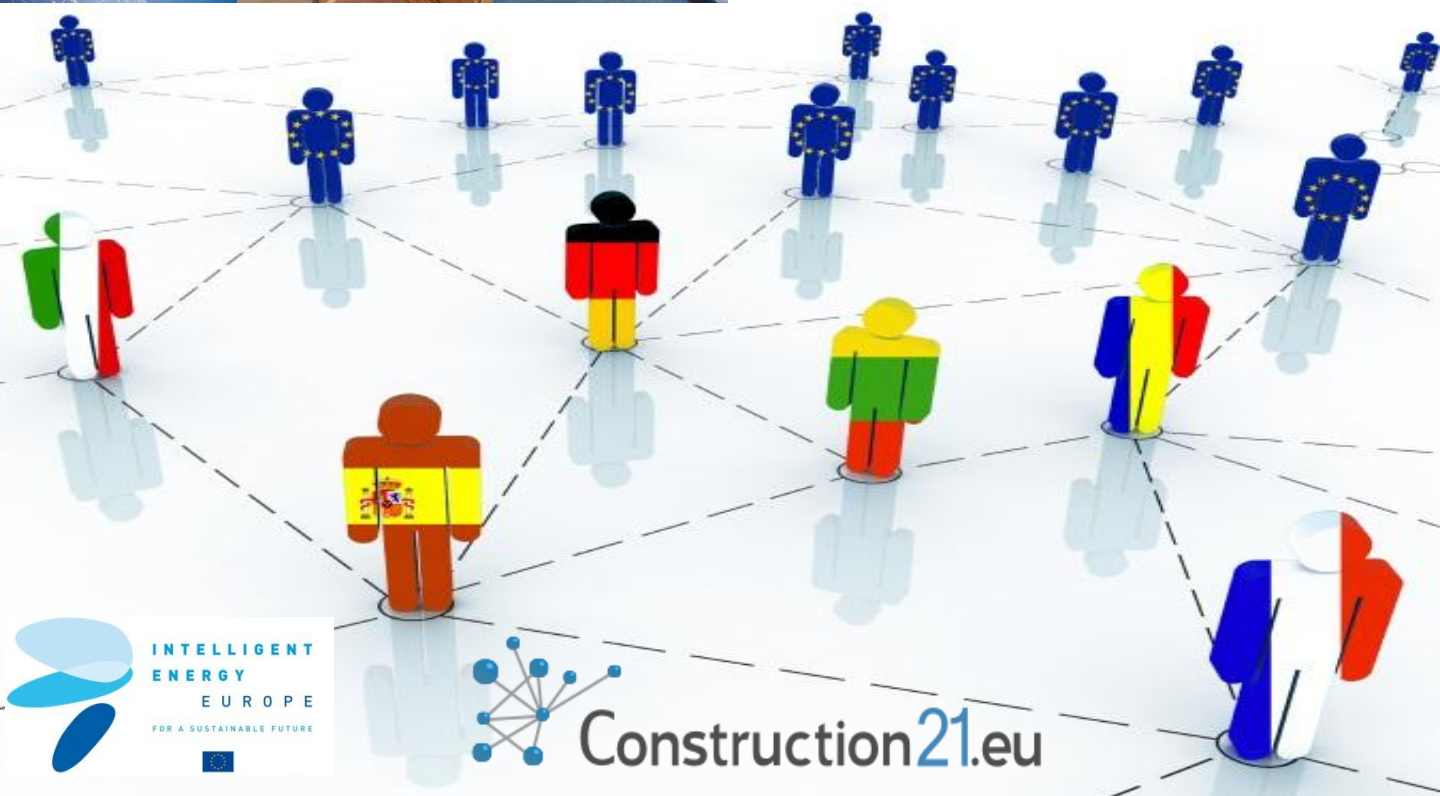




## Collective intelligence for sustainable buildings





## 1 EXECUTIVE SUMMARY

### **We made it!**

This self-congratulating introduction may sound strange for an official report!

The challenge was to create a social network to address the needs of practitioners and the market. The final goal is to deeply shift the expectations, habits and standards of the market towards sustainable patterns. As a result of this Intelligent Energy for Europe-supported project, [www.construction21.eu](http://www.construction21.eu) is online today. The audience is huge. An ongoing online collaboration helping thousands of building practitioners in their day to day business.

The first step of launching the website in all partner countries is over. Come the second step: finding new partners in new countries and strengthening existing countries thought in their own local business model.

To manage this development, an international non-profit association has been created. The CONSTRUCTION21: international network is composed of countries' "chapters" who manage locally each web platform and drive success in their country.

We would like to first thank the European Agency for Competitiveness and Innovation. Without the IEE grant for starting this ambitious adventure, nothing would have happened.

Second, we would like to thank the registered users and contributors to CONSTRUCTION21 for posting content, managing online communities and making this platform a credible and useful living exchange. Lastly, we would like to thank all of our partners who joined us on pursuing the development of this knowledge sharing effort - an effort requiring the dedication of people - who were expert organizations, leading companies, public authorities, academics, and many other stakeholders.

You, as an important stakeholder in driving the green transformation of the construction and property industries, are invited to be part of this online revolution.

The journey has just begun.

Cédric BOREL, Véronique PAPPE and Steven BORNCAMP.

## 2 CONTENTS

1	Executive Summary .....	0
3	Why CONSTRUCTION21? .....	3
3.1	Global need for collective intelligence: the market .....	3
3.2	Global need for collective intelligence: project management .....	4
3.3	The 10 questions of a professional in the field! .....	5
3.4	Natural diffusion by Internet of Best Available Techniques (BAT) .....	7
3.5	The construction21 user ecosystem .....	8
4	Further Industry and market analysis .....	9
4.1	The European Property & Construction market .....	9
4.2	Regulatory environment .....	11
5	Construction21 answer: collective intelligence .....	12
6	Partners .....	14
7	Features: The local to global approach .....	17
7.1	Construction21: an international network of local platforms .....	17
7.2	Structure of each local platform .....	18
7.2.1	A focus on Case-studies .....	19
7.2.2	A focus on A product database .....	20
7.2.3	Communities .....	21
7.2.4	Social Networking .....	22
7.2.5	Training database .....	22
7.3	Upcoming Features .....	23
7.4	Sustainable cities .....	24
8	Website audience in Q2 / 2013 .....	25
9	Reaching a great audience in each country .....	26
9.1	Adapted approach .....	26
9.2	Buenos dias... constructores del siglo 21 .....	26
9.3	Buon giorno, professionisti del 21° secolo .....	28
9.4	Sveiki, statybininkai 21-ajame amžiuje .....	31
9.5	Alo, constructori al secolului 21 .....	34



9.6	Hallo, Baumeister des 21. Jahrhunderts .....	36
9.7	Bonjour, constructeurs du 21ième siècle !.....	38
10	C21 success STORIES! .....	40
10.1.1	A first pan-European building award based on C21: Metropolitan Contest! .....	40
10.1.2	A guided tour & C21-GOOGLE MAP on Efficient Buildings with C21 Spain.....	42
10.1.3	Artist Jacopo Fo at Expo Edilizia with C21 and UCV .....	43
10.1.4	sharing news on social networks.....	44
10.1.5	From virtual to real: meeting the C21 communities in real life! .....	44
10.1.6	“Highlighted European case of the month” on Build Up .....	46
10.1.7	From TOO MUCH PAPER TO PAPERLESS AND WEB ENABLED .....	46
10.1.8	C21 at the origin of the Lithuanian GREEN BUILDING COUNCIL .....	48
10.1.9	C21 in the local RomAnian building codes! .....	49
11	Governance: Construction21 International .....	50
11.1	Mission and objectives.....	50
11.2	Construction21: international objectives .....	50
11.3	Partnering with international organizations .....	52
12	Why join Construction21? .....	53
12.1	Join the most exciting internet collaborative network .....	53
12.2	Who can join? How to form a local chapter? .....	54
12.3	Costs & Revenues.....	55
12.4	Guidance and support .....	56
13	Contacts.....	57
14	C21 Casting .....	57

### 3 WHY CONSTRUCTION21?

#### 3.1 GLOBAL NEED FOR COLLECTIVE INTELLIGENCE: THE MARKET

The real estate and construction sector is fragmented throughout the Value Chain and is geographically dispersed. Multiple and varied players are involved. How do we engage such a sector into the global transformation for tackling Climate Change and European targets for energy independence?

What can leverage the shift toward a full energy efficient and sustainable market?

Is it a matter of will or money?

What will trigger the refurbishment of the existing stock? Who can be the leader for a shift in practices?

Can the current market afford the shift?

What is truly “green”?

Can we do more for less?

Why and How short and medium term market players will engage themselves on long term sustainable goals?

What are the most efficient public policies? Which are the potential side-effects?

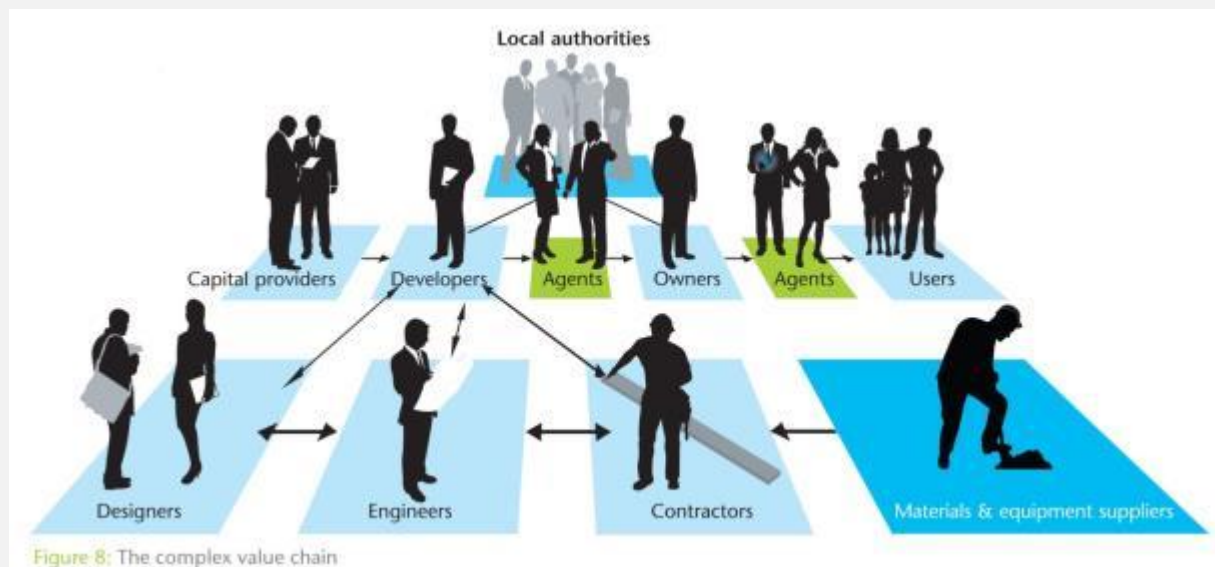


Figure 1 - From the World Business Council for Sustainable Development (WBCSD) - A complex value chain (simplified), “EEB Facts and Trends”, 2007

Building energy and sustainability is part of a complex ecosystem. In addition to those represented within Figure 1 above, transport and urban planners have a major role on determining social, environmental and economic consequences of the built environment.

The fragmentation of the sector creates crucial barriers. The transformation of the existing building stock through market mechanisms and the production of high performance energy efficient and sustainable buildings require integrated actions across the building industry, from developers and building owners to governments and policy-makers. A full range of important and highly relevant topics developed in Construction21 are necessary to substantially reduce energy consumption and the resulting carbon emissions.



Construction21 has taken a bottom-up, market-driven and collaborative approach to understanding the barriers to lower energy use in the building sector through a user oriented platform.

### 3.2 GLOBAL NEED FOR COLLECTIVE INTELLIGENCE: PROJECT MANAGEMENT

The WBCSD report has pointed out the “operational islands” that exist within project management (see figure) to be addressed. It means a global drive for a real energy efficient and fully sustainable practice may come from above, from the owner, and be well understood by all stakeholders.

In order to cover operational islands, all players may cooperate and identify common goals. In that respect, inner and outer pressures linked to “business as usual” behaviours need to be addressed. Then questions about change will occur. The 10 most frequently asked questions are reproduced in the following section 3.3.

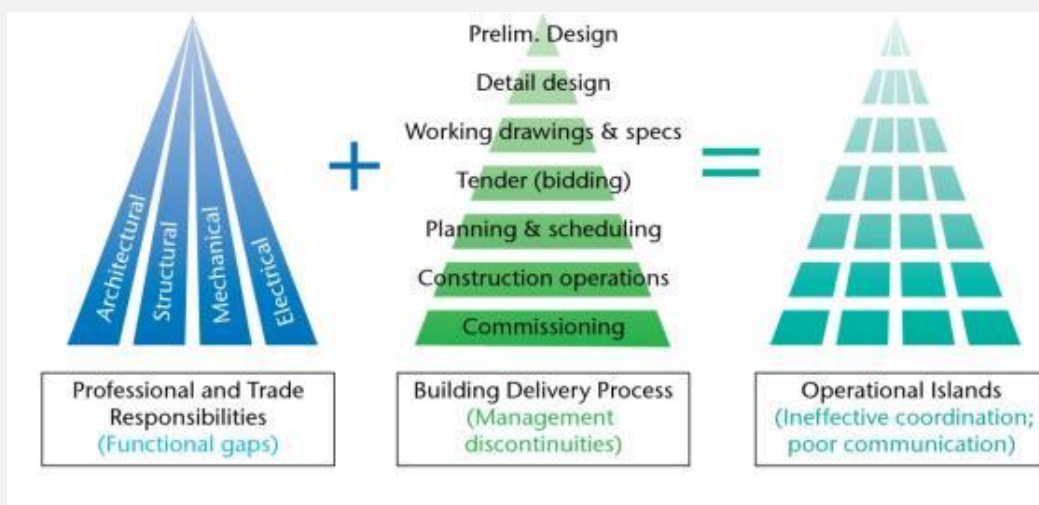


Figure 2 - From WBCSD, Project operational islands, "Facts and Trends", 2007

Difficulties in understanding the current state of the art and finding the specific knowledge required are barriers faced by stakeholders. High levels of ambition when developing new projects usually turn into poor achievements. Underperformance is the major risk, whereas to increase the level of awareness is a major opportunity. For renovation, and especially when thermal refurbishment is at stake, the level of awareness and the return of experience on existing projects are key for decision making.

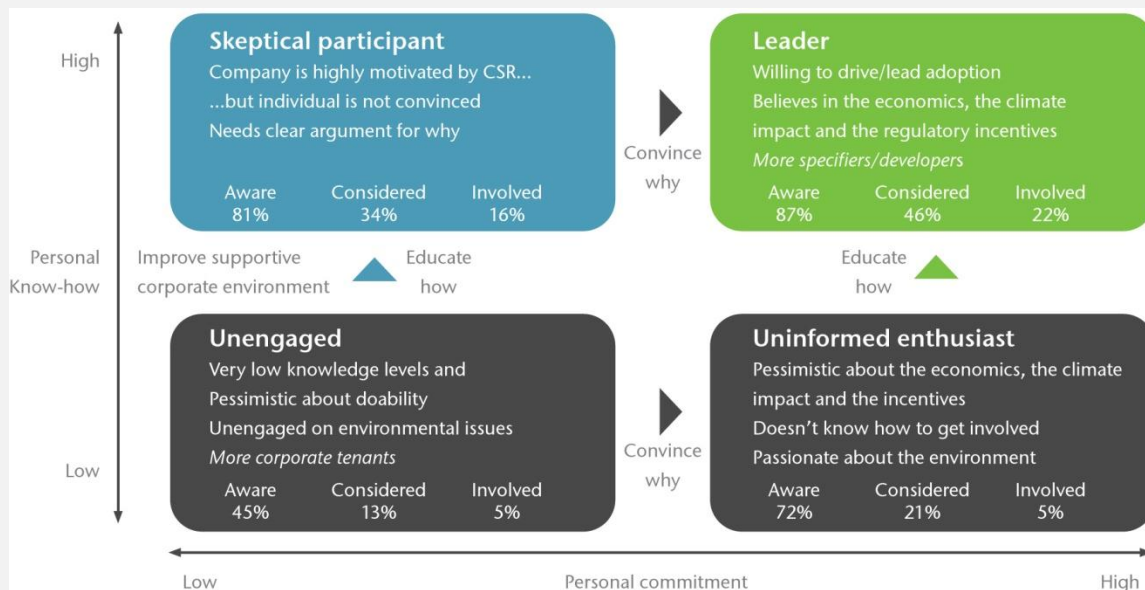


Figure 3 - From WBCSD, The personal Know-how x commitment matrix, "Fact and trends", 2007

### 3.3 THE 10 QUESTIONS OF A PROFESSIONAL IN THE FIELD!

What are the 10 questions practitioners ask themselves on day to day basis?

Here they are - and the functional need covered by CONSTRUCTION21!



- What is the "state of art" that I can reproduce on my project? Has it being done before, at what cost? How can I do better than my contenders?  
⇒ **Raise market ambition**
- Who are the qualified professionals I may call on for my project?  
⇒ **Referencing the available offer**
- What are the best cost-effective techniques available to date? Can I contact somebody who has implemented them? How was the experience?  
⇒ **Technical Intelligence: widespread best techniques**
- What are the best available resources in order to improve my knowledge on a topic?  
⇒ **Market Education**
- Where can I share and exchange amongst peers?  
⇒ **Foster collaborations and communities**
- What is really green? What can help me to focus on real performance?





