoia Casale;
- Villa Schifanoia Villino;
- Villa Schifanoia main building;
- Villa Schifanoia Cappella;
- PAB Flats;
- Villa Il Poggiolo main building;
- Villa Il Poggiolo Tipografia;
- Villa La Fonte;
- Convento di San Domenico (with the sole exception of the small wall boiler);

- Villa Paola;
- Villa Raimondi;
- Villa Malafrasca.
- Villa Sanfelice;
- Badia Teatro;
- Badia Refettorio.

Given the delay of the Italian Government in performing the final tests at Villa Salviati main building, the REFS in 2017 needed to maintain operational two different BMS systems: Honeywell and Sauter.

After the completion of the tests, the systems under Honeywell should be finally moved under the Sauter server and the EUI will monitor and control more than 10.000 points using a unique BMS.

The next step is to find an easy and cheap solution to monitor the temperatures in all the offices of the campus. The REFS already contacted some companies working in this field to ask for technical solutions to be implemented in the next years.

- Heating and Cooling Policy

In May 2015 the REFS published the first version ever of an EUI Heating and cooling policy, meant to regulate the usage of heating and cooling systems within the Campus and to give some generic rules for a correct environmental behavior.

By implementing this policy, the EUI committed to providing suitable thermal comfort to its users reducing on-going energy costs and carbon emissions.

More specifically, a set of values was determined as comfort level temperature for all EUI buildings during the summer and during the winter, as illustrated below:

- Between 19°C and 21°C throughout all areas during heating season within the Campus. Residential areas (PAB & PDM Flats) shall be maintained between 20° C and 22° C.
- Below 27° during throughout all areas during cooling season within the Campus, including Residential Areas.

Heating/cooling periods and hours of operation are also clearly established and indicated in the policy, in order to avoid misunderstandings and/or energy waste.

For their part, building users are kindly invited to follow a set of basic rules and an

environmentally correct behavior to optimize the efficiency of cooling and heating units and prevent overconsumption.

- **Environmentally Responsible Practices**

Over the course of 2016 the REFS implemented the provision of Bio-based food within the Campus: a number of biological products (Gojii berries, Sesamac, bio cakes) have been made available in the vending machines of Villa Salviati as a test phase, to be extended to the whole campus if successful.

Other provisions have been contracted and agreed with current suppliers:

- The use of seasonal vegetables and other short-production-chain foodstuffs coming from Villa Viviani's Biological Testalepre farm (carrots, cabbage, tomatoes, spinach, courgettes) for the preparation of meals to be served at the EUI canteens has significantly increased;
- As of 2016, bread served at the EUI crèche is prepared 100% with bio-wheat flour;
- Sustainable canned tuna fish (dolphin safe) is now available in all EUI canteens;

The REFS requires the use of eco-friendly soaps and detergents all over the Campus, and in 2014, in order to limit paper waste, the canteen introduced the use of sanitizable ecologic straw placemats.

As a result of the procurement procedure launched in November 2015 and awarded in January 2017, more environmentally friendly products have been introduced in the catalogue of consumable office supplies.

The procedure to limit the consumption of durable goods and to recondition and reuse any faulty products such as staplers, hole punches, etc.. has been further enhanced.

- **Plastic Reduction**

In compliance with the Green EUI strategy, the REFS committed to implement a sustainable and cost effective drinking water provision: the objective is to reduce the usage of bottled water, that proved to be costly and environmentally unfriendly (according to official statistics, only 1 in 4 plastic bottles is recycled*).

In light of the above, in September 2016 the REF decided to encourage the use of tap water by extending the accessibility of free-standing water dispensers installed in all canteen facilities at the EUI 24h 7 days a week.

Free of charge water dispensers are located in the canteen areas of the following buildings:

- Badia Fiesolana
- Villa Schifanoia
- Villa la Fonte
- Villa Salviati

This will allow EUI members to benefit from a permanent drinking water supply by using their own refillable bottles.

The REFS 2018 agenda foresees the installation of further water dispensers in the other buildings currently lacking access to free drinkable water (i.e. Villa il Poggiolo).

*Data source: <http://www.container-recycling.org/index.php/factsstatistics/plastic>

- **Transportation**

Aiming at the replacement of all official EUI vehicles with new energy-efficient and anti-pollution vehicles, in 2015 two new electric “Twizy” cars for internal use of REFS and ICT services were purchased.

In terms of environmental sustainability the use of electric cars will reduce by 2702 Kg CO₂ emissions resulting from fuel combustion on annual basis.

In 2015 the EUI also included in its fleet an hybrid vehicle for institutional purposes (Volvo V60).

In 2017 the following electric public charging stations were installed across the EUI Campus:

- 4 at the Badia Fiesolana (2 in P2 car park and 2 in the Cavallerizza car park)
- 2 at Villa la Fonte
- 2 at Villa Schifanoia
- 2 at Convento di San Domenico
- 2 at Villa Salviati

- Recycling

In 2017 the following collection points for disposal of used waste batteries were organized across the EUI Campus:

- BADIA FIESOLANA – Canteen area just before the entrance to the cafeteria
- VILLA SALVIATI – Hallway between Manica and Castello, next to the bookshelf for book exchange

- VILLA SALVIATI Archives– Lobby, next to the coffee vending machine
- VILLA SCHIFANOIA – Reception (left side)
- VILLINO – Entrance hallway (left side)
- CASALE – Entrance hallway
- RAIMONDI – Entrance hallway
- MALAFRASCA – Entrance hallway, to the left
- CONVENTO – Reception
- POGGIOLO – Ground floor
- LA FONTE – Entrance hallway
- PAB FLAT – Laundry room, to the left of the coffee vending machine

A major impulse was also given to the improvement of separate waste collection, leading to a higher recycling rate: the number of waste collection stations equipped with separate recycling bins has increased all over the Campus, and the company in charge for Cleaning Services has been required to respect waste disposal parameters in a stricter way.

- Raising awareness

The informative campaign on raising user awareness about energy conservation was launched in 2015 by applying stickers to all windows in the various EUI buildings to avoid energy waste when heating or air conditioning are operating. In addition to that, stickers with hints and tips to save water and electricity have been put up in the bathrooms near switches, faucets and toilet flushes.