

# NEWS

CASCADE – ICT for Energy Efficient Airports

CASCADE-Newsletter No 4, January 2014

## Newsletter No 4

Welcome to the fourth newsletter of the CASCADE project, summarizing the news and project outcomes of the past 6 months.

## CASCADE second period approved by European Commission

Our last Consortium meeting took place on 10/11 December 2013 at Fiumicino airport.

The first day was focused on the official review of the European Commission, including a visit of the technical installations. The technical advisors were also present. On the second day, the consortium came together for internal discussions. The European Commission reviewed the outcomes of the second project period and approved it positively. This means that the consortium can proceed with all its activities in the third project year.

## Advisory committee

The CASCADE Consortium is supported by a committee of external experts, who reviews and advises the project outcomes in substantial issues. Our advisors are Ms Stavridis, AviAlliance GmbH, Mr Wagner, Karlsruhe Institute of Technology (KIT), Mr Frank, FMO Flughafen Münster/Osnabrück GmbH, Mr Demetrio SEA and Mr Andreas Queisser, SPIE GmbH.

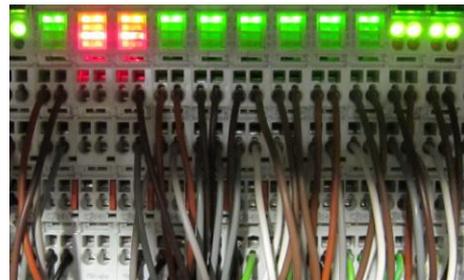
## Work progress

The first software prototype could be released during last summer. The software provides energy managing teams at airports with an Energy Action Plan enabling them to organize and verify Energy Conservation Measures according to the Plan-Do-Check-Act iterative method. So, concrete actions can be assigned to energy team members with target dates. The performance of these actions can be monitored on an intuitive dashboard. Furthermore, the Operation & Maintenance activities of Heating, Ventilating and Air Conditioning systems, which account for about 50 % of the buildings' energy consumption, are now supported by an automated Fault Detection and Diagnostics system provided by the partners SMI and Fraunhofer ISE.

The installation of additional sensors and meters as well as the network connections could be fully commissioned during last December 2013 at the Fiumicino FCO airport. The CASCADE Consortium is now working on the data analysis to set up the automated detection and diagnostics. On the organizational side, the ISO 50001 Energy Management System is being customized to the needs of both airport pilots for a concrete test period during the next months.

The CASCADE programmers are also further developing the Fault Detection and Diagnostics software to enhance the user friendliness by providing advanced and interactive visualizations and robust fault detection methods.

At MXP airport, organizational issues caused some delays in the concrete implementation of the CASCADE solution. The detailed design is now ready and installations will be completed by end of March 2014.



## TV documentary about CASCADE

Euronews has produced a TV documentary on our project. The TV crew could interview several project partners and get insights in the technical installation of Fiumicino airport.

The film has been broadcast in the 'futuris' program of the Euronews channel in 13 languages since January 2014. You can watch it at following links and on the CASCADE website, or on the Futuris web page in English, French, German, Italian and many more languages:

English: <http://www.euronews.com/2014/01/27/a-smart-move-to-energy-efficient-airports/>

French: <http://fr.euronews.com/2014/01/27/des-aeroports-intelligents-et-moins-voraces-en-energie/>

German: <http://de.euronews.com/2014/01/27/am-airport-viel-energie-fuer-weniger-energie/>

Italian: <http://it.euronews.com/2014/01/27/la-ricerca-europea-per-gli-aeroporti-eco-friendly/>



## Interview with SEA Energy Manager

Last November 2013, our project partner D'Appolonia interviewed Mr. Stefano Dolci, the energy manager of SEA at the Malpensa Airport. Mr Dolci talked on the benefits and the expectations of SEA by implementing the CASCADE solution. Read the summary of the interview:

First of all, SEA is confident that the implementation of the Cascade solution will have diverse positive effects on the energy and equipment management within the Malpensa airport, expecting also an improvement of the promptness of intervention by real-time monitoring, with the opportunity to intervene remotely when possible and identifying in detail the actions that require direct intervention by the operator on the equipments.

Secondly, the reduction in the primary energy use - estimated around 10% - together with the possible use of renewable energies will lead to the achievement of side objectives such as the reduction of emissions of pollutants and greenhouse gases into the atmosphere, taking also advantage of the recent implementation of the ISO 50001 certified Energy Management System at Malpensa airport.

Last but not least, the SEA team is strongly confident in successful CASCADE system replication, which represents an important opportunity for the project. In fact, while the airport scenario represents a complex and vast environment for the development and testing of energy management software and recording systems of advanced data, this kind of solution remains desirable also in structures with plants of comparable complexity such as for example public buildings or shopping malls.