⇒ **Transparency and performance**

7. Where can I be professionally trained?

⇒ **Increase knowledge**

8. What's happening? What is the latest news or trends?

⇒ **Information**

9. What's happening in neighbouring countries?

⇒ **A window on Europe and the World**

10. What are the global, European, or local requirements coded by regulation? How do they apply to my company or my project?

⇒ **Link to collective goals and policies**

### 3.4 NATURAL DIFFUSION BY INTERNET OF BEST AVAILABLE TECHNIQUES (BAT)

Construction21 aims at spreading the Best Available Techniques within the construction sector through the use of the internet.

Quoting the ARCHITECTURE2030 US Movement ([architecture2030.org](http://architecture2030.org)):

*“(...) if we incorporate the “best available demand technology” in our building designs (roughly equivalent to meeting the 2030 Challenge targets), we can reduce the Building Sector’s energy consumption by 2030 even further. Under this scenario, the EIA [Energy International Agency] estimates that we would reduce the need for building operations energy by an additional 8.1 QBtu and reduce U.S. electricity capacity by 177,700 megawatts between now and 2030, roughly the equivalent of 355 large coal or gas fired 500MW plants. This would reduce CO2 emissions from building operations by a staggering 29.8% below 2005 levels by 2030(...)”*

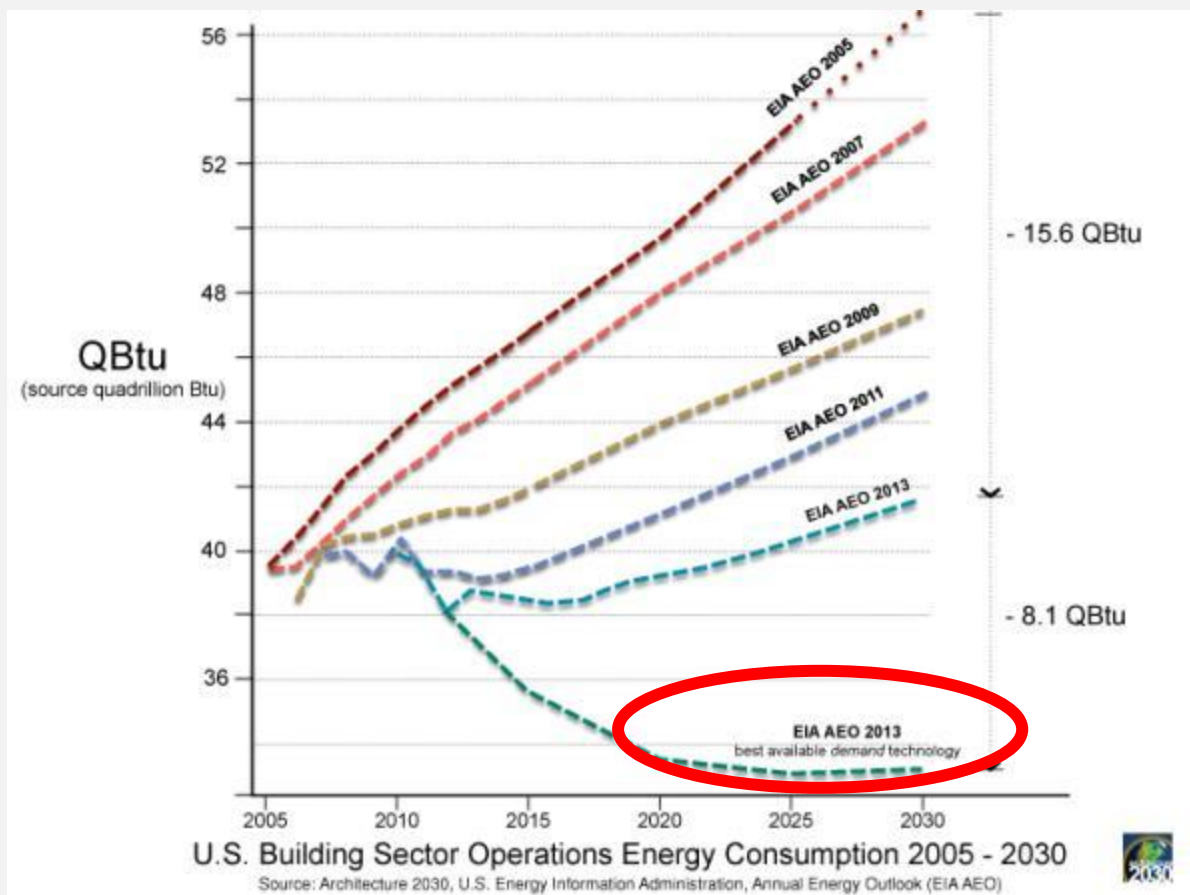


Figure 4 - Building Sector Operations Energy Consumptions on BAT (Demand Side), US EIA, AEO, 2012.

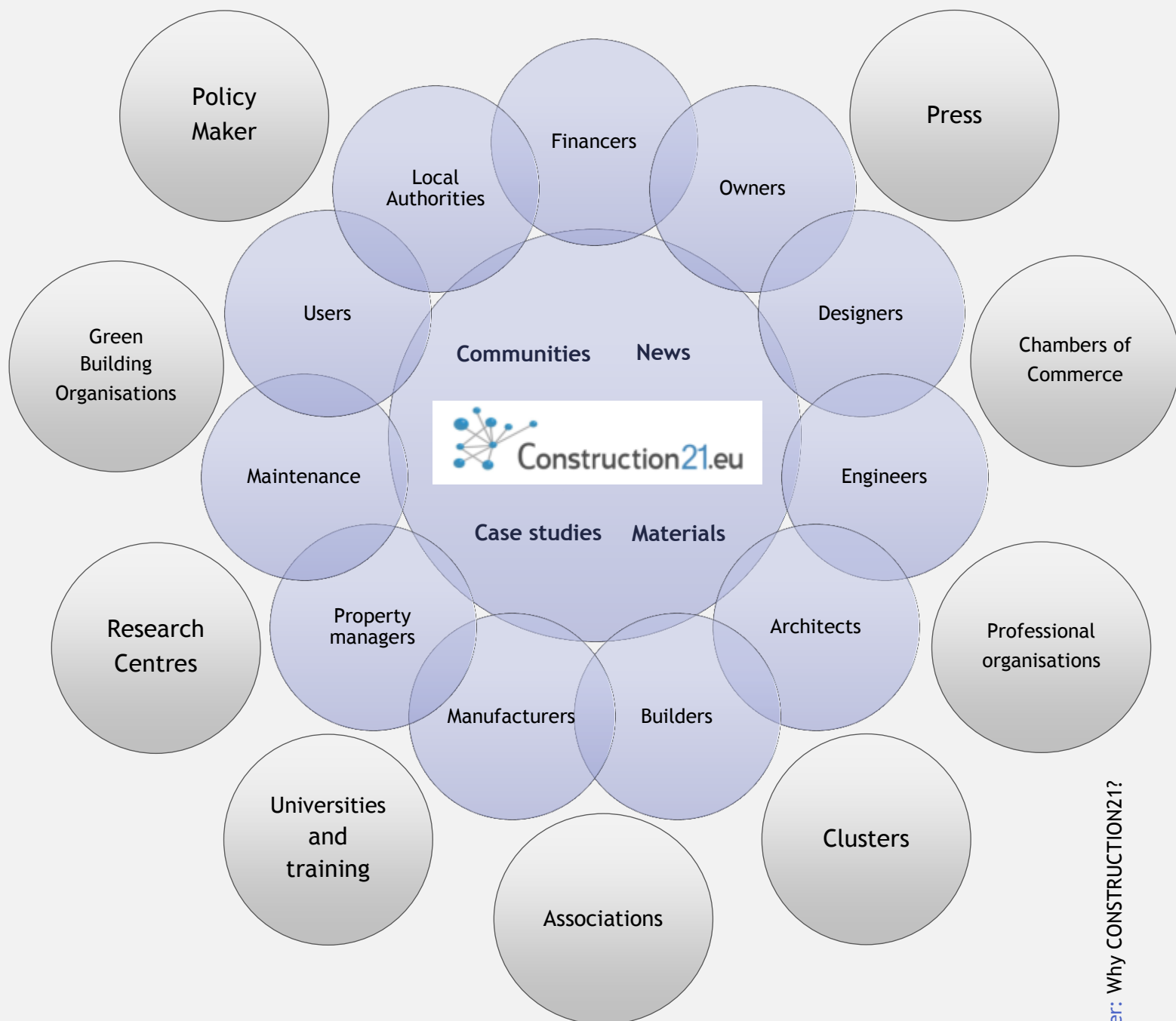
Construction21 utilized the internet to dramatically increase the diffusion of best practices.

### 3.5 THE CONSTRUCTION21 USER ECOSYSTEM

To face the challenge of modifying “business as usual” behaviour requires the cooperation of the different players involved in the construction sector and the life cycle of buildings. Diversity contributes to tackle collectively the hurdles in the value chain.

In each country, real estate and building professionals are invited to join and answer collectively the questions raised by the platform.

This unique ecosystem of users registered in CONSTRUCTION21 is represented here.



## 4 FURTHER INDUSTRY AND MARKET ANALYSIS

### 4.1 THE EUROPEAN PROPERTY & CONSTRUCTION MARKET

A global picture of the current situation in Europe reflects that while Eastern Europe will experience significant new building construction and requires a massive renovation effort on a sub-standard building stock, Western Europe will experience continuous infill activity (on already crowded land) and upgrading of good building stock but not sufficiently performing to meet current energy efficiency targets.

The pre-2008 building boom resulted in many new buildings but only a reduced among of them presented the suitable ambition and results to be considered clearly beyond the minimum level of certified green buildings.

A significant reduction in the last five years of construction activity levels due to the international economic and resource crisis among other reasons has resulted in difficulties for the construction industry; in particular, for short-term speculative investors.

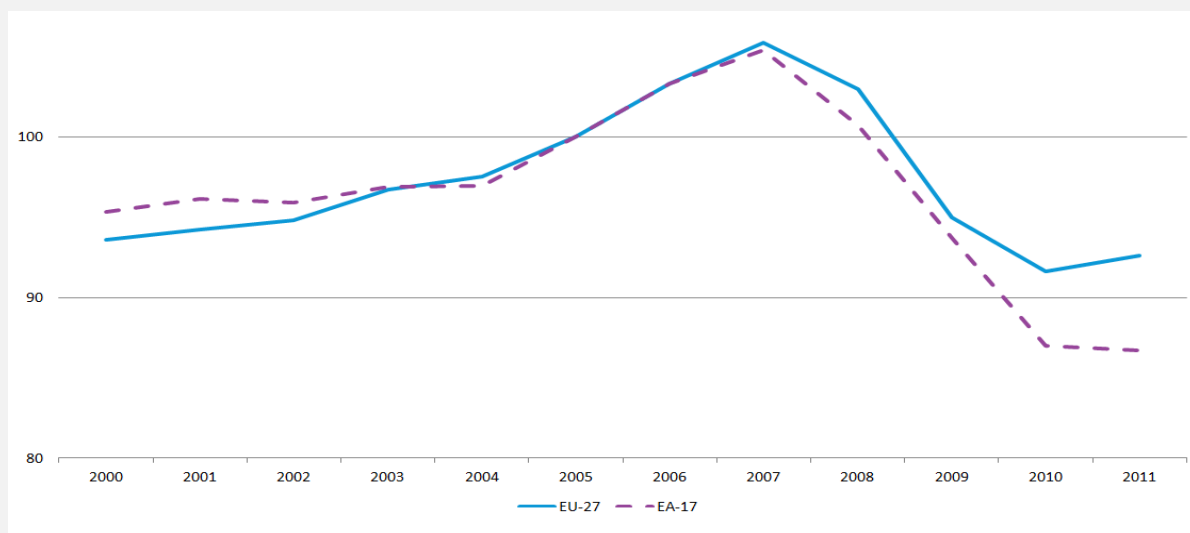


Figure 5 - Trends in Building Permits (index) - Eurostat

Without a doubt, the message that “quality sells” has been heard clearly by building owners and investors in today’s challenging times, as well as that there is a close alignment between green building principles and long term financial value. This has created opportunities for more strategic, professional companies who can build applying higher standards. The “flight to quality” will benefit the most competitive companies and reward responsible behaviour. It was often the “build fast and sell fast” developments that were the worst offenders with regard to energy efficiency and environmental safeguards.

New countries accession to the European Union and resultant legislative changes has increased the strategic outlook of higher quality construction and companies aligned with sustainable construction objectives and capabilities.

Companies are improving their capability while leading international companies have entered new markets bringing an increased level of professionalism but also the possibility of a larger scale of negative impact. From a green building perspective, there is a significant increase in awareness of managers and the business community towards green issues and energy efficiency.

For a considerable portion of the business community, investors and other property managers have required, as a condition of occupancy, better, healthier and more energy efficient and environmentally friendly buildings. As a result, both client requests and projects that require private, voluntary certifications such as DGNB, LEED, BREEAM, HQE and others have significantly increased. In a deflated economy, “green” means lower obsolescence and better resisting buildings in the market.

To take an example on the second largest market place in Europe after London, 3.6 million sq. meters are empty in Paris at the end of 2012. Users are moving from non-sustainable and the oldest buildings to newer and more energy efficient ones, often at the same cost. This indicates sustainability and energy performance are being taken seriously as a crisis-triggered movement of users. The expected “green value” means green “resilience” of assets in the market.

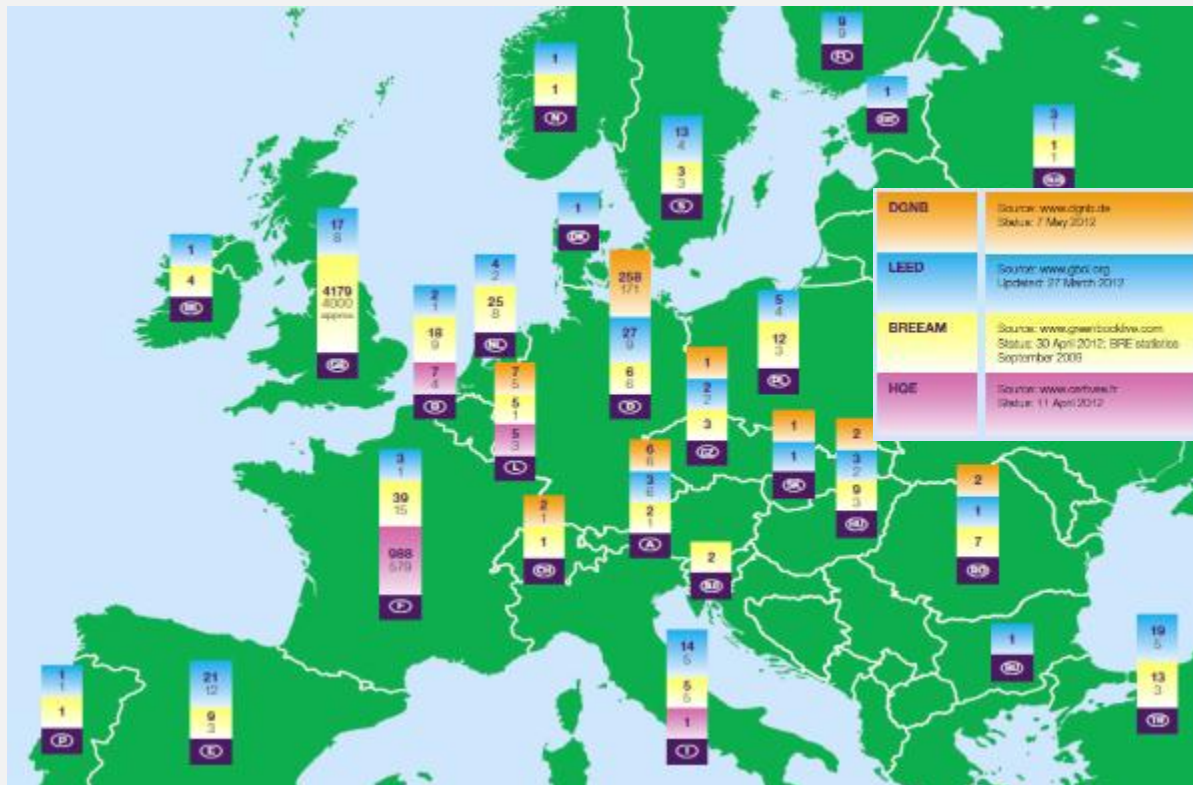


Figure 6 - Figure 6 - RICS stock of certified buildings (under certification for LEED), 2012

Today these requests for certification recognition are spreading from the international real estate world to the local markets. The effectiveness of such rating tools in fostering the competitive streak in developers and investors and raising the bar will bring many more buildings at the top ten percentile of the rating tools (DGNB Gold, LEED Platinum, BREEAM Outstanding, HQE, Excellent, etc.)

The developments and regulatory changes described below will ensure that the market for green buildings will increase significantly. In addition, increasing awareness of the benefits of sustainable construction creates a significant opportunity for achieving success with the most rigorous performance standards of the voluntary rating tools.

Renovation is starting slowly, because of well-known organizational barriers: a decision for huge thermal refurbishment is above all a “real estate” decision, involving a re-thinking of the asset and very large capital expenditures. This may only occur in a future date, when financial provisions exist, and when the building is being totally refurbished according to a property plan.



Over the period 1990-2010, energy efficiency increased by 20% in EU-27 countries at an annual average rate of 1.1%/year, driven by improvements in the industrial sector (1.7%/year) and households (1.6%/year) (see figure 7.).

Within this trend, *thermal refurbishment of the existing building stock is still not taking place very heavily regarding this trend.*

- **Household sector:** over the period 1990-2010, energy efficiency in the household sector increased by 27%, at an average rate of 1.6% per year (Figure 7). Most of this progress was due to space heating (improvement of 1.8%/year) followed by large electrical appliances (1.4%/year). However, part of this improvement was offset by an increase in the number of appliances and larger homes. The combined effect of these two factors increased the energy consumption per dwelling by around 0.4% a year on average, offsetting around 45% of the energy efficiency improvement achieved through technological innovation.

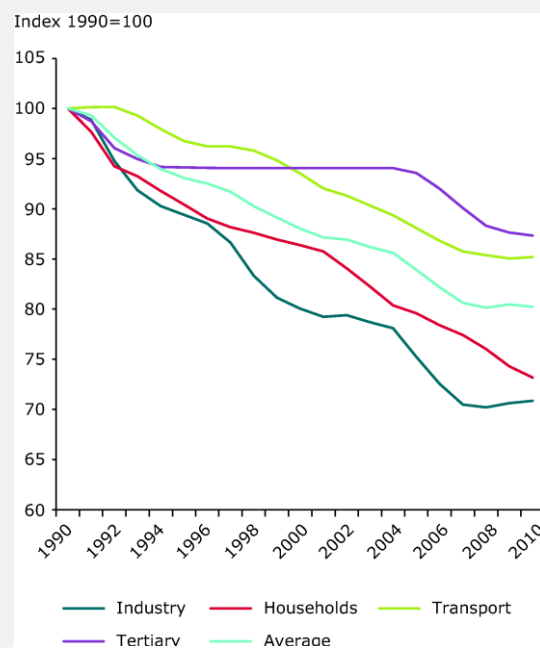


Figure 7 : Odyssee ODEX - energy efficiency index (EU-27). Source: Odyssee.

- **Energy efficiency** improvements for space heating occurred as a result of better thermal performance of buildings encouraged by mandatory efficiency standards for new buildings, increase in the penetration of condensing boilers and heat pumps and thermal retrofitting of existing dwellings. All EU countries have developed thermal regulations for new dwellings, some of them being introduced as far back as the seventies. These standards set theoretical maximum heating consumption for new buildings. However, the magnitude of the impact of such standards varies across countries, depending on the number of standards upgrades, their severity and the annual volume of construction (i.e. the share of new buildings in the total stock). It is estimated that due to new building codes dwellings built in 2010 consume about 40% less energy than those built in 1990, however these newer dwellings represented only 20% of the total stock in 2010.

## 4.2 REGULATORY ENVIRONMENT

At the European level there is a clear shift towards encouraging green economy as a high priority solution for overcoming the global economic crisis, as well as for increasing energy security and mitigating climate change. Over the last five years, Europe has reshaped major existing policies and set more ambitious standards that must be reached by the Member States in the immediate years to come.<sup>1</sup>



The recent strengthening of both EU “Energy Performance in Buildings Directive” (EPBD) and Energy Efficiency Directive with the objective of transform them into a stronger tool for encouraging energy

<sup>1</sup> While the parameters of “Europe” are defined for purposes of Construction21 international as the whole continent of Europe, the legislation of the 27 (soon to be 28) member states of the European Union are highlighted here as 1) they represent, by far, the largest economies of Europe and 2) the European countries currently outside of the European Union are often inspired or encouraged by the EU Directives as they aspire to join the EU or find matching legislation beneficial for promoting trade relations and remaining competitive within the trading area.

efficiency in buildings is also a good sign that improvements in general construction practice is under progress. The improved Directives set new milestones to be implemented by each Member State that intended to develop a significant market for energy efficient buildings over the next 10 years.

At an international level, the World Green Building Council, national GBCs, UNEP<sup>2</sup>, World Business Council for Sustainable Development, the International Energy Agency, and other organizations are endeavouring to elevate the importance of buildings in efforts to mitigate greenhouse gases. The “post-Kyoto” conferences occurring in Copenhagen, Cancun, Durban and Doha all failed to reach a global climate agreement but increased dramatically the awareness of governments and business regarding the impact of buildings on greenhouse gases emissions and highlighted the opportunity of buildings as the “low hanging fruit” of climate change mitigation.

Today Construction21 International network will join forces with existing networks to develop further “in the ground” collaborations amongst practitioners.

## 5 CONSTRUCTION21 ANSWER: COLLECTIVE INTELLIGENCE

The challenge to significantly improve the energy, environmental and economic performance of the construction, property and related industries is a systemic one. The discussions and future decisions require an ability to engage a wide variety of important industry actors from architects and engineers, to bankers and real estate consultants, to policy makers and government leaders, to products, materials, services and technology providers, to researchers, teachers and students. It is also essential to address all aspects of the building cycle including design and planning, financing, construction, operations, and demolition (or preferably de-construction) as well as all stakeholders from tenants and households to owners and investors and citizens of each and every community.

Collective Intelligence is the antidote and will provide the momentum and optimal forum to address the challenges a highly fragmented, diverse, and geographically widespread construction and property industry faces in the effort to shift toward a sustainable built environment.

The power of information technology gives us incredible tools to provide information, send messages, provide feedback, and connect one on one or one with many.

It is, however, essential that the chosen tool be supported by expert organizations who 1) understand the sustainable construction topic and the complex market interactions that must occur 2) are independent of a particular approach yet dedicated to the necessary level of positive transformation that must occur and 3) can provide a suitable base of informed and engaged participants to demonstrate the tool is of sufficient influence and credibility to ensure commitment and participation of users of that tool.



The Construction21 International network has those qualities due to the careful selection of founding partners and their demonstrated success in their national markets and on the European and international stage as Green Building Councils, technology universities, business associations, and as an information technology provider with demonstrated success in sustainable development communication tools.

<sup>2</sup> The United Nations Environment Program – Sustainable Buildings & Climate Initiative is, perhaps, the most relevant.

While the Green Building Councils have been phenomenally successful in transforming markets across the globe, they remain impeded by the challenges of forming and developing a Green Building Council in many nascent green building markets. The World Green Building Council wisely requires aspiring national groups wishing to form and establish a national Green Building Council to demonstrate independent and substantial progress in their operations and mission thus ensuring only strong organizations emerge in this important function.

There is, however, a challenge in that many of the countries in most need of a capability to address the systemic challenge of promoting greener buildings have in place many barriers that inhibit aspiring groups from making progress. They challenge to become an effective association in the timeframe and in the level of capability necessary to address the critically urgent need to substantially reduce the negative environmental impact of the construction and property industries.

Construction21 delivers information seekers a cost free, information-rich knowledge sharing tool that is customized to the needs of the sustainable construction topic. It combines the best of both local and international sharing of best practices where practitioners can easily find construction ideas in climate zones similar to their own and be inspired by their peers.

Early advocates in nascent markets can use the Construction21 tool to progress the theme and build the momentum and critical mass necessary to drive change and later establish “bricks and mortar” institutions such as a Green Building Council or other effective local advocacy groups as resources and market conditions develop.

In mature markets, where Sustainability and Energy Efficiency in Buildings is first a national priority, the proliferation of commercial and non-commercial initiatives may lead to market disorientation and weak progress into day to day operations. The market stakeholders will consider the environmental shift a headache and will refrain to commit to action. In these particular countries, the set of information presented by Construction21 will pave the way to a good comprehension of tools and achievement the market can demand and undertake.

For green building solution providers, Construction21 International provides an effective way to reach across borders to cross-pollinate ideas, technologies, products, and services. It is a powerful tool for European convergence and can pave the way toward a “European Building Performance Declaration” through transparent reporting; achieving the heretofore unachievable ability to explore actual performance across the continent.

**International development is under way: join us!**

More details at the end of the document: [follow this link.](#)

## 6 PARTNERS

Construction21 was created by a consortium of nine partners to speed up the building market's transition towards sustainability. The project was selected within the call for proposals "Intelligent Energy for Europe" in 2010 and thus enjoyed strong support from the European Union during its first two years.

Construction21 is also closely linked to Build UP, the European Website dedicated to energy efficiency in buildings. The two Websites exchange content and the most outstanding European case studies entered in Construction21 database are also visible on Build UP.

You want to consider taking a role into Construction21 and consolidate your role as a leader of the sustainable building community in your country, don't hesitate to contact. ([Follow this link.](#))

### French Institute for Performance in Building ([www.ifpeb.fr](http://www.ifpeb.fr))



IFPEB manages a shared consultancy between building, real estate, energy and industrial companies. These collaborative actions stimulate the shift to new contracting, financial and technical models, and speed up the transition to a green building economy. IFPEB was at the origin of the project and project coordinator during the time of the IEE project, and transmitted the operations of the French platform to the recently formed chapter CONSTRUCTION21 France, created in France with a wide range of national partners.

### German Sustainable Building Council ([www.dgnb.de](http://www.dgnb.de))



The focus of DGNB's work is to strengthen society's sense of responsibility by promoting active environmental protection and the construction of sustainable buildings. One of the most important objectives of DGNB is the development and operation of a transparent certification system for sustainable building, namely the German Sustainable Building Certificate. Other major objectives are to provide effective planning, construction and operating tools to meet the criteria of sustainability and a platform for knowledge transfer and networking.

### PE INTERNATIONAL AG ([www.pe-international.com](http://www.pe-international.com))



PE INTERNATIONAL AG provides services (consultancy) and software solutions for all environmental activities related to production, products and systems, and for corporate sustainability reporting. PE INTERNATIONAL has adapted its services especially for the requirements of building industries and their suppliers. Services comprise: Life Cycle Assessment (LCA) and Life Cycle Engineering (LCE), Eco design/Design for Environment (DfE), Energy Efficiency benchmarks and Material Flow Analysis (MFA), Environmental Risk Management, Environmental Communication and Environmental Product Declarations, Environmental Management, Green House Gases (GHG).

**ANCE: Italian Construction Contractors' Association** ([www.ance.it](http://www.ance.it))



ANCE is involved with Administrative Authorities in governing the territory, planning investments and designing interventions; it interacts with the Italian government regarding Energy Efficiencies and Renewable Energies legislation and it dialogues with political, social and cultural Institutions at National and European level.

**UCV Regional Union of Chambers of Commerce of Veneto**  
([www.ven.camcom.it](http://www.ven.camcom.it))



Coordinator of the local Chambers of Commerce towards the other Regional, National and European Institutions, support to enterprises especially SMEs local stakeholders and Public Bodies.

**Vilnius Gediminas Technical University** ([www.vgtu.lt](http://www.vgtu.lt))

VGTU is a wide range multi-professional academic and research institution with advanced activities developed in eight faculties ranging from architecture to construction and fundamental sciences. The Faculty of Architecture is a national broad professional education entity providing training in a full range of architectural activities from regional planning, urban design and landscape to volumetric architecture, interior design and renovation.



**Romania Green Building Council** ([www.roGBC.org](http://www.roGBC.org))

The Romania Green Building Council is a non-profit, non-political association encouraging the market, educational and legislative conditions necessary to promote high performance construction that is both sustainable and profitable. The organization has over 130 member companies from all major stakeholder groups involved in building sector such as Investors, Developers, Architects, Engineers and Technical Consultants, Producers of Construction Materials, Construction Companies and Facility Managers. The RoGBC is the main organization representing the voice of the green building community in Romania.



**ESCI-UPF: UNESCO Chair in Life Cycle and Climate Change**  
(<http://www.unescochair.esci.upf.edu/>)



The UNESCO Chair in Life Cycle and Climate Change is an innovative research group, internationally well-known, pioneer in developing and implementing the methodology of Life Cycle Assessment (LCA). The UNESCO Chair is working on Life Cycle Management, while building capacity through education and research and providing an international approach. It provides compatible solutions that are meeting the demands of the market, social expectations and respect towards the environment.



**International Information and Resources Center on Sustainable Development** ([www.ciridd.org](http://www.ciridd.org))



The favorite scope of the CIRIDD is the promotion and the management of change for a sustainable economic development. Our organization is also involved in sustainable development and environment knowledge management activities designed towards public and private organizations. CIRIDD is IT partner.

**BUILD UP** ([www.buildup.eu](http://www.buildup.eu))

BUILD UP is the European web portal for energy efficiency in buildings created by the European Commission. BUILD UP aims to promote better and smarter buildings across Europe by connecting building professionals, local authorities and citizens. Its interactive web portal will catalyse and release Europe's collective intelligence for an effective implementation of energy-saving measures in buildings. The media can support this key action by raising public awareness and bringing actions at the local, regional and national level to the widest possible audience.



**European Agency for Competitiveness and Innovation**



Energy, transport, environment, competitiveness, innovation - Europe today is up against extraordinary challenges but also great opportunities. Whether it is about promoting smart energy use and renewables, creating markets for eco-innovative technology, switching to more sustainable freight transport, or getting better information to SMEs, environmental improvement and commercial success can actually work together.

To deliver efficiently high-quality European programs and initiatives in these areas, the European Commission has set up the Executive Agency for Competitiveness & Innovation (EACI) to manage on its behalf the following programs: Intelligent Energy for Europe; Enterprise Europe Network, Marco Polo, Eco-Innovation, IP Projects.

## 7 FEATURES: THE LOCAL TO GLOBAL APPROACH

### 7.1 CONSTRUCTION21: AN INTERNATIONAL NETWORK OF LOCAL PLATFORMS

Here are three undeniable facts, in 2013...

1. No local Real Estate or Construction sector is fluent in English (except the UK);
2. Local policies and market organizations may be radically different;
3. Building performance indicators are still heterogeneous throughout the countries.

...Three reasons to build European solutions bottom-up from local building realities.

The English-language international platform is a central one, used to display local content, duly translated, and pushed to European diffusion and as global database that conveys the content from other countries' local platforms.

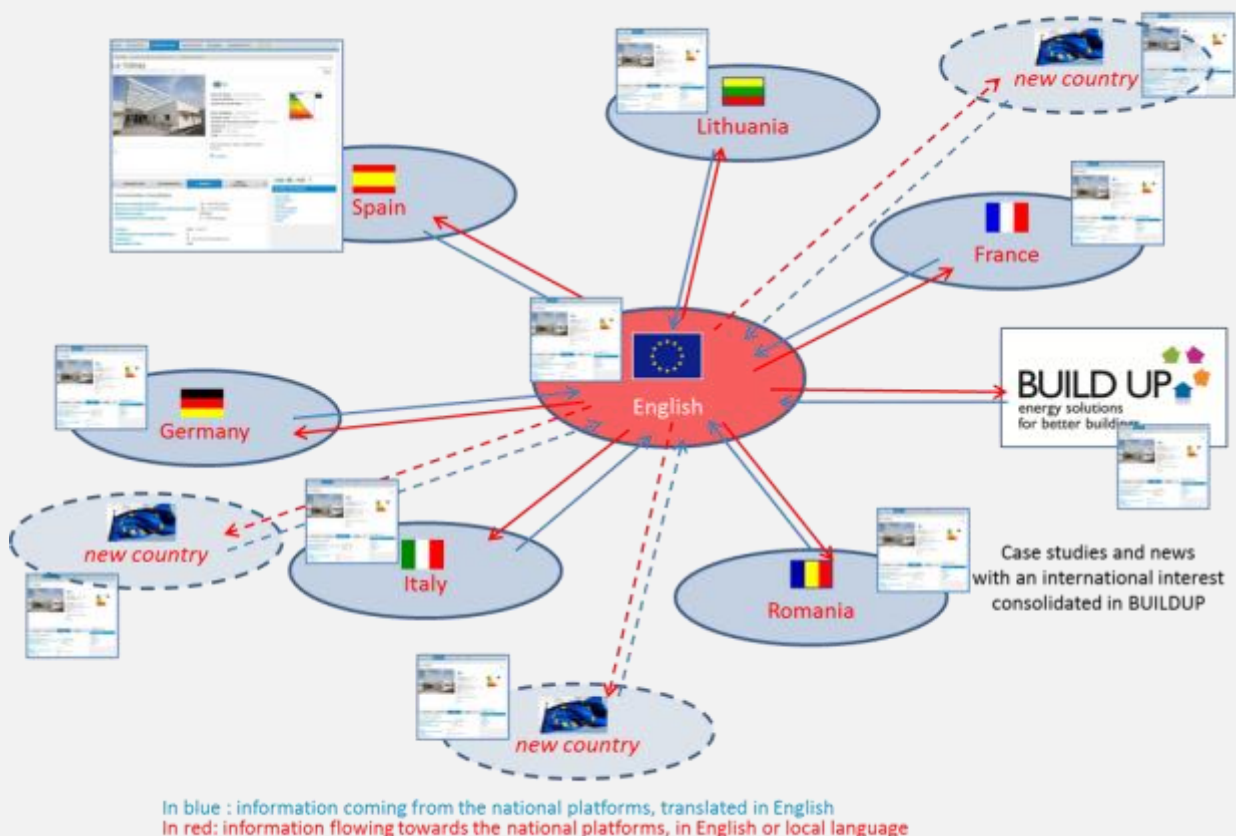


Figure 8 - Scheme of local, European C21 platform and link to Build-Up.

Today six countries... International development is under way: join us!

More details at the end of the document: [follow this link.](#)

## 7.2 STRUCTURE OF EACH LOCAL PLATFORM

A local platform is built with the existing features and contents:

1. Case-studies of amazing building projects and products;
2. Online communities;
3. News;
4. Social networking;
5. European “pushed” content and cross-country enrichment.

