

BELGIUM

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Skills, training and knowledge case study:

Cap2020

Description:



CAP2020 is a regional cluster created under the impulsion of Wallonia. It gathers a group of enterprises active in the building industry, who adopt and pursue the 2020 European objective of massive energy consumption reduction applied to buildings and build a common attitude related to sustainability stakes. More precisely, the declared objectives of the cluster are as follows:

- Reach a level of building energy performance that is 20% more efficient than the regulatory prescription for 15% of buildings (new or renovated) in 2020.
- Develop the production of energy from renewable sources, in a sustainable prospect.
- Improve the energy performance of the whole Walloon building stock by 1%, each year.

In June 2014, the cluster was composed of 174 different effective members, coming from the three main roles involved in the Walloon building chain of the construction/renovation of buildings, which constitute the three statutory pillars of the cluster, i.e.:

- Conception, design: architects, engineers... (77 members)
- Contractors, all kind of construction companies (small, average and big companies: 36 members)
- Producers and suppliers of building materials (42 members).

The 19 other members are coming from federations, research units and training institutions.

The cluster, financed by membership fees (which depends on the size of the “company”) and by (paying) attendance to activities, works thanks to three vital organs:

- The Administration Board, the strategic organ defining the guidelines, composed of 16 members from every professional groups; the presidency shifts every 2 years from one pillar to another.

- The Directorial Committee, the operational organ putting the strategies defined by the Administration Council into operation and managing day-to-day business. 9 of the 16 members of the Administration Council sit at this Committee.
- The Operational Team, composed of three official representatives and a communication responsible.

Cap2020 tries to ease relations between the main actors of the construction sector – who are most often alone in their office or company – so that they can meet together, develop and share their knowledge, exchange on experience, opportunities, good practices and (low-carbon) technologies (as far as sustainable building is concerned) and use networks of privileged professional partners created by the cluster. But the philosophy of this cluster is also to make information available to construction actors (architects, contractors and material producers), for construction workers (not only members, but everyone who is interested in the information given by the action).

The dissemination of skills and knowledge being destined to the widest public, the stakeholders are multiple and various: they are the members of the cluster, architects, engineers and designers, contractors of all sizes, material producers and suppliers; private offices and companies or public authorities who consider Cap2020 cluster as a credible association to be consulted concerning evolution of performance and energy regulations at the Regional scale.

Different tools are available to this purpose; their interest is real, as 98% of members participated in an activity organised by the cluster between June 2013 and May 2014.

- The newsletter is a common communication mean, used by all associations to get in touch with their members in a safe and regular way. In its monthly edition, the cluster keeps interested people in touch with events, actions, meetings, interesting results... As a modern association which aims at the wider possible public, the cluster also studies and uses social media to diffuse information. The cap2020 website¹ is also an information platform on sustainable construction for private people, gathering information on basic principles, incentives, standards and innovation. 76 new articles have been posted on this website between June 2013 and May 2014.
- Events are organised by the cluster under different forms, to give opportunities to be-to-be exchanges, like:
 - o “Noon of Cap2020”, which are small meetings, at lunch time, during which can be organised the presentation of a company or of a product, or a debate on a specific topic. They are also means of extending the members network, by making new contacts among non-members who are welcome to these events. 3 of these meetings have been organised between June 2013 and May 2014, gathering 60 people.
 - o Visits of innovative construction works on site, where general and particular solutions might be discussed, as well as innovative product implementation demonstration. For example, high quality projects that have been visited include eco-neighbourhoods in Engis, Belgium (20 participants) and in the region of Dunkerque, France (35 participants), or a visit of the REGAIN semi-industrial building (13 participants). 18 people also took part in a “day of sustainable construction” event in the Grand Duchy of Luxemburg.
 - o The “decision-maker lunches”, organised in a restaurant, aiming at reinforcing competitiveness and commercial links between cluster members and at easing

¹ <http://clusters.wallonie.be/cap2020-fr/>

access to innovative capacity. Other institutions, like local economic development (public) companies, or regional social housing organism, are also invited to present their activities, needs, projects or results. The interventions do not only revolve around sustainable building, but also other aspects of the sector, like training, communication (e.g. social media) or marketing. Between June 2013 and May 2014, five of these lunches were organised, gathering 126 participants.

