

Implementing ALDREN outcomes in the renovation sector:

interviews with Patrick Nossent, Mayte García Córcoles and Isabel de los Ríos Rupérez

The ALDREN pilot program has tested the different protocols developed to ensure their quality and reliability towards a future market uptake or direct use by all the stakeholders related to building renovation across Europe. For that reason, the consortium started to look for non-residential building candidates located all over Europe, fine tuning the whole procedure in a real context.

20 buildings from Belgium, France, Italy, Slovakia, Spain and United Kingdom have been selected due to their specific conditions and typology. From these 20, 6 are hotel and 14 office buildings. It is essential to remark that the ALDREN procedure has been solvent and flexible enough to manage the differences between both uses and their requirements, when evaluating the energy performance and its certification.



Interview with Patrick Nossent
President
CERTIVEA



Introduction

Since 2005 CERTIVEA delivers HQE certification for all non-residential buildings (offices, schools, hotels, retail, logistics, ...). This certification scheme considers buildings under construction, renovation and in-use. The certification process is based on audits in design, at the end of works and in-use, in order to verify the real performance of the building. The "HQE certification" is one of the main certification schemes in the world, with more than 4000 certified buildings in all continents. It's a quality certificate that is granted, through a thorough and third-party independent certification

process. It's a guarantee to have fully operational, sustainable, comfortable, healthy spaces, offering well-being to occupants.

Since the beginning of the ALDREN project, CERTIVEA consider its experience in the field of certification, to ensure that ALDREN methodologies could be used in its future certification schemes. A work has been done to see how to implement partial incorporation of the ALDREN methodology in the existing "HQE" certification.

Patrick Nossent, President of CERTIVEA, highlights in this interview the strengths of the ALDREN methodology.

1. What are the main market barriers facing building certification schemes?

ALDREN project make a link between sustainable improvement of buildings (energy consumption), well-being benefits for occupants, and economic gains for all parties. By this way, the ALDREN modules has shown that a deep renovation brings in the same time energy savings, improvement of health and comfort conditions, with long-term financial benefits.

One of the major interests of the ALDREN project for Certivea is to implement the scientific methodologies which result from it, in order to promote them through its third-party certification systems. This will highlight these different cross-benefits (sustainability, well-being, economy) for the final customer of the certification. The market is awaiting this third-party guarantee about these links. The HQE certification scheme offers this security, considering its rigorous process and its overall approach. That will lead to more efficient buildings, reaching really the performance expected.

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Owners recognition is a key element. The association of a mature certification scheme as HQE, with the detailed protocol of ALDREN will allow to show these crossed benefits.

2. Given that Energy Performance Certificates (EPC) are mandatory, what benefits can it offer that buildings also have a voluntary environmental certification? What do you think about the coexistence between the mandatory energy certificate and the voluntary environmental certification schemes of buildings?

Voluntary environmental certification schemes as HQE already coexist with mandatory energy schemes all over Europe. Voluntary certification schemes are comprehensive assessment methods that deal with all aspects of a project (energy, climate change, water, waste, biodiversity, indoor air quality, electromagnetic fields, visual and acoustic comfort, transportation, circular economy, ...) and go beyond regulations according to the objectives of the owner of the building. Mandatory energy schemes are enforceable in each country. So, objectives are different.

One of the main advantages of ALDREN methodologies is that it provides a common scale for EPC, which fits in perfectly with the needs identified above.

A combination of ALDREN's methodologies and the benefits of a mature certification scheme (HQE), is a one of the best ways to make eco-conditions more reliable and to encourage deep renovations.

3. ALDREN's backbone is a harmonized European voluntary certification scheme that integrates the assessment of energy, health, and wellbeing performances of the building. What are the main strengths of the ALDREN methodology in your opinion?

The main strengths of the ALDREN methodology is to make a link between energy renovations planned, the level obtained on EPC, the improvement of well-being and of building value. This is preponderant in the commitment of building stakeholders to a virtuous renovation process, showing them that energy improvement is also valued in terms of well-being and economy.

The rigorous methodologies applied also allow to have a high level of confidence in the results, which is very important for stakeholders.

4. Which ALDREN modules/indicators/protocols do you plan to integrate into "HQE"?

Certivéa will certainly use the different modules of ALDREN, independently and in different ways, for its certification schemes. For example, the energy thematic of HQE certification could be updated by adding the calculation protocol of task 2.2, in order to deliver also the new EPC. We will refer also to the performance verification tool developed in ALDREN, especially for buildings in use.

We will ensure that indicators used in HQE to evaluate health and wellbeing are compatible with TAIL indicators used in ALDREN. And we will also use the link made in ALDREN between renovation process and value of the building, to give this new information to our stakeholders.