2

### Communities by themes:

Forums, documents, agenda, favorite websites,  
(Life Cycle Analysis, Energy Performance Contracting, indoor air quality, smartgrids, green value, ...)



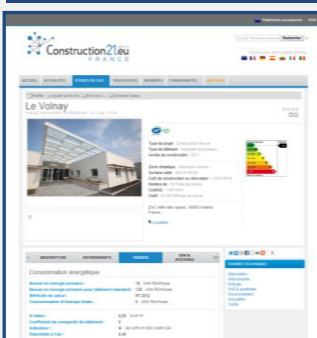
2



Direct link to  
professional  
social networks

1

A database of  
performing  
construction projects



A collection of  
innovative materials  
and equipments

3

Green building  
news

See it on line... [www.construction21.eu](http://www.construction21.eu) .

### 7.2.1 A FOCUS ON CASE-STUDIES

Case studies: the green race is on!

Let's break the frontiers: this network has collected and will continue to collect cutting-edge case studies to create top performers and the best products throughout Europe.

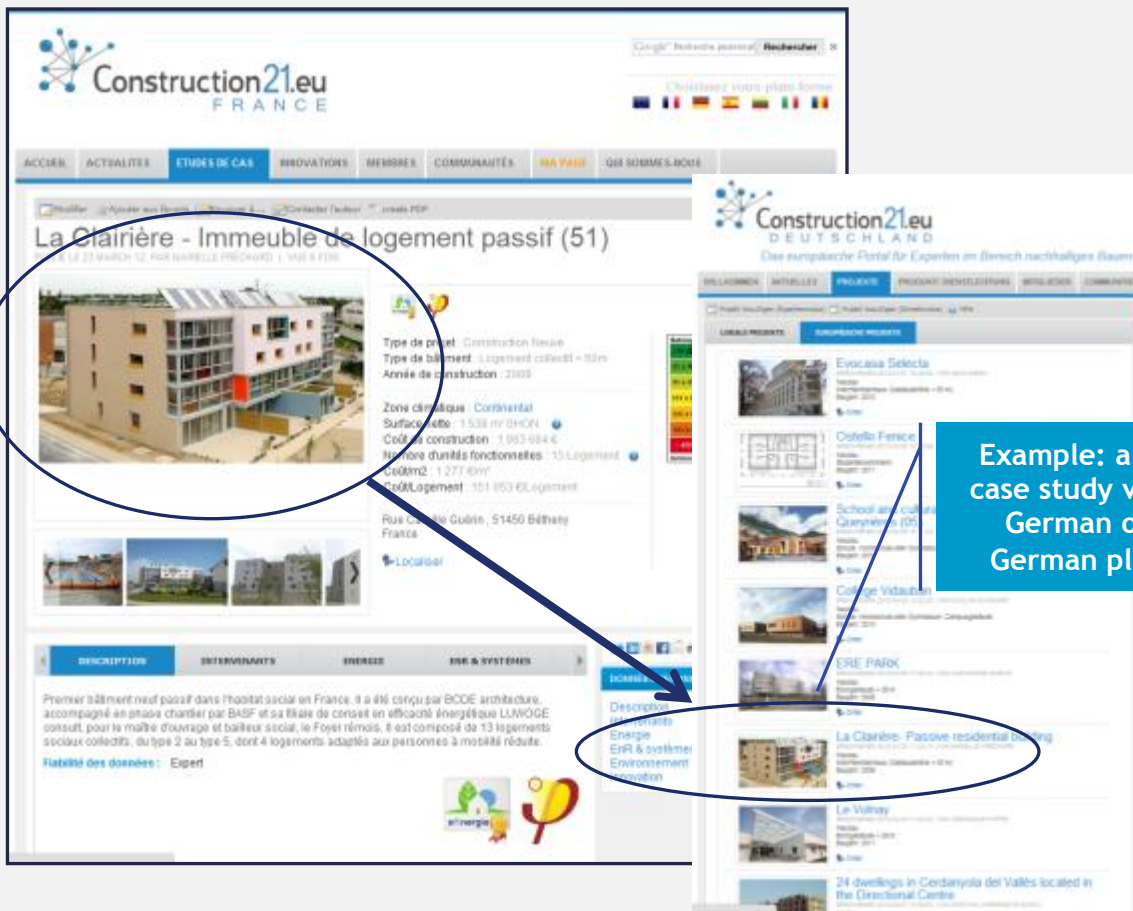
These cutting-edge case studies- classified by building type- are developed to allow declaration of products, systems and devices used to reach performance excellence, with full data available (documents, drawings, etc.), and facilitating dissemination of innovative solutions. All the solutions are listed in a searchable database.

Case study structure:

120 quantitative and qualitative criteria, compatible with European initiatives to create harmonization in performance indicators (CEN TC 350, SB Alliance...), with these criteria the same in all countries:

- Description;
- Stakeholders and testimonies;
- Energy performance;
- Renewable energy and systems;
- Environmental impact;
- Costs;
- Urban environment;
- Special focus on innovative products or services.

➔ **An international window to promote national know how**



The image shows two overlapping screenshots of the Construction21.eu website. The left screenshot is the French version, displaying a detailed case study for 'La Clairière - Immeuble de logement passif (51)'. The right screenshot is the German version, showing a list of case studies where the same French project is visible as 'La Clairière - Passive residential building'.

**Example: a French case study visible in German on the German platform**

### 7.2.2 A FOCUS ON A PRODUCT DATABASE

- In each building, 10 products can be presented in detail, within the context of the new or refurbished building
- Direct access from Product section
- **Product or service**
  - o Material ;
  - o Equipment ;
  - o Building system ;
  - o Contract or financing system ;
  - o Works management.



- ➔ Technical information and testimony
- ➔ Direct access to the producer and the building stakeholders
- ➔ European word of mouth for innovative and cost-effective products.

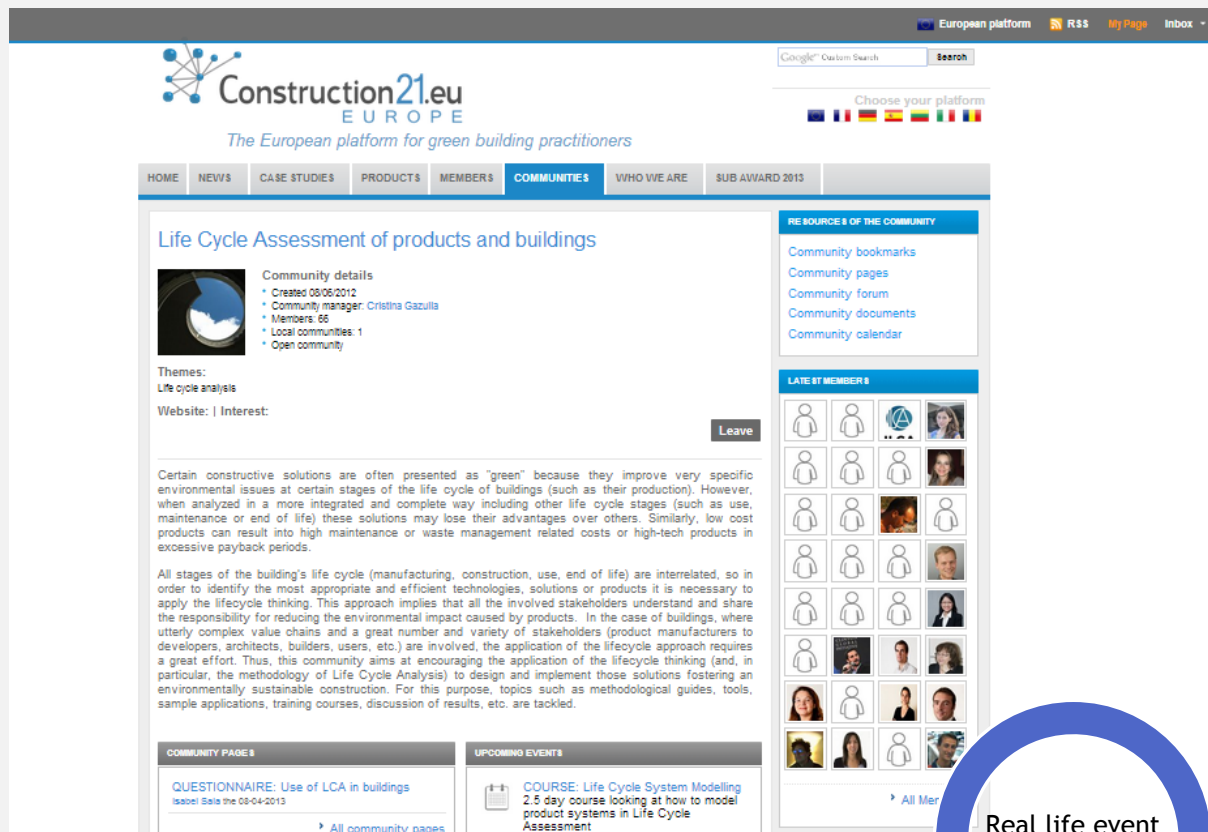


### 7.2.3 COMMUNITIES

Communities are managed ideally by experts, national leaders on their topic.

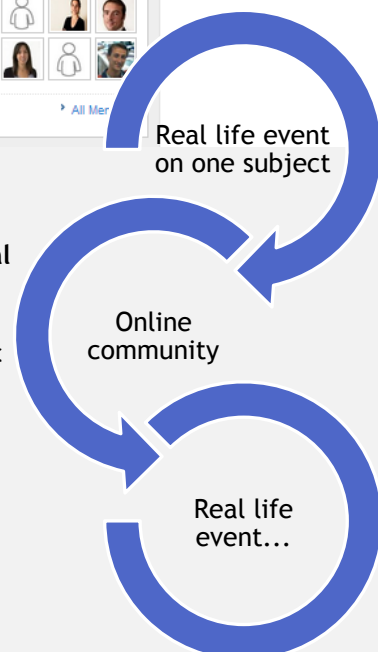
Within a community, practitioners can share:

- Documents;
- Information;
- Events;
- Discussions;
- Bookmarks and RSS feeds.



One very interesting use of a Construction21 community: couple real life event and online communities!

- Create an online community thanks to an event on a specific topic
- Use the Thematic Community in order to organize an event,
- Etc.



## 7.2.4 SOCIAL NETWORKING

Professionals are able to register via their Linked-in, Twitter or Facebook accounts and can share specific contents throughout these social networks.

Registered members of the platform can proceed to request to contact existing contributors to establish direct relationship with them for any purpose.

CONSTRUCTION21 builds itself thanks to existing social networks (Linkedin, Twitter...), the website itself also having social functionalities (friends, etc.).

## 7.2.5 TRAINING DATABASE

Presented in the ECOBAT Trade Show in Paris in March 2013, a training database was unveiled as new feature of the portal. Today only available in France (translations in progress in other platforms), several training institutes saw in CONSTRUCTION21 a means to access a very interesting audience of “green builders”.

This database was co-produced with 10 training organisations; all convinced that the transition toward energy and environmental building will not spread without professional training. These organizations are active on the subjects of construction, sustainable cities, and real estate and participated in the creation of the training database tool and the definition of its detailed features. They also supported the implementation of technical developments, in advance of future royalties referencing their trainings on the site.

Professionals will have free access to the best training in the sustainable building area. Trainings are classified according to a well-adapted segmentation defined by the partner organizations themselves. A search engine selects courses by keyword, by category or target audience, but also by date, time or price. First deployed on the French portal, this will then be developed on other platforms of Construction21 in the near future.

A detailed framework presents each organization and each course, allowing easy comparison between the different available training opportunities.

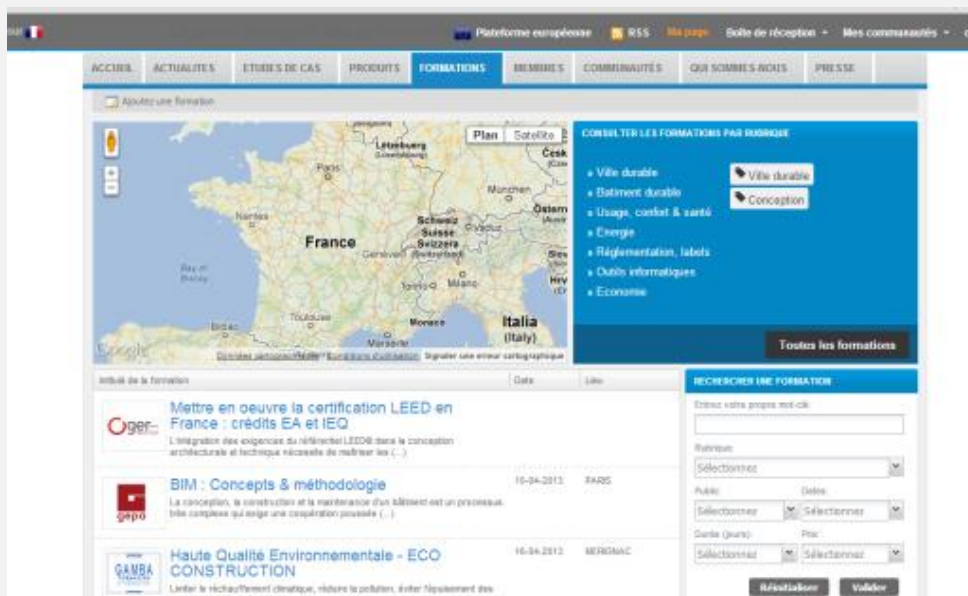


Photo 1 - Page of the training database

### 7.3 UPCOMING FEATURES

The existing platform [www.construction21.eu](http://www.construction21.eu) will be equipped soon with new features under development.

If your organization or company have a special interest in these developments and want to be involved, please don't hesitate to contact Steven Borncamp and Veronique Pappe for CONSTRUCTION21 International (contacts at the end of the document).

#### Features today

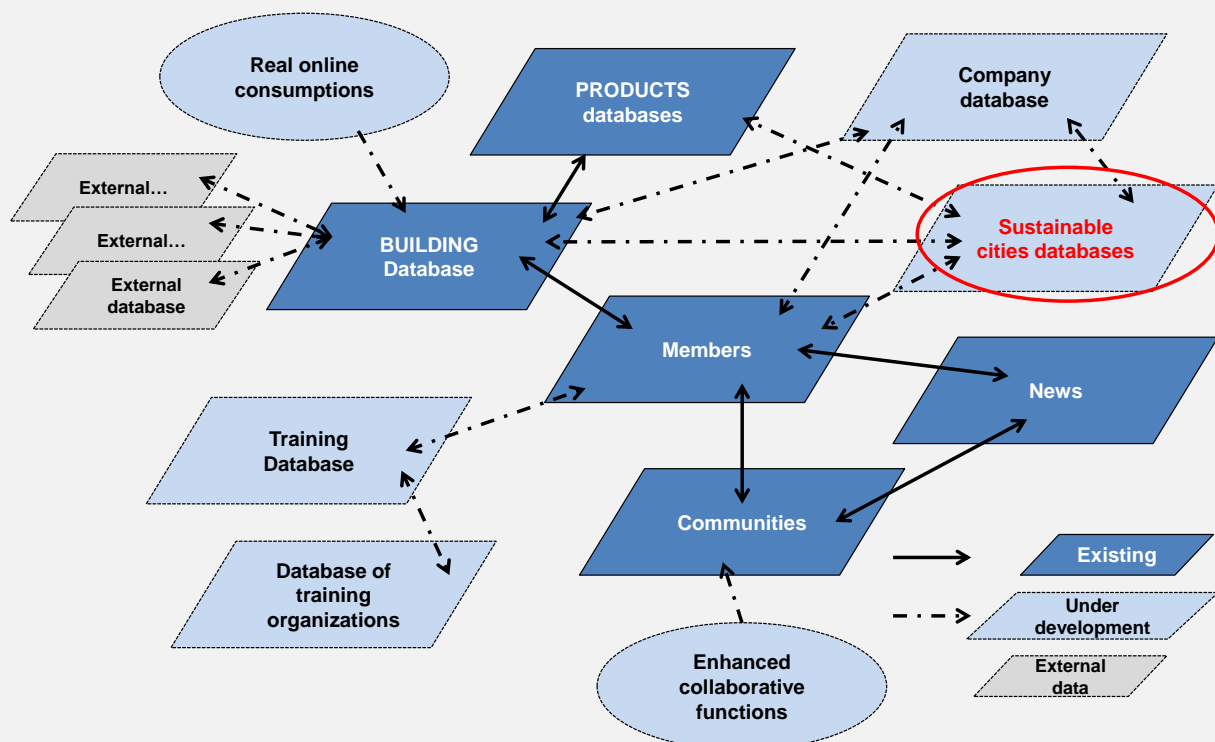
News
Building case studies with detailed information
Products from case studies
On-line communities
Basic social networking
International link between platforms
Training database (France only)
RSS and push to social networks



#### Features tomorrow (in blue)

News
Building case studies with detailed information.
International and local Training Database
Sustainable Cities case study with links to individual buildings.
Products from case studies
On-line communities
Enhanced collaborative features: collaborative documents
International link between platforms
RSS and push to social networks

#### New IT developments at a glance



## 7.4 SUSTAINABLE CITIES

Best buildings databases like the case studies displayed in Construction21.eu are a great source of information for the owners, designers and builders. They foster greater expectations and give solutions, identify actors, and redefine performance level.