- Conferences and seminars are regularly organised, on different subjects related to sustainable construction. They can take place in global “sustainable building fairs” or in separate events. For example, an evening dedicated to smart cities, called “Meetings around the cities of tomorrow” gathered 124 participants in May 2014. The September 2014 conference focused on Smart Buildings, during the Passive House Salon.
- Techniques, knowledge, know-how and production process evolutions impose building professionals to continuously train if they want to stay on top of things. Needs in training is therefore often discussed between members; contacts are taken with Greenwal² to organise trainings on sustainability-related themes like air tightness, ventilation, thermal bridges or LED lighting...
- Internally, different working groups have been created (members only) to reflect on topics and communicate the products of these reflections to the members as well as to external public, in different events organised by the cluster. Amongst the different topics studied by the 26% of members who attended these working groups between June 2013 and May 2014, we can point:
 - Innovation products and systems solutions, techniques, materials, equipment and services allowing more energy efficient buildings.
 - Labelling of buildings and companies.
 - Relations and visibility of the cluster.
 - Finance and construction economy.
 - Renovation (and ventilation).
 - Renewable energy sources, in relation with buildings, whether public, private, individual, collective, residential, tertiary or industrial ones.
- Cap2020 also aims at promoting the conception and realisation of high quality projects, anticipating evolution of standards and environmental requirements and/or meeting the sustainable construction criteria. These cover, among others, the global energy performance of buildings, the controlled use of natural resources, water cycle management, waste management, comfort, health and the security of buildings and infrastructure users. Cluster Cap2020 is also a vector for introducing collaborative research projects to the Walloon research administration, e.g.:
 - The ECOFFICE, a BREEAM certified passive office building built for a “small construction price” (under 1000 €/m²); the originality and interest of this project also lies in the unusual early involvement of contractors, university research units and future tenant in the conception process, in addition to the architects. This inspiring

² Greenwal (www.greenwal.be) is a “pole of excellence” which aims at boosting the construction and renovation sectors by building bridges between training, research and innovation. Members include confederations of actors, or large companies in the construction sector, training organisms, clusters (like Cap2020), research units... They propose trainings of different importance (in length and attendance) for actors of sustainable construction, master classes and conferences on innovative topics. In 2016, an innovation demonstration platform (a place to diffuse innovation) should see the light. Development of new training programs, and coordination of the training offer in Wallonia is one of their missions.

example has already led to the construction of a similar (nearly zero energy) office building in Wierde, Belgium.

- CIMEDE, (which stands for “Industrial Construction of Evolving, Sustainable and Economical Houses”, in French), a new building concept, based on industrialised prefabricated wood-framed panels, used to produce sustainable, evolving, low-energy and low-cost single family houses.
- The cluster also helped to give life to the “Reno2020” project, which aimed at studying the possibilities of inserting prefabricated and industrialised solutions into the renovation of the Walloon dwelling stock. One of the outcomes is the creation of a software helping decision-makers in the renovation process of a building. This particular project and its results are used in another research program about ventilation in renovation.

It can be noted that, for the period of June 2013 to May 2014, 25% of members were involved in a collaborative project (with at least one other cluster member).

- Finally, the cluster insures a regular presence (in order to give information, advice or contacts) to different trade shows and fairs, like the “PassiveHouse”, “ECOBAT”, “Batibouw”, “Energie+” or “Energie et Habitat”.



The whole cluster politics which has been developed in Europe for 20 years, has proved its worth. In Wallonia, other clusters and competitiveness poles³ deal with “transport and mobility” issues (*Logistics in Wallonia* and *SkyWin*), Environment and Sustainable Development (*EcoConstruction*, *GreenWin* and *Tweed*, in addition to *Cap2020*), nutrition and health (*BioWin* and *Wagralim*) or transversal technologies (*Infopole Cluster TIC*, *Mecatech*, *Cluster Photonique*, *PlastiWin* and *Twist*).

The Cap2020 cluster has been growing constantly in later years, allowing anyone to reach a wide network of professionals that are committed in efficient design, materials and buildings construction. The number of members is foreseen to grow up to 300 members in three years.

³ Quite similar to clusters, competitiveness poles are defined as the combination, on a given geographical region (Wallonia), of companies, training centres and research units, public or private, engaged in a partnership destined to clear synergies around common innovating projects. This partnership is organised around a market and a technological and scientific domain, and is seeking international visibility and competitiveness.

The cluster also inspires other organisations like “business clubs”, local gatherings of private companies, social economy enterprises, architects and material suppliers, creating platforms of 10-15 enterprises which can therefore collaborate, inform and stimulate each other in order to reach better economical, ecological and technical performance. Those clubs become places of exchange on various topics, such as innovation, services and partnership offers, employment, construction site organisation, communication, energy performance, environmental performance, marketing performance...

It has become a new economical development tool, an indispensable and unique exchange platform regrouping energy construction stakeholders, implemented to stimulate the high potential of the sustainable building sector. It is a place of exchanges, of value creation and innovation incentives.

In the future, the cluster is foreseen to grow, as far as the number of members, activities and trainings are concerned. Up to now, the cluster works as an exchange platform of knowledge (about low-carbon materials, solutions and technologies), used mainly by the members. With only one training organised in the last year, when the construction sector is evolving so fast, the cluster knows the importance of developing the training service, to stimulate the diffusion of low-carbon skills. Other activities will be continued and developed, in order to raise the public attendance and complete the contact list. New collaborative projects are (and will be) developed, as well as working groups.

For more information:

<http://clusters.wallonie.be/cap2020-fr/>

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