A strong relationship has been created with HOSBEC (*Asociación empresarial hotelera y turística de la Comunidad Valenciana* <https://www.hosbec.com>), which provided 6 hotel buildings to test the different modules. This collaboration with the ALDREN project demonstrates the interest and commitment of its associated hotels in reducing their environmental impact and contributing to a quality and responsible tourism. Also important is IVE's certification Entity, essential to review the modules related to Energy, Health and Wellbeing and currently working to adapt part of the protocols to its certification structure and promoting the inclusion of roadmaps to track the renovation measures implemented on buildings.

IVE (Valencia Institute of Building <https://www.five.es/>), the Spanish partner in the ALDREN project, has been in charge of coordinating this fruitful relationships that resulted in a very useful feedback to prepare ALDREN towards the real building renovation market in the hospitality sector and as a set of tools that can be assumed by existing certification entities.

Hosbec

IVE has been in conversations with HOSBEC since the inception of the pilot programme. The buildings that finally joined the program were selected due to their need of renovation, interest towards energy efficiency and scale. All of them have been tested in terms of energy efficiency and health and wellbeing modules, elaborating bespoke renovation roadmaps that estimate the possible evolution of the building energy perfor-

mance in the following years. Only 1 of them has been used to test the whole ALDREN procedure.

Each building has different qualities and circumstances, what made the ALDREN modular approach an advantage, tailoring the renovation roadmaps with real needs. The results have been diverse and promising as the most part got an energy class close to ALDREN NZEB level, triggering the production of renewable energy and updating the building systems to the latest technologies available in the market. It is important to mention that the ALDREN procedure can be applied, too, under actual conditions, using the performance verification tool as control and managing tool of the outputs obtained during the simulation process.



**Interview with
Mayte García Córcoles**
Head of Quality, Training and
Projects at HOSBEC



Introduction

[HOSBEC](#) is the Association of Hotels of Benidorm, Costa Blanca and Valencian Community. It represents the hotel sector with the aim of increasing its competitiveness and plays a key role in the development of tourism policy. HOSBEC was founded in 1977 and currently has hundreds of associated hotels. Thanks to the collaboration established between HOSBEC and the ALDREN project, six hotels located in Spain became “Pilot buildings” in ALDREN project: [“RH Bayren & Spa”](#), [“Benidorm Center”](#), [“Poseidón Playa”](#), [“Flamingo Oasis”](#), [“Les Dunes Comodoro”](#), and [“Dynastic”](#). This collaboration confirms the strong commitment to offer Valencia region as a quality tourist destination.

The result of the research offered to the owners of these hotels detailed information about the renovation measures that should be undertaken to improve the energy performance of the building up to the nearly zero energy standard (nZEB), its impact on comfort conditions and healthiness of the occupants, as well as quantifying the market value of the building after the renovation.

1. Until now, do you think that clients have valued knowing the energy performance and environmental impact of the hotel in which they have been staying? Can it influence when choosing one hotel or another? Are they important aspects in tourism marketing?

– In recent years, we have been able to detect that, among the criteria employed for selecting a hotel estab-

lishment, customers have begun to value energy and environmental policies. In general, hotel companies have started to introduce these principles into their communication policies. However, only those who have been able to integrate energy policies on their management achieve that plus of differentiation.

It would be desirable that these energy-saving policies and strategies to become a nearly zero energy building (nZEB) were a reality among those buildings with the greatest expenditures. It is true that most recently built buildings are close to achieving this energy goal but buildings built more than 15 years ago did not comply with these energy measures. Hence the importance of integrating energy criteria during their renovations.

2. The current Covid-19 pandemic has focused the attention of public opinion on the vulnerability of our cities and buildings. Do you think that the demand for safe, healthy and comfortable hotels with higher quality indoor environments will now increase? How could this impact your market?

– I think that among the selection criteria of a hotel, it will be decisive to be able to know the degree of compliance with hygiene and safety measures. After this pandemic, certain questions about environmental quality in hotels will be highly valued by guest.

Therefore, now more than ever, hotels will start designing facilities to accomplish hygiene criteria, easy cleaning, ventilation, accessible air conditioning systems, between others.

Tourism market is facing the most significant challenge ever, and it will be crucial that everything advanced in terms of energy and sustainability helps to create customers confidence, but above all for optimizing costs.

3. In this context, ALDREN allows to evaluate the quality and potential improvements of the indoor environment through a pragmatic rating approach based on measurements. As a whole, the ALDREN approach is modular with complimentary assessment approaches to identify renovation actions for building owners. What aspects of the ALDREN methodology would you highlight?

– ALDREN allows to standardize a very useful methodology when planning improvements and to demonstrate that buildings can be more sustainable prioritizing those areas that improve their energy performance and consequently their emission reduction.

The hotels that have participated in pilot projects have the privilege of having information that in many cases, has allowed making more reasoned decisions, obtaining more significant savings in energy consumption.

4. Eventually, what insights did you gain through ALDREN pilot studies conducted by IVE on several hotels?

– The most important conclusions that ALDREN is bringing from the pilot studies is the importance of integrating information about the building performance, which allows prioritizing actions on those areas where improvements in the energy efficiency are more relevant.