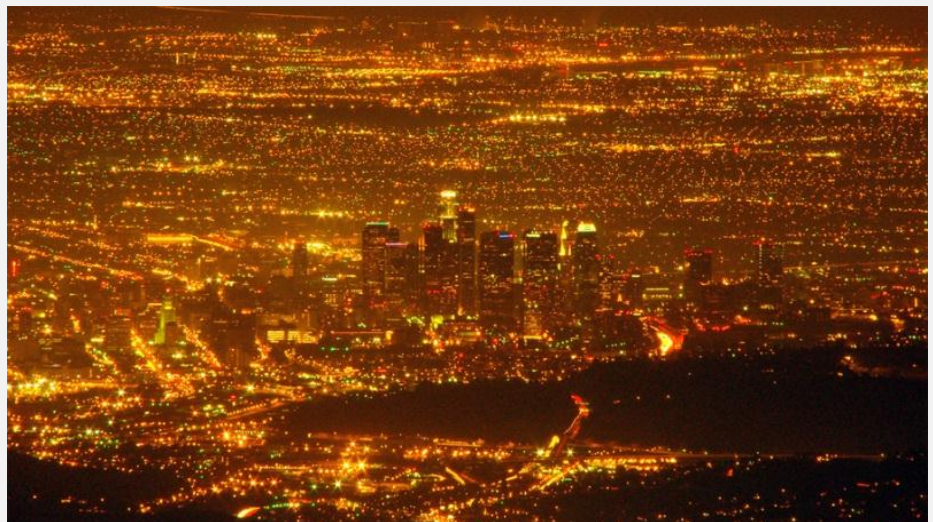
Rarely, however, do buildings stand alone.

It is an offspring of urban planning. It requires transportation infrastructures, energy grids, waste management facilities... Urban planning which determines a remarkable part of building's impact and potential for improvement.

The workforce to drive new sustainable Urban Planning is slightly different from strictly that of designers and constructors of buildings. Green Urbanism will use the latest generation of buildings, open spaces and urban infrastructures (activities, water, energy, information, air quality, waste management and transportation systems).

Soon Construction21 will display sustainable cities or at least neighbourhoods or districts, with an emphasis on the performance indicators to declare.

If interested in joining this working team on sustainable cities, feel free to contact us! Contacts and more details at the end of the document: [follow this link.](#)





## 8 WEBSITE AUDIENCE IN Q2 / 2013

### Content oriented indicators

- 150 On-line communities (growing rate: + 10 per month)
- 450 CASE STUDIES (growing rate: +30 per month) including 250 products!
- 7000 Registered members (growing rate: +1000 per month)

### Users oriented indicators:

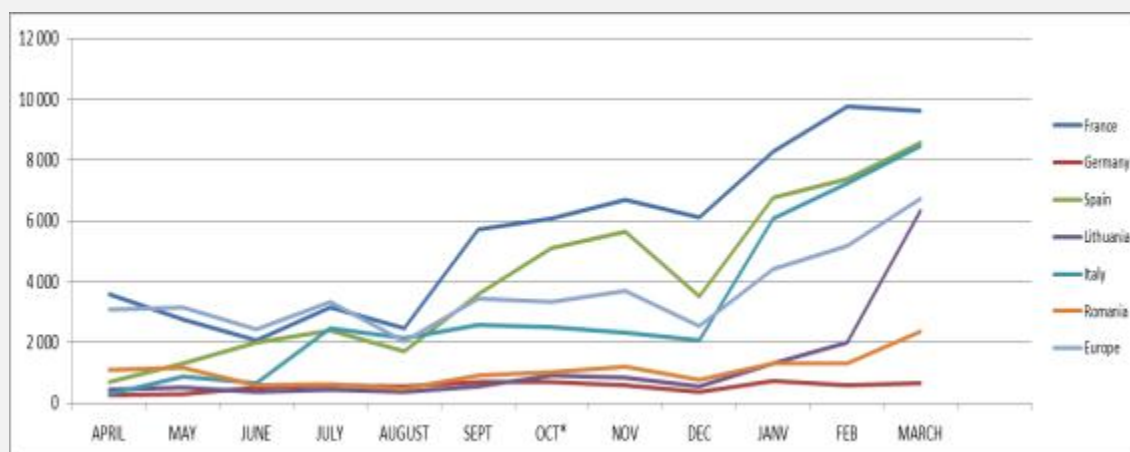


Figure 9 - Total of weekly visits

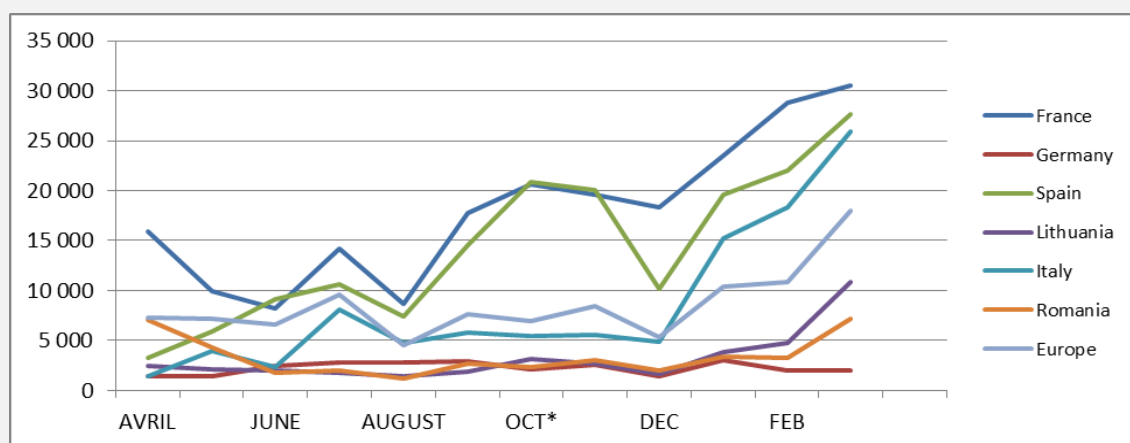


Figure 10 - Number of pages viewed

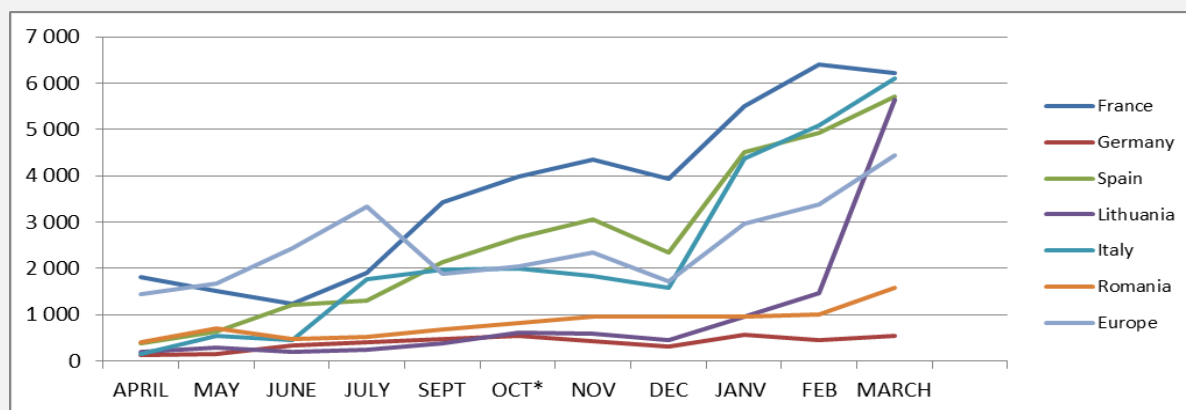


Figure 11 - Number of Unique Visitors



## 9 REACHING A GREAT AUDIENCE IN EACH COUNTRY

### 9.1 ADAPTED APPROACH

It may sound evident: each country has its singular market and culture.

Please consider:

- It may be harder to reach audience in an Internet-mature society, overcrowded with competing offers for informing on sustainability,
- It may be harder to get audience into a country with low penetration of Internet into real estate and construction's professionals.

### 9.2 BUENOS DIAS... CONSTRUCTORES DEL SIGLO 21

In order to reach a large audience in Spain, a strategic communication plan was written and strictly followed along the two years project. Before creating a clear branding strategy, key stakeholders in the green building sector that previously worked closely with the UNESCO Chair in Life Cycle and Climate Change (ESCI-UPF) and who act as an advisory committee were contacted to discuss the project. These stakeholders assessed the needs and to comment on the latest version of the Case Study Form, aiming at improving the platform and also how to best launch. Once the target audience was identified by 14 different sectors, contacts were being entered in a database that has been updated weekly. Currently this database contains more than 2000 contacts.

Firstly, different categories -type of memberships- of cooperation with the different targeted audience and stakeholders were identified based on the time, tasks and commitment allocated to Construction21; secondly, an introductory document outlining the goals of the project, why joining, benefits of becoming part of Construction21 for each type of membership etc. was produced and distributed along with a memorandum of understanding (MoU).

At the first phase of the project, a great amount of time and personnel were allocated to both build awareness on the platform by contacting many stakeholders (and ideally have them register at the platform) but also creating content and engaging numerous collaborators to publish case studies, to review case studies, to create and moderate thematic communities, to publish news, etc. The success of the platform was not only based in having as many members and visits as possible, but also to allow key stakeholder to publish quality information in a free platform, and therefore, exchange best practices and promote excellent examples.

Some of the activities that were done to mobilize the stakeholders can be summarized as follows:

- *Webinars*: Regular conference calls and videoconferences with stakeholders were set up to inform about the project, and also to facilitate training to the case study suppliers, moderators of thematic communities and reviewers. A specific video conferencing system was hired for that purpose. Four types of webinars (45 minutes each), were organized to address the needs of different stakeholders, i.e. reviewers, moderators, suppliers and general public.
- *One to one meetings* with key market multipliers and experts.
- *Emails and follow up*.

- *Preparation and distribution of training and dissemination materials.* A set of tools and manuals were produced and distributed amongst the stakeholders to assist their work (i.e. process of filling in the case study form, how to create a thematic community, how to register at the platform) including tutorial videos and guidance documents. Power point presentations specifically for each type of membership-categories were also prepared.

The target audience, very slowly but surely, started giving a positive response, and this is when the project moved to a **second phase**. The actions included at the second phase of the project, which were key to establish Construction21 as a key and unique European platform for green building practitioners, are summarized as follows:



- *Social networks*

Every time Construction21 added new contents, the content was also posted to Twitter, LinkedIn and specific groups of LinkedIn. By using the right keywords and making the “tweets” interesting, Construction21 received a significant amount of clickthroughs just from people searching.

- *Publication of articles in specialized magazines*

Construction21 was promoted very much by publishing articles to various specialized magazines, both local and national, and other media. That proved to be an extremely effective way to drive traffic to Construction21 platform, and also to build credibility and prestige to the project. In total, 14 articles were written in key magazines.

- *Organisation of events such as conferences, contests and other activities such as guided tours of buildings profiled in Construction21.*

Many different type of activities under the framework of Construction21 Spain were organized to increase visibility and to create a friendly environment amongst professionals to exchange best practices and create synergies and networking opportunities.



- *News and newsletters*

News was published on a regular basis to keep visitors informed not only about Construction21 activities but also crucial news related to the green building market. A total of 290 articles were published in 17 months. A bimonthly newsletter was sent to all the members and the stakeholders who were included in the contacts database. Right after sending the newsletter, a massive increase in visits and traffic at the platform was achieved. Construction21 Spain also publishes thematic newsletters tackling specific topics (i.e. thematic communities).

After two years of project, 71 organizations signed up with an agreement or MoU (thus gave their support) to Construction21 Spain, including public and private institutions from the academic community, research and technological centres, government, a Green Building Council (GBC), material

producers, architects, engineering consultancies, etc. Overall Construction21 has developed close relationships with key actors in the building process and strategic alliances among industry, governmental organisations, NGOs and research institutions.

The next new phase of Construction21 will certainly be exciting and stimulating. ESCI will continue to be the main driving force for the project while trying to get involve more stakeholders. It will keep encouraging and inspiring key stakeholders in promoting buildings that have excellent energy performance and disseminating best practices amongst them. Building awareness of the need to build in a sustainable way will also be crucial. Keeping the independency and also the quality of the information and contents while a new phase of funding mechanisms is starting will be a challenge.

### 9.3 BUON GIORNO, PROFESSIONISTI DEL 21° SECOLO

The Italian Construction21 platform was born in March 2012 with few Italian users. The proper dissemination phase (mail, newsletter, etc.) started in June 2012 with full operability of the website.

From May to December the main efforts were to spread the awareness of the existence of the website, to fill the platform with news and case studies and to contact specialized magazines in order to convince them to publish news in and about Construction21.



In the first months, these activities were not simple, because the website was not yet full of interesting content: in December there were 537 users, 4 to 15 news per week and 25 case studies. From December 2012, we started to use social networks (Linkedin, Facebook, Twitter); this action changed the visibility of Construction21: in January we passed from 537 to 867 users and the news articles rose to about 40 per week.

While in the first period, news and case studies were published only by us and all the users were personal contacts, from January 2013 the traffic has increased and the users were people who learned about the website through social networks or other websites. *From January, we can really say that people started to be fascinated by the project* and most of all by the big opportunities they could have thanks to its existence. The users are growing every day and this is the proof that the hard work provided to feed the Italian web platform is now showing very positive feedback.

Another point which helped us to reach the big public at large was the Metropolitan Solution Contest, “Sustainable Buildgin Awards”: during the first two weeks in March the users passed from 1127 to 1579. Today, the subscribed users are 1721, the total number of published news articles is 576 and the case studies are 35.

Professional profiles of users are extremely varied and cover the numerous roles involved in the field of sustainability in buildings: from the student to the blogger, from the designer to the entrepreneur.

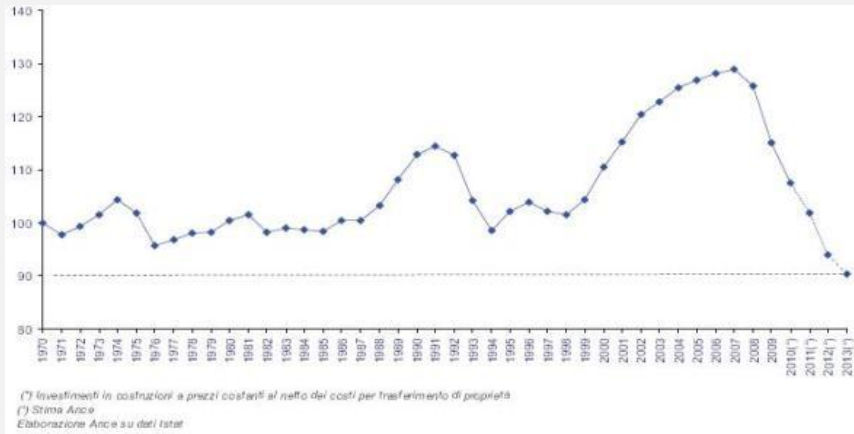
To make the users aware of Construction21 and to mobilize the professional network, the activities have been countless: we used social networks, direct meetings and mailing lists, we have presented Construction21 in numerous meetings and congresses, we released a lot of leaflets, posters and we participated to two of the most known Italian fairs about sustainability.

Some specialized magazines agreed to collaborate with C21 Italian partners, advertising and disseminating the platform with articles in their websites and publishing news in C21, in order to

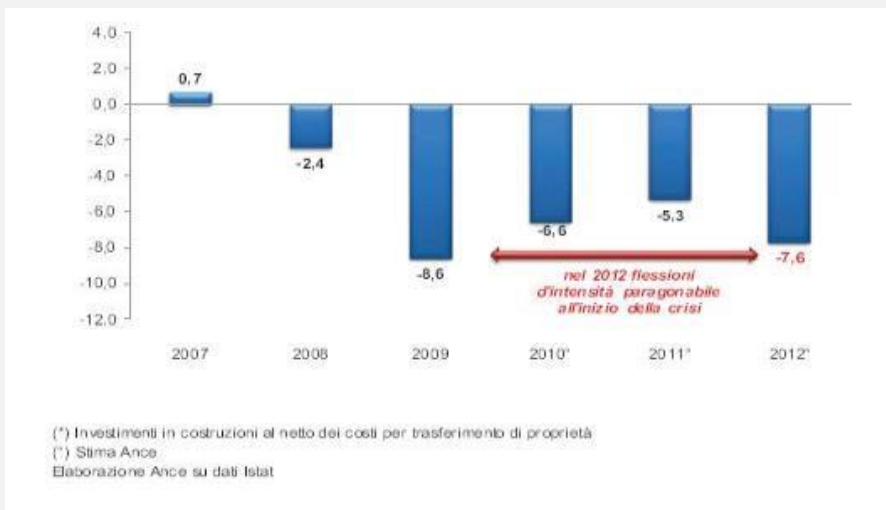
spread the communication through their channel too. In the last months, some websites contacted us directly, asking to collaborate.

### Country Peculiarity...the crisis

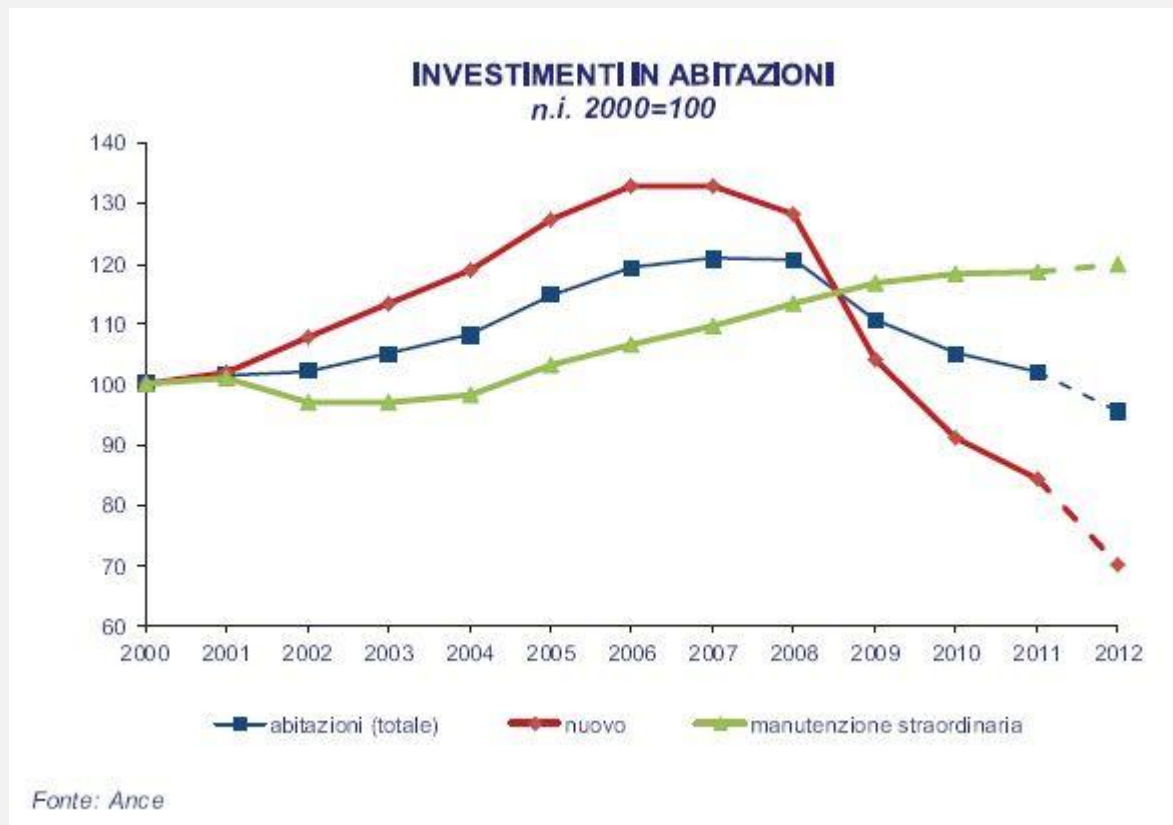
As you can see from the chart below, 2013 will be the year in which the investments in construction will reach the lowest level in the last 40 years.



In 2012, the intensity of the fall in investment is comparable at the beginning of the crisis.



From 2000 to 2012 investments in new houses or buildings have fallen sharply, while investments in upgrading the housing stock have grown (notice that they are not only energy upgrades).



Between 2007 and 2012 the number of sold house has been reduced of 48%, thereby returning to the levels of the early 90's.

The crisis has obviously had strong effects on the labour market: in late 2012, 360,000 jobs (-17.8%) in the construction industry were lost.

### Use of Internet in the Italian market

The use of internet, in particular of social networks, is not so widespread in the construction sector. In general, Italian companies are not so technological as they should be in 2013.

From recent statistics done for the "SMAU Fair" for ICT in Italy, many companies use internet but many of them use internet for sending e-mails or to promote products through their websites. There are not so many people that promote their work through social networks.

The younger generation are the only ones that use LinkedIn, Twitter and Facebook not only to meet people, but to share news, comments and photos or to share CV so it is a good channel to promote activities.

### Most requested and shared contents

The most shared information is related to regulatory updates, new forms of financing and construction practices. The interest on the website is obviously due to the daily news, but also to the case studies: all the users could have updated real information about realized buildings and they could compare the Italian best practices with the international ones.

### Relationship with the university and the research world

The academic world has shown interest in the project from the very beginning. To date, we have signed agreements with 8 Italian Universities (Polytechnic of Turin, University of Naples, University of



Tor Vergata, University of Sassari, University of Reggio Calabria, Marche Polytechnic University, Second University of Naples, UIAV University of Venice), and we have contacts with more than 15 universities. The increased interest from the Universities is given precisely because of the case studies, the heart of the platform, which can provide students with a practical vision of what it means to achieve a sustainable and energy efficient building.

#### Private or public partners who support the platform activities

At this moment, in addition to ANCE (Associazione Nazionale Costruttori Edili) and UCV (Unioncamere Veneto i.e Regional Association of Veneto Chambers of Commerce), the project partners, we have agreements with other national associations such as Oice, Renael, Andil and the Green Building Council of Italy and others which contribute to the development of contents of the platform. Moreover, we have contacts with numerous specialized magazines: in particular, our media partner helps us to feed the platform with news published every day. Some local officials have shown great interest in Construction21, but there has not been until now a concrete response.

#### Future of C21 in Italy

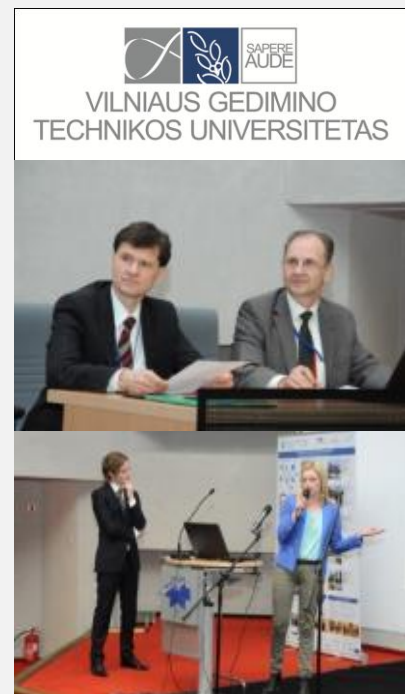
The website is currently widely used as a platform to get updated information, but it is not yet used as a real network platform for exchange. The potential is there and they are very practical, but to reach them we need a more active participation of users, the objective we focus on.

Given the crisis previously described and the tendency of the sector not to the use social networks, the entered case studies do not yet represent a database of best practices, but universities are taking momentum in the use of Construction21.

### 9.4 SVEIKI, STATYBININKAI 21-AJAME AMŽIUJE

The IEE Project Construction21 opened new fantastic and realistic opportunities for cooperation of diverse stakeholders of construction process in Lithuania. Thanks to close cooperation of the project partners, the advancement was really great. Construction21 was indeed the first coordinated European initiative where VGTU team brought together professionals of development, planners and architects, construction companies, material and equipment suppliers, service providers and the users.

Many meetings and events took place before Lithuanian partners achieved mutual credit and understanding that only the joint and well-coordinated efforts of professionals from different business segments could make a real impact on the construction market *and gradually change user's behaviour towards choosing the user-friendly and environment-sensitive buildings of higher energy efficiency, durable quality and reasonable expense.*





Partnership between the major Lithuanian business representatives was established. Carefully moderated by VGTU, team collaboration agreements signed at the start of the project have turned into real cooperation between companies of real estate developers, construction, planning and design, building materials and equipment as well maintenance services.



as



Three most outstanding success stories of the Construction21 project in Lithuania are:

- The planned audience numbers were reached and exceeded in developing the internet platform [www.Construction21.lt](http://www.Construction21.lt). The number of registered users exceeded 1500, 85 case studies of sustainable buildings were directly presented to more than 10.500 construction related professionals, and more than 750.000 professionals were informed indirectly on internet, TV, radio and our events about the project achievements.
- Case studies of the most advanced buildings and urban complexes were presented on the internet platform [www.Construction21.lt](http://www.Construction21.lt) attracting great interest in the project from Lithuanian business, public and research sectors.
- Green Urban Planning community at [www.Construction21.lt](http://www.Construction21.lt) has attracted many professionals and other users to access to the valuable documents from the project conferences and seminars. The accumulated content is already being presented to VGTU students in architecture and engineering.
- Collaboration with national authorities has been established to bring green building principles to national legalisation and regulatory documents. The Ministry of Environment and the Environment Committee of the Lithuanian Parliament hosted several events and are committed to continue collaboration in professional's training, building's certification and legislation upgrade;
- As a result of close cooperation, common interests and joint events in the project, a useful partnership between business, research and the public sectors in construction was established. That logically leads Lithuanian team to establishing the founding member's group for the Lithuanian Green Building Council. 15 companies have signed their commitment for becoming founding members of the association;

Sustaining the process initiated by Construction21 in Lithuania will be managed by the non-profit international Construction21 AISBL and closely moderated by future Lithuanian Green Building Council.



Lithuanian GBC is developing its activities in close regional cooperation with Latvian and Estonian GBCs that in their turn have interest in Construction21: international network.

## Focus on organization of events

VGTU, together with Construction 21 partners and the Parliament Committee of the Environment of the Lithuanian Republic organized a conference “Green Architecture - Innovative approach” (GAIA 2012)<sup>3</sup>. The main goals of the conference were oriented towards promotion of the achievements of IEE project Construction 21 on National and International levels and consolidation of the Green Building community. It became a real national Green Building forum and tremendous dissemination campaign for Construction21.



Three seminars in the European Information Bureau of Parliament of the Lithuanian Republic were organized prior to the conference in May, June and September 2012. Covering aspects of green urbanism and architecture, sustainable engineering and energy preservation, green building certification, user's involvement and legislation the seminars paved the ground to achieve the planned goals of the conference. The conference programme<sup>3</sup> included presentations from Germany, Romania, and Lithuania (C21 partners), as well as Italy, Latvia, and Sweden and it was held on October 25-26, 2012.

E-conferencing: the conference and the community-building seminars were transmitted on-line and on the Parliament TV channel multiple times repeatedly, also published in VGTU's weekly journal “Inžinerija” and e-resources<sup>4</sup>.

The main goal of the seminars and conference was to highlight one of the sustainable development priorities that are described in National sustainable development document.

All seminars, conference, meetings and round tables were a professional discussion about the Sustainable building exchange platform Construction21, “green” architecture and urban planning, society participation, buildings modernization, energy efficiency. During these events, the Construction21 team invited professionals, scientists, entrepreneurs, materials producers, national and international level government and community representatives to share the best experiences and practices in sustainable construction.



A conference participants' academic community of six active universities from Vilnius, Ryga, Kaunas, Klaipėda, Jelgava was created.



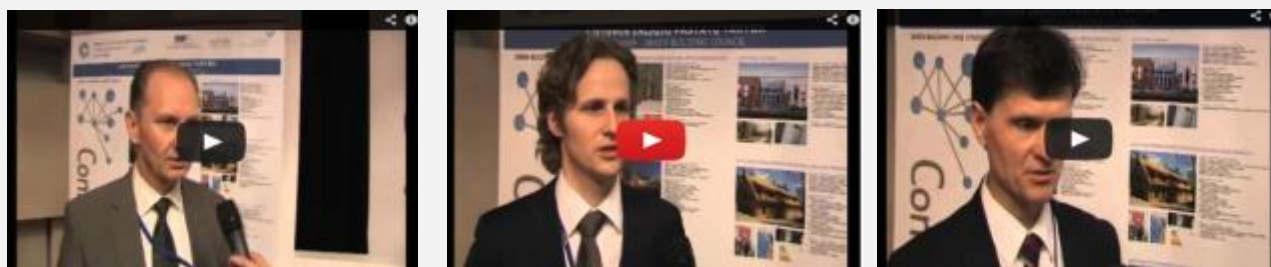
On April 24-27 VGTU presented Construction21 platform during the biggest international construction fair in Baltic sea region countries “RESTA 2013”.

3 Link to VGTU conference : <<http://old.vgtu.lt/konfer/index.php?link=LT.2.563.3334>>

4 Id. <[http://gaia.vgtu.lt/index.php/zaip/zaip\\_2012/schedConf/presentations](http://gaia.vgtu.lt/index.php/zaip/zaip_2012/schedConf/presentations)>

**530 exhibitors from 12 countries** (Austria, Belorussia, Czech Republic, Estonia, Finland, Germany, Great Britain, Italy, Latvia, Lithuania, Poland, and Ukraine) took part in the exhibition.

In RESTA fair the Construction21 team had its exhibition area available for all visitors and organised two very large events. The first one was a round table for future Construction21 governance with potential partners. In this meeting an agreement to establish the Green Building Council Lithuania was signed. The second event was a Construction21 seminar, where Lithuanian green building professionals and real estate developers presented their achievements and future prospects about sustainable development in Lithuania. The VGTU team introduced what it has achieved in two year period and what are the goals for future after April 2013. All presentations and interviews are available on Construction21 platforms to share for all platform users<sup>5</sup>.



## 9.5 ALO, CONSTRUCTORI AL SECOLULUI 21

Construction 21 has been successfully launched in Romania with multiple training sessions and presentations. An increasing number of professionals are using the Construction21 platform as a source of information with growing numbers of monthly unique visitors to the Romanian platform.

The platform has been presented to 74,550 professionals and 90 professionals have been trained representing stakeholders from all areas involved: architects, engineers, academics, professional associations,



eng. Mihaela Nicolau, presenting the

RoGBC's C21 Content Manager Ing. Mihaela Nicolau training Romanian building professionals on C21

<sup>5</sup> <http://www.construction21.eu/lietuva/articles/lt/resta-2013-metu-vgtu-organizuoto-seminaro-alioji-architektra-lietuvos-ateiiai-vaizdo-raai.html>



government entities and NGOs.

A Romanian language training video is available online and a special Community “How to use the C21 platform” was created that includes all the support documents and videos translated into Romanian with info on how to create an account, how to upload case studies, how to publish news etc. The translated tutorial documents and videos were also published on online media.



The German Minister of Transport, Building, and Urban Affairs visits the Construction21 stand organized at DGNB's CONSENSE tradeshow in partnership with IFPEB and the Romania Green Building Council

Stakeholders from all construction areas received information and have been invited to register on the platform. Community managers have been approached and negotiations continue to take place to add expertise in architecture, energy auditing, voluntary certification LEED and BREEAM, lighting, and RES integration in buildings.

73 case studies on the Romanian platform and 8

international case studies have been published on the platform. All building project submissions to our annual “Romania Green Building Council Awards” must be registered as case studies on C21 platform as a preliminary condition to participate in the contest (see section 8.1.7 in this document) ensuring many more case studies will be added in the future.

RoGBC also collaborated with the local partner of real estate consultancy NAI Global in Romania to gather research data, analyse and produce a comprehensive list of “Romania’s Greenest Buildings” and provide additional analysis of the state of the green building industry.

RoGBC created an EPBD Implementation Community on the Construction21 International Platform and has conducted advanced discussions with one of Europe’s top experts on Energy Efficiency in Buildings and on the Energy Performance for Buildings Directive, to moderate it. The RoGBC also engaged author and recognized green building expert David Clark to participate in the European launch of the C21 platform at “Consense” in Stuttgart. He delivered a presentation entitled “Raising the Ambition of Europe’s Energy Performance for Buildings” and demonstrated he is an excellent candidate to provide “thought leadership” to the discussion on a European level.



RoGBC launched the first edition of the “Romania’s Greenest Buildings” report using Construction21 as a research tool

The project has been presented within RoGBC and its members’ international, national and local events, within the many courses of the “Romania Green Building Professional” - Certification & Training program courses, through email campaigns, press conferences, thematic international and national fairs, local and international professional publications as well as on social networks such as LinkedIn, Facebook, Twitter, scribed, YouTube as well as on online TV.



We closed partnerships for collaboration with several Romanian architecture publications and with the Order of Architects from Bucharest - to have info on C21 included in their monthly newsletter. We are also about to close a media partnership with Energy Auditors Association.

Romanian language Leaflets and Rollup Banners have been created and are available at all relevant events. Partnership with Faculty of Urban Planning at the Architecture University has been also recently signed allowing Posters to be placed there and at other relevant Universities.

## 9.6 HALLO, BAUMEISTER DES 21. JAHRUNDERTS

The main achieved result of the project in Germany is the platform itself with all its functionalities and potential for the use of all green building practitioners as well as the whole building sector concerning sustainable construction. It is the base and first step to raise awareness and to spread information. Via communication campaigns, many talks with building sectors representatives and through the Sustainable Urban Building Award, Construction21 has become a known online platform for sustainable construction within the German Sustainable Construction sector.

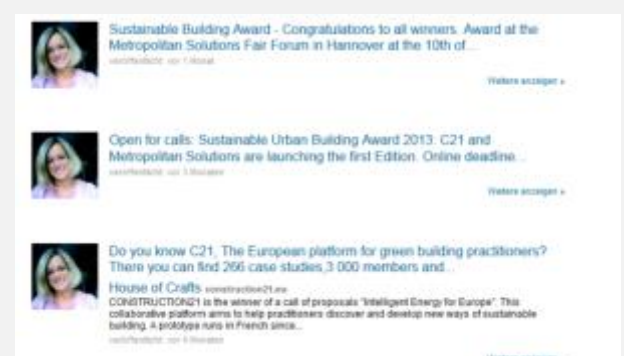
In Germany 475 000 contacts have been targeted directly (Mailings and Social media), 370 000 contacts have been touched by events (indirect (Fairs) and direct (DGNB Trainings)), 600 000 have been contacted via partners or press (newsletter, online platforms, press releases).

The building stakeholders in Germany were not very active online and it was hard to convince and motivate them to use IT regularly to communicate. They were almost “passive users” (also visible in LinkedIn, Xing groups and communities) very reserved concerning creating accounts and registration. It looks like they would prefer observing anonymously. Personal and direct communication is more effective to reach them.