Accessing this type of projects is an opportunity for the hotel sector to improve in energy and innovation, and also demonstrates interest in the commitment and concern to reduce the environmental impact of these large energy-consuming buildings.

IVE certification entity. Bes Office Certificate

IVE certification entity has been always receptive to review the ALDREN protocols providing feedback and experience to improve the overall ALDREN procedure. On that terms, it is important to recall that BES certificate has contributed substantially at the first stages of the ALDREN project, mainly, with indicators, parameters, and methodology to kickstart the design of the M2.4, Health and Wellbeing.

Not less important is that BES certificate found very interesting the work developed on other Modules, more specifically the M2.6, renovation roadmap and logbook, the section related to Lighting in the M2.4 and the methodology developed in the M2.3, GAP measurement between estimated and real energy consumption. These 3 methodologies and parameters have been adapted and integrated into the BES certificate procedure, adding value to its structure.



Interview with Isabel de los Ríos Rupérez
Responsible for the Secretariat of the IVE Certification Entity



Introduction

Since 2017 the [IVE Certification Entity](#) offers “**BES Office**”, which is a certification scheme for buildings

and office premises in use, in which a company or organization is normally developing its professional activity. The “BES Office” is a quality certificate that is granted, through a thorough and independent certification process, to those workspaces that are fully operational and have environmental and spatial conditions of great influence for the well-being of employees.

Since the beginning of the ALDREN project, the IVE certification entity has been consulted on numerous occasions given its extensive experience in the field of certification. At the moment, work is being done on the partial incorporation of the ALDREN methodology in the existing “BES Office” certification.

Isabel de los Ríos, responsible for the Secretariat of the IVE Certification Entity, highlights in this interview the strengths of the ALDREN methodology.

1. What are the main market barriers facing building certification schemes?

– The Voluntary Certification Schemes offer added value to the evaluated building, both for the real and effective improvement that any quality control process brings to the controlled product, and for the trust that third-party certification schemes offer regarding the quality of space or construction.

If the market does not clearly recognize that a certain voluntary certification scheme guarantees this added value, it will be difficult to make an economic investment and a technical effort to implement it.

In general, I consider that the social agents involved in the building sector perceive favourably that voluntary certification schemes promote the real quality of the building and the use of certain materials, facilities or systems that significantly improve the energy performance of the building. Submitting a building to an evaluation process requires rigorous precision that, on the one hand, makes it easier for the project to contain all the information necessary to adequately define a building and, on the other, for the work carried out to be faithful to the content of the project on paper.

Public recognition is the most complex aspect to achieve since it requires the maturity of the voluntary certification scheme and the existence of evident advantages for the promoter, both commercial, financial, fiscal, etc. which are complex to implement.

2. Given that Energy Performance Certificates (EPC) are mandatory, what benefits can it offer that buildings also have a voluntary environmental certification? What do you think about the coexistence between the mandatory energy certificate and the voluntary environmental certification schemes of buildings?

– Voluntary environmental certification schemes can and should coexist with mandatory energy schemes, as long as they value aspects that are different and innovative in energy matters, or environmental aspects that are complementary to purely energy aspects.

We are talking, for example, of incorporating requirements on water consumption, the use of sustainable materials, the establishment of limit values in parameters of environmental comfort such as air quality, noise, spatial configuration, etc., all of them aiming, not only at protect the environment, but to improve the well-being of the occupants or users.

3. ALDREN's backbone is a harmonized European voluntary certification scheme that integrates the assessment of energy, health, and wellbeing performances of the building. What are the main strengths of the ALDREN methodology in your opinion?

– ALDREN offers a detailed and rigorous methodology to evaluate both the current state of the building under

study and the improved state according to the planned energy renovation.

In addition, it is a methodology which aims to improve the evaluation of the energy performance of buildings and bringing computer models closer to the built reality. This aspect is key and represents one of its greatest strengths, which, logically, is well received by professionals who are dedicated to improving the quality of buildings in general and promoting efficient renovation.

4. Which ALDREN modules/indicators/protocols do you plan to integrate into "BES Offices"?

– Thanks to ADREN we are updating environmental parameters such as some relating to air quality, but fundamentally the Energy Saving requirement is being updated, expanding the range of features that can be chosen to achieve BES certification.

The BES Offices Design Guide will expand the aspects related to how energy audits and monitoring should be and will incorporate a feature aimed at promoting the drafting of roadmaps for the continuous improvement of the building in terms of its energy performance.

Hygiene in Potable Water Installations in Buildings

– Requirements for design, deployment, operation and maintenance

REHVA EUROPEAN GUIDEBOOK No.30

The interrelationships between water quality, health and the well-being of users require that all parties involved have a specific responsibility for aspects of hygiene in specifying the requirements for potable water installations in buildings. This guidebook gives an overview about the fundamentals of hygiene and water quality and contains main information's on the design, installation, start-up, use, operation and maintenance of potable water installations in buildings. It gives also suggestions for the practical work (maintenance, effects on microbiology, potential causes and measures in practical work, checklists).