Due to the slow acceptance of C21 within the German market, a market analysis has been made. A series of competitors and comparable web pages have been identified in Germany. The needed IT and content adaptations to enable C21 to be an added value to the market after having identified the competition, have been described and proposed to the project consortium.

- *Mailings and Social Media*

Following the internal communication strategy and plan we communicated regularly (Mailings and invitations) to stakeholders e.g. DGNB, LEED and BREEAM auditors, architects and building owners to raise awareness and announce events and actions. Also internet and press communication were activated as much as possible directly and



indirectly (via partners) in LinkedIn, Xing, Googleplus, facebook and twitter.

Image: LinkedIn and Twitter activities

To fully deploy all communication actions towards German industry stakeholders and experts different levels of the communication plan (mobilization of our company's communication tools, media relations and events, social media and internet strategy) were activated. In addition, observing other communities even singular personal mailings to some active LinkedIn and Xing group members were sent to convince them of the possibilities of C21.

- *Fairs, Conferences, Events and DGNB Trainings*

Physical events were linked to C21 either by using the news/events function or a special community (Consense, PE Symposium) to create more traffic. Also PE and DGNB presented C21 on some important German specialized fairs w/o booth (Roll up, flyers). To present of C21 a video in English and German has been created. Furthermore to spread the ideas of the new communication possibility C21 leaflets in German and English have been designed and distributed.



Fig 2: Construction21 video and leaflet

As a reaction to the slow growing effect of the German platform, a number of additional talks with relevant DGNB members have been done to raise on one hand the awareness of C21 in the sector and on the other hand to explain to them how they can use C21 as a communication tool.



Fig 3: Construction21 on Consense and Bau

- *Newsletter, Online Platforms, Partnerships and press releases*



The partnership with Thomas Daily has become very fruitful, via their Thomas Daily Morning News with 16.000 recipients a number of C21 news were sent. A constant C21 banner in the Morning News has been installed. Their own online platform [www.cityworld.com](http://www.cityworld.com) and C21 established cooperation, every project on CityWorld that is labelled “green” or is certified (DGNB, LEED, and BREEAM) has been linked to C21 where further information’s about the sustainable performance of the building is provided.

As the C21 training is integrated in the DGNB Training without any need for an additional signature of partnerships, already 50 universities are connected to C21 via DGNB. Some more special partnerships (5) are signed by associations, online press/ platforms as news providers. DGNB as project partner contributes with its network.

The partnership with the Metropolitan Solutions Fair has resulted in a successful online contest, Sustainable Urban Building Award, held on all national platforms. See section below.

## 9.7 BONJOUR, CONSTRUCTEURS DU 21IEME SIECLE !

Many meetings had been held and the Construction21 concept was very warmly welcomed by the building sector in France. But the translation of this global interest in concrete actions and direct contributions to the website was not so easy. French building professionals are indeed not so familiar with social networks use and neither in a position to read, nor to post some contents. The strategy implemented was therefore the following.

**First, insert some contents with close partners** to be able to demonstrate concretely the interest of the website. A partnership with France Green Building Council and the 4 French certification companies, and the contribution of IFPEB members and partners (building or energy companies) have provided the first exemplary buildings of the database (around 30 for the launch in March 2012). This first amount of content has helped to convince other stakeholders (building companies, regional green building associations, owners,) to join.

**Second, create buzz.** The official launch of Construction21 was a good opportunity to organize a public event and formalize the partnership with France GBC. A press conference gathered 50 professionals and journalists and triggered 25 articles, thanks to the support of a professional public relations subcontractor. In parallel, a trainee was hired to create some basic tools to ensure the visibility of Construction21 on social networks (automatic sharing of news or case studies, creation of a comprehensive guide explaining how to post news or a case study, invitation to post news articles to information providers identified in the daily press review.

The communication plan has gradually increased in intensity with regular press releases, the cooperation with French green building fairs (Ecobat, Building 360°, Innovative building), the sending of a Construction21 newsletter to registered members once or twice per month, and the frequent sharing of contents on twitter, LinkedIn or Viadeo.

**Third, develop communities.** A review of hot topics and the identification of a relevant organization able to manage a community about them were established with stakeholders. IFPEB has then launched a recruitment campaign by personal approach to convince the pre-identified experts to run a Construction21 community. IFPEB has created a “community manager” guide and a private Construction21 community. Two training sessions, one webinar and a few “one to one” meetings have been organized in Paris between June and September 2012, leading to the training of 30 potential community managers. The direct consequence was the opening (or the reactivation<sup>6</sup>) of 50

<sup>6</sup> Some communities pre-existed in Construction21 French prototype, but many of them were inactive.

communities in October 2012. This action was completed by the direct link between public events and the communities dedicated to the same topic. IFPEB has indeed organized conferences about smart building, Life Cycle assessment or Real energy performances, inviting the attenders to upload conference minutes on the Construction21 related community. The direct effect was a gain of dozens of new members in a few weeks, boosting the number of members in the related communities and demonstrating very positively the interest of the platform.

All of these actions, developed from the beginning of 2012, have generated a progressive development of Construction21 contents and audience. It was completed by a strong action to develop personal links with key professionals to convince them to adopt Construction21, and personal assistance to help them to post some content if necessary.

## 10 C21 SUCCESS STORIES!

### 10.1.1 A FIRST PAN-EUROPEAN BUILDING AWARD BASED ON C21: METROPOLITAN CONTEST!

The contest has been used to start a successful new campaign to generate case studies, members and awareness. The award ceremony at the Metropolitan Solutions Fair has been followed online by more than 8000 viewers.

Press releases raised public awareness for C21 itself and the different events of the platform.


Construction21 and Metropolitan Solutions - the largest international platform presenting cross-industry technological solutions for urban infrastructures - launched in January 2013 the first edition of the *Sustainable Urban Building Award 2013*, which aims at recognizing and promoting high-performance buildings in energy efficiency in Europe.

Construction21 challenged all of the registered members -green building professionals- to submit buildings to the contest to showcase innovative and top-notch solutions and cutting-edge products that are environmentally responsible and resource-efficient throughout a building's life-cycle.

The contest was organized in three different phases: 1<sup>st</sup> phase) case study suppliers were asked to submit a case study; 2<sup>nd</sup> phase) members were asked to vote for their favorite building; 3<sup>rd</sup> phase) winners were announced and the 10<sup>th</sup> most voted case studies were invited to present their work at the Metropolitan Solutions Fair, which took place in Hannover (Germany) on the 10<sup>th</sup> of April. The first place winner gave a presentation to a big audience, while the other 9 winner presented their work via posters displayed at the event..



**How?**

Step 1	Step 2	Step 3
 <b>Select your case study</b>	 <b>Enter your case study at the Construction21 platform</b>	 <b>Publish the case study</b>

.....

**Why participating?**

- Showcase your innovative and top-notch solutions and cutting-edge products that are environmentally responsible and resource-efficient throughout a building's life-cycle;
- Promote best practice solutions and share knowledge amongst key stakeholders;
- Increase visibility at both national and international level
- Create strategic relationships and an opportunity for networking

.....

**When?**

- Submission period: 21/01/2013 - 23/02/2013
- Voting period: 25/02/2012- 13/03/2013
- Winners will be notified on 15/03/2013

.....

**More information**

- To check the Eligibility and Award Assessment Criteria please visit the website [www.construction21.eu](http://www.construction21.eu).
- To enter a case study click [here](#)

The winners were as follows:


Score	Building	Country
1	<a href="#">Omnia Energia Spa head Office</a>	Italy
2	<a href="#">La Casa del Sole</a>	Italy
3	<a href="#">Restoration of San Cristobal House</a>	Spain
4	<a href="#">New agency Groupe-6 in Grenoble (38)</a>	France
5	<a href="#">GALLERY HOUSE</a>	Italy
6	<a href="#">Casa Borghesan-Corti CasaClima B+</a>	Italy
7	<a href="#">DOMUS SOLIS</a>	Italy
8	<a href="#">Residenza Annamaria</a>	Italy
9	<a href="#">Nursing home in Badonviller</a>	France
10	<a href="#">Residencia para personas con movilidad reducida</a>	Spain

Thanks to that initiative, a significant increase of the number of members registered at the platform was achieved. As this contest was certainly a great opportunity to promote case studies, a large number of new case studies were uploaded in all the platforms. Moreover, many of them were also translated in English, which boosted considerably the information contained within the English language international platform. The excellent interaction amongst the different platforms was key to make this campaign a success. Social networks and the creation of promotional materials were crucial as well to help to achieve the main goal.



Fig 4: Sustainable Building Award and Press releases





**Pressemitteilung**

**Sustainable Building Award – Gewinner stehen fest**

**Preisverleihung am 10. April 2013 in Hannover**

Die EU-Initiative Construction21 und Metropolis Solutions hat für den "Sustainable Building Award" – Nachhaltige Gebäude für die Städte der Zukunft" internationalen Wettbewerb ausgeschrieben. Nun steht der Gewinner fest, der am 10. April auf der Messe „Metropolis Solutions“ in Hannover den Preis entgegen nehmen wird. Die Deutsche Gesellschaft für Nachhaltiges Bauen DGNB wird den Preis überreichen und lädt zum „C21 Award“ ein.


Stuttgart, 2. April 2013. Städte und Kommunen müssen sich weltweit zu „Smart Cities“ entwickeln, um den Anforderungen der Zukunft gerecht zu werden. Stadtplaner, Architekten und Experten aus kommunaler Politik und Wirtschaft brauchen hierfür intelligente Konzepte, die ein hohes Maß an Ressourceneffizienz, Nachhaltigkeit sowie Sicherheit bieten.


Ein Schlüsselfaktor für diese nachhaltigen Gebäude ist das Wettbewerb „Sustainable Building Award“ – Nachhaltige Gebäude für die Städte der Zukunft“ hat die EU-Initiative Construction21 und Metropolis Solutions fest. Die Gewinner werden die Anforderungen der Konferenz Smart Cities erfüllen. Nun steht der Gewinner fest. Das DGNB Award für die Städte der Zukunft ist der prestigeträchtigste Preis für nachhaltige Gebäude. Die DGNB Award für die Städte der Zukunft ist der prestigeträchtigste Preis für nachhaltige Gebäude. Die DGNB Award für die Städte der Zukunft ist der prestigeträchtigste Preis für nachhaltige Gebäude.

„Der Award setzt einen wichtigen Impuls für mehr nachhaltiges Bauen in ganz Europa“, sagt die Geschäftsführerin der Deutschen Gesellschaft für Nachhaltiges Bauen DGNB, Dr. Christine Lorenz. „Zu den besten 100 der Städte der Zukunft gehören die Städte der Zukunft und die Städte der Zukunft.“

Mehr als 3000 Nutzer haben das Gewinnerangebot über 40 Projekte auf [www.construction21.eu](#) zum Gewinner ausgewählt. Auf Platz eins landete das Projekt „La Casa del Sole“ in Italien und den dritten Platz belegte das renommierte San Cristobal House in spanischer Stadt von Bilbao.

Die Gewinner des Wettbewerbs werden ihre Projekte auf der Messe Metropolis Solutions präsentieren. Vom 8. bis 12. April 2013 werden in Hannover Zukunftsbauwerke für urbane Infrastrukturen als „Stadt der Zukunft“ ausgestellt.







**Sustainable Urban Building Award 2013**

Zukunft nicht nur diskutiert, sondern auch erlebbar gestaltet. So werden etwa aus d. Straßen, Lärmschuttschilde und an den Wänden verschnittenen Panoramen Bilder. Produkte und städtische Gebäude.

Metropolis Solutions ist die größte internationale Plattform, die branchenübergreifende Lösungen für städtische Infrastrukturen präsentiert. Aussteller zeigen intelligente Lösungen für städtische Herausforderungen der Gegenwart und Zukunft. Construction21 ist ein Projekt (2012-2013), das Anwerder erreichen soll, neue Wege des nachhaltigen Baus zu entwickeln und zu präsentieren.

**Kontakt:**  
 Sebastian Schwarz  
 FE International AG  
 Phone +49 711 341817-51  
 Mobil +49 174 1860077  
 Skype: schwarz\_sebastian  
 E-Mail: [s.schwarz@pe-international.com](mailto:s.schwarz@pe-international.com)





**Wettbewerb**

**Nachhaltige Gebäude mit DGNB**

Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude.

**Wettbewerb**

**Nachhaltige Gebäude mit DGNB**

Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude.

**Wettbewerb**

**Nachhaltige Gebäude mit DGNB**

Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude. Der Wettbewerb ist ein Wettbewerb für nachhaltige Gebäude.



### 10.1.2 A GUIDED TOUR & C21-GOOGLE MAP ON EFFICIENT BUILDINGS WITH C21 SPAIN

A series of guided visits in energy efficient buildings already published at Construction21 Spain platform were launched to bring a better and more straightforward hands-on experience to green building practitioners and also to exchange of best practices directly. It also aimed at promoting awareness of energy efficiency measures and innovative construction systems already implemented in the case studies while introducing the work of Construction21 and its initiatives on sustainable building through the use of interactive local events around Spain. Furthermore, creating synergies and networking opportunities amongst key stakeholders within the building sector was a key rationale for organizing these events.

In total, 6 buildings were visited in 4 cities: Madrid (November 2012), Barcelona (December 2012), Valladolid (February 2013) and Vitoria-Gasteiz (March 2013).

The chosen case studies were as follows: 1) Office headquarters IDOM-ACXT, which was designed and promoted by them in Madrid; 2) youth hostel "Twentytú" which was designed by the architects Manciñeiras/Parés together with the engineer firm IBINSER, in Barcelona; 3) PRAE's building, which was designed by Odi+P and commissioned by the Natural Heritage Foundation of Castilla and Leon and 4) the Envite Grupo Asprona's building, an office designed by the architects firm Alia, both located in Valladolid; 5) a sport centre, Buesa Arena, designed by the architecture department of the regional government of Alava jointly with the LKS engineering consultancy and 6) new office of company Fojansa, which was designed by the architect firm estudioBeldarrain.



Guided tours were conducted during week days and lasted between 2-4 hours. Previously to the guided tour, a comprehensive introduction (i.e. main goals, challenges, constructive solutions...) was given by key experts who were involved actively from the beginning to the end of the project.



Figure 12 - Photo of [Fojansa building](#)

Schedules were filled up quickly; the activity had a tremendously good response from the Construction21 members, which resulted in an increase of number of members registered at Construction21. In total, over 200 experts participated in the 4 guided tours. A thematic community and news were published regularly, with [a remarkable dissemination in social networks](#) and local media on the occasion of the visits. More information on the guided tours can be found in the [Construction21 pamphlet](#).

### Spanish case studies now on Google Maps

A strategic campaign was launched with the main goal of getting better geographical representation in Spain of the cases studies. The Spanish team observed that there were areas where the majority amount of case studies were concentrated: Madrid, Catalonia and the north of Spain.

All the case studies published at the platform were incorporated at Google Maps, including the location of the case studies, together with a brief description of the building and a picture. The map was published in the homepage of the Spanish platform for a number of weeks, thus members could see that there were areas not covered yet by Construction21. In addition, an email to different public and private organizations of non- or low-represented regions was sent in order to encourage and empower them to publish new case studies, putting even more effort to get them on board.

As a result, in a few days, new case study suppliers initiated the publication of energy-efficiency buildings in regions that did not have any representation before, such as Andalusia. There was also a significant increase of registered members from those areas.



### 10.1.3 ARTIST JACOPO FO AT EXPO EDILIZIA WITH C21 AND UCV



The Regional Association of Veneto Chambers of Commerce (UCV) managed to involve famous activist, writer, blogger, Jacopo Fo in Construction 21 and to have him show his case study during the Conference at EXPO EDILIZIA in Rome.

Thanks to the collaboration with Fondazione Fenice and Maurizio Fauri (Engineering), UCV had the big chance to come work with Jacopo Fo and to inform him about our project and about our important mission of transforming the built environment with the help of experts, associations, market players, etc. This is the reason why he gave us his permission to upload data concerning his Casa Fo project to the C21 website and to fill in our list a new and famous

case study.

On the occasion of EXPO EDILIZIA, UCV decided to promote C21 in the South of Italy as the C21 project was already promoted in the North and most of all in the North East of Italy.

On March 2013, UCV had the opportunity to organize a C21 Conference together with Green Building Council of Italy and to promote C21 also through efforts realized by UCV. GBC Italy was a good channel to promote C21 on the occasion of such an important event in Rome.



Jacopo Fo's direct evidence about C21 gave people the proof that C21 is really an innovative tool to promote building sustainability and green economy. He spoke for 20 minutes and he was really happy to promote his buildings and his activities also through an EU project. He explained the importance and his certainty about sustainability, green building and green economy. He is building a solar eco village in Umbria and he showed the information uploaded in C21 [on the following link](#). To better explain his activity and his mission, Jacopo Fo has prepared this video (in the Italian language) containing a virtual guide of his "case studies".



You'll find the video [on the following link](#).

Once his solar eco village will be finish it would be really interesting to upload all his case studies in C21; it would be a really interesting topic and they would highlight case study Italian section.



#### 10.1.4 SHARING NEWS ON SOCIAL NETWORKS

In recent months, ANCE has shared the news on Facebook, Twitter and LinkedIn; in particular, on the Facebook page of Construction21 Italy, which has more than 1000 “likes”, in the twitter profile Construction21 Italy, less followed, and on LinkedIn, in the group Construction21 Italy and in many other groups, through the personal profile of Carlotta Berta.



Since the early days, we have seen how sharing news on social networks are very useful to ensure an increase in the number of visits of Construction21 and registered users. We have therefore increased the LinkedIn groups for dissemination and published every C21 news article and new case study on social media groups that might be interested.

In addition, ANCE in particular and all partners in general monitored shares and comments, sending messages to invite people who showed interest to subscribe. Finally, we have involved through LinkedIn professionals in order to convince them to publish their news on Construction21.

#### 10.1.5 FROM VIRTUAL TO REAL: MEETING THE C21 COMMUNITIES IN REAL LIFE!

Synergies between a Construction21 online community and a real event on the same topic are really powerful.

A conference about “smart buildings” was announced by emailing and via Construction21 news and shared on the other social networks. The Construction21 news and its derivatives on LinkedIn, Viadeo and twitter triggered the number of registered people to rise from 100 to 150 in a few days (on very tight target audience of “smart building” professionals and designers).

During the conference, it was announced that presentations would be available on the Construction21 “Smart building” community. Information confirmed the following day via email and news containing the link towards the community. Immediate result: in 3 days the “smart building” community moved from 30 to 80 members.



In a following step, an invitation to all Construction21 members to join this community with relevant contents moved the members to... 250 members. The expert organization is now followed by a valuable group of professionals interested in this topic, who will be invited for the next conference.

The virtuous circle has just begun.

- Link on the Intelligent Buildings Community: [follow this link](#).



- Success of the conference: [follow this link](#) and coverage by N°1 Building Press LE MONITEUR: [follow this link](#).

#### 10.1.6 “HIGHLIGHTED EUROPEAN CASE OF THE MONTH” ON BUILD UP

The European Commission’s BUILDUP website picked up a Construction21 case study as “Highlighted European case of the month”. Quoting:

*“This building dedicated to a professional audience is an exemplary demonstration of an environmentally friendly and natural resources approach. Energy efficient (BBC level = Low consumption building) and reflecting a committed participation of different actors, it is, indeed, a “sustainable development” approach.”*

*Located in Gargas in the Vaucluse, the House of Crafts combines local materials such as cedar wood, hemp and compressed earth brick, produced locally in Luberon. The roof adopts a complex assortment of vegetation, the structure includes a wall-sensor and one other noteworthy point: the removable sunshade provides summer shade and energizes the building. This house, built in place of a former building of a jam factory, since abandoned, casts a positive image of the district Fournignons and encourages housing in the area, thus promoting urban density.”*



Read the full story on [Construction21](#), [Buildup](#), or go to for full details [to C21 Database](#).

#### 10.1.7 FROM TOO MUCH PAPER TO PAPERLESS AND WEB ENABLED

##### Romania’s “Greenest Buildings Report”.

RoGBC Partnered with NAI Romania one of the world’s leading commercial real estate firms. The goal of the partnership was to gather research data, analyse and produce a comprehensive list of “Romania’s Greenest Buildings” and provide additional analysis of the state of the green building market, all newly identified green buildings would be required to be registered on the Construction21 platform as a case study.

*Publishing the buildings’ case study on Construction21.eu was one of the prerequisites.*



Photo 2 - Case study: Domenii Park Tronson I

Convincing the stakeholders to supply data for creating case studies took longer than expected, however when the report was launched we were approached by stakeholders willing to supply the necessary information and create case studies in order to add the respective projects in the future report. The campaign, helped significantly to promote the Construction21 Romania platform.

In addition, the Romania Green Building Council is now requiring all submissions for its Romania Green Building Council Awards to be entered online into Construction21. This has brought immediate

benefits including 1) an elimination of the prior significant costs in copying and shipping documentation to domestic and international members of the jury 2) visibility of actions and building performance is now mandatory and easier to observe and verify by all members of the building community and 3) a past and expected future significant increase in content posted, members registered, etc. for the C21 Romania platform.

At the date of this report, 73 Romanian case studies have been registered in C21.

### 10.1.8 C21 AT THE ORIGIN OF THE LITHUANIAN GREEN BUILDING COUNCIL

VG TU and the Lithuanian professional community, members of the society, politicians and the project partners have evaluated the positive results of the C21 project, its methods, its innovation, and wished to maintain the platform created by the project; thus agreeing to participate in the continuation of the work started. C21 helped bring all of these important stakeholders together and to motivate them for further grassroots action.

To achieve its objectives, related to the implementation of national policies in the field of energy efficiency and climate change mitigation, VG TU decided to continue the operation of the Lithuanian construction21 platform in the coming year. Therefore, Vilnius University will become an official chapter of the Construction21: international association. Questions of establishment were discussed in the C21 partners' meeting held in Brussels in April, 21-24. Therefore, VG TU, including donors help, has already planned events to secure the continuation of the project.

Participants of VG TU together with the C21 partners planned to establish a national Council of the World Green Building Council movement in Lithuania by this fall. Therefore, the future Green Building Council of Lithuania with Vilnius Gediminas Technical University will pursue associate partnership with Construction21 AISBL.

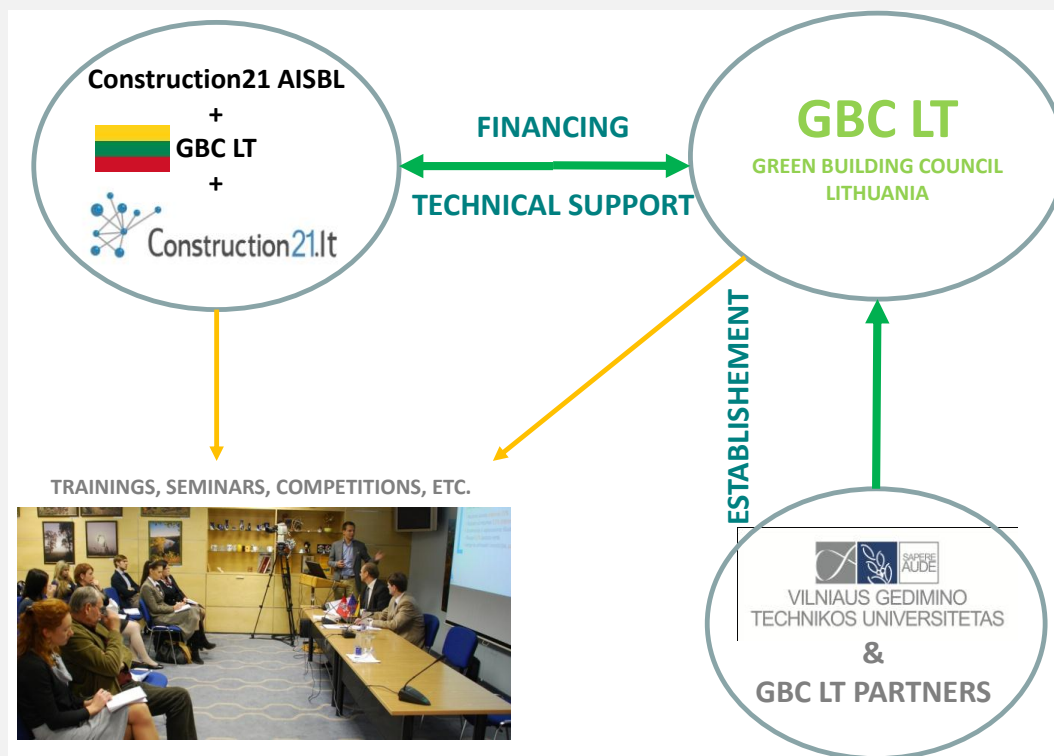


Photo 3 - Construction21.eu structure in context of Construction21 AISBL and governance in Lithuania



#### 10.1.9 C21 IN THE LOCAL ROMANIAN BUILDING CODES!



Building owners that wish to receive financial benefits from Romania GBC within the “Top 1%” program that rewards project developers for undertaking exemplary green buildings are required to upload their energy performance data upon project completion via a C21 case study.

The RoGBC successfully promoted the adoption of legislation for Cluj-Napoca, a major Romanian city that provides a property tax discount for receiving an “A” on the energy audit and a green building certification. A toolkit from RoGBC assisting other municipalities to adopt a more stringent version of the legislation requires that buildings receiving tax benefits must submit their energy performance certificate information via a C21 case study to be eligible!

## 11 GOVERNANCE: CONSTRUCTION21 INTERNATIONAL

### 11.1 MISSION AND OBJECTIVES

The Construction21: international network<sup>7</sup> pursues the international non-profit objectives of information, education and promotion of sustainable construction through the development of the Construction21.eu knowledge sharing platform and the network of engaged country Chapters and Communities, the international team, our information technology partner, and other partners known collectively as the “Construction21: international network”.

The Construction21 International network will serve as a meeting and communication point, offering a network for information exchange and a repository of collective intelligence derived from the sharing of credible knowledge and providing a framework that improves collaboration locally, nationally, and internationally. Through these objectives, the Construction21 international network will significantly improve the environmental, energy and economic performance of the building industry for the whole of Europe and beyond.



Photo 4 - Launch of Construction21 AISBL in Brussels, April 2013.

### 11.2 CONSTRUCTION21: INTERNATIONAL OBJECTIVES

The Construction21 international (C21i) network is formed by several Local Platforms managed by National Chapters and one International Platform.

A local platform is a collaborative platform dedicated to all professionals active in the sustainable building sector of a specific country or area. All local platforms are linked together via a central International Platform which highlights content of continental and international importance and relevance.

With the availability for the International and local platforms, the Association will achieve balance of local relevance and useful exchange of international ideas and best practices.

<sup>7</sup> Legal name for the Construction21 international network is “Construction21 AISBL”

The specific objectives of C21i include, to date:

- to take all necessary actions for the development of the Construction21.eu network and ensure the reliable functioning of this platform;
- seek the necessary funding for the operation, improvement, and maintenance of the International Platform;
- coordinate actions and rules between the different chapters to ensure the global coherence of the network
- support the creation of National Platforms covering the largest possible number of countries in Europe and around the world;
- endeavour to provide tools, exchange of knowledge and mutual support for the success of the Construction21 network and to ensure the continuous improvement of the Construction21 network;
- accommodate the diverse needs of the entire building industry and foster a multi-disciplinary, holistic approach to address the challenges preventing a more sustainable building industry;
- provide information on the performance of the systems studied (at the city, building, or building sub-system level) using scientific measurement, informed testimonials, and other feedback; and
- moderate the content of the Construction21.eu Platform subject to stringent, transparent, and science-based editorial guidelines to ensure the integrity of the content while allowing for diversity of opinion and approach.

The current functionality of the C21i delivers:

- A database of exemplary buildings presenting energy and other green building solutions in case study form;
- A user base of 7000 building professionals;
- A library of green building solutions linked to the related full building case studies in which they are used;
- Networking using a social media technology platform designed specifically for interactions related to sustainable construction;
- A calendar of important international sustainable construction and real estate events;
- Online communities of important, contemporary sustainable construction topics of national and European importance;
- A European and national newsfeed announcing the latest innovations, initiatives, and other important information related to sustainable construction and real estate;
- A database of training courses related to green building and green cities.

### 11.3 PARTNERING WITH INTERNATIONAL ORGANIZATIONS

A global “bricks and mortar” organization can join the movement and would benefit in the following way:

- from using an existing structure at a very low cost
- able to reach existing communities,
- can build upon the cases studies reporting tool with their content,
- can access a significant, relevant and substantial (and growing) existing audience.



International organizations can become member of CONSTRUCTION21 International in order to manage with the existing group a powerful Internet platform and build synergies.

**The CONSTRUCTION 21 International members are at your service to put the existing web tool to work for your project.**

## 12 WHY JOIN CONSTRUCTION21?

### 12.1 JOIN THE MOST EXCITING INTERNET COLLABORATIVE NETWORK

The Construction21.eu online platform is now fully developed, operational and scheduled to be launched as a pan-European initiative to be the most important online presence for sustainable construction. With a significant and growing audience, the platform has established itself as the meeting place for Europe's collective intelligence to accelerate the transformation to a green construction economy.

In its pilot 13 month phase, Construction21.eu has already obtained 7 000 registered users, and a monthly audience of 30 000 unique visitors, 45 000 visits and 120 000 pages viewed. The platform is integrated well with existing social media sites. The involvement of active and competent green building organizations in the platform's development assures this technology platform supports the collective mission of market education.

**The Construction21.eu team is now actively seeking new country partners.**

Green Building Councils or national organizations are the obvious choice for strong partners to develop and grow each countries online capability. The Construction21.eu platform will allow them to participate in a powerful tool that delivers:

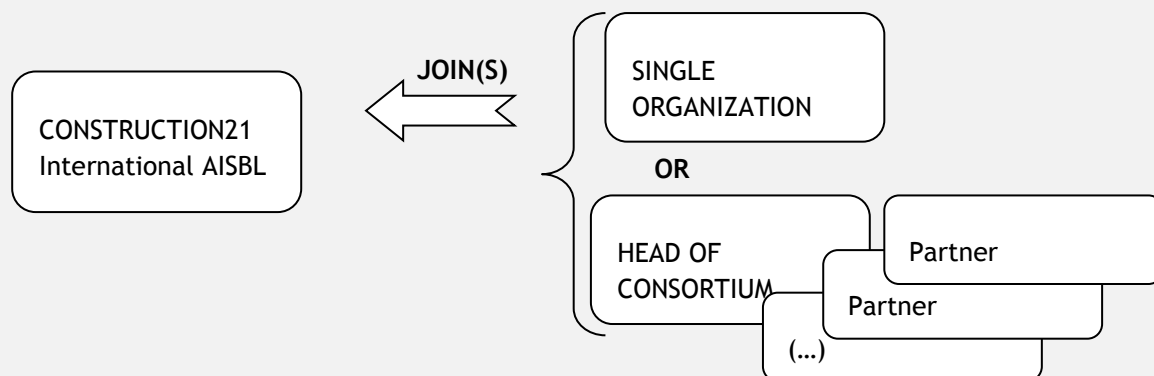
- A database of exemplary buildings presenting energy and other green building solutions in case study formats;
- A library of green building solutions;
- Networking using social media designed specifically for interactions related to sustainable construction;
- An Events calendar;
- Online communities of contemporary sustainable construction topics of national and European importance;
- A European and national newsfeed;
- A training database;
- A national portal linked to the European green building network;
- Opportunities of business lines in your country.



## 12.2 WHO CAN JOIN? HOW TO FORM A LOCAL CHAPTER?

In a complex world of numerous initiatives, the project does not create a new organization but rather clusters the best national existing stakeholders to build a co-owned, nationwide chapter. The local chapter may be composed from ONE specific or SEVERAL existing organisations.

Obligations: this chapter may be able to deliver locally the best “how-to” information to active practitioners leading the green building revolution and gain a national audience. All relevant local and national organization involved in this market transformation will be offered, to participate in and co-own this resource.



### The local chapter

- Pays an entrance fee and an small annual licence fee,
- Is granted an exclusive license to operate CONSTRUCTION21 in its country and to collect related sponsorship and other revenues,
- Monitors its progress,
- Participates to Construction21 International.

### How to join?

You are a well-known national organisation. You play an active role in sustainability or you deal with professionals with a strong commitment to green building.

You are considering a green building database and wishing to integrate a strong quick-growing international collaboration platform.

First step, the new partner must be validated by Construction21 board, upon its ability to mobilize the building professional countries.

For the development of the new Construction21 platform, the Construction21.eu team will then deliver to each participating chapter the following:

- Functional test site in English;
- Spread sheet-based tool to facilitate translation to national platform;
- Two full days of training (in coordination with other new partners);
- Management Documentation including “How to deploy C21 in your country” and “FAQs for website managers”;
- Communication and Promotional tools (Leaflets, posters, roll up banners, ) in English available for easy translation;
- Video and PDF tutorials of “how to register, post and article, post a case study, manage one’s profile, etc.”;

- Training support for future community moderators and case study reviewers;
- FAQs for platform users;
- Reporting tool to provide Key Performance Indicators (KPIs) to understand and manage the performance of the platform;
- Assistance and Management for first year including:
  - o Monthly conference calls, participation in national partner meetings
  - o Daily assistance with management and IT issues
  - o Quarterly analysis of the progress of the project and guidance for further development
- Hosting of the Platform for first year.

### 12.3 COSTS & REVENUES

**Why hosting the national platform for Construction21.eu? 15 lines of revenues identified.**

- Sponsorship revenue from each local platform will be retained by the host Chapter to generate a revenue stream and cover any costs associated with the acquisition, implementation, and content creation;
- Proceeds from the International platform will be shared via a model that apportions funds based on the contribution of each local chapter;
- Construction21.eu is an excellent way to directly and efficiently engage a large number of professionals in the building community to support the green building organizations' collective mission of promoting positive industry transformation.
- The Case Study structure satisfies an often-expressed demand for a broad-based tool to understand the performance of our buildings and to celebrate and learn from our best projects;
- Construction21.eu consolidates these critical and timely conversations among Europe's most important professionals and provides an efficient solution to the challenges of disseminating best practices and facilitating understanding of trends in the energy and ecological performance of buildings
- 15 types of country revenues are identified. Ask the C21 team about them.

#### Costs

- While estimates of national sponsorship revenue are variable - dependent highly on market size and the success of each national platform to engage its community - the Construction21 team estimates an average of 100 hours per month of staff time is a conservative amount for the initial stage of the project that will increase as the international and local online communities develop;
- An entrance and maintenance fee is due.

## 12.4 GUIDANCE AND SUPPORT

The Construction21.eu team will provide guidance through the necessary phases to successfully launch and grow each national country platform of Construction21.eu.

This includes: **Country kick off meeting** at Month 1:

- Project overview : the platform, international network, key factors of success
- Deployment plan : market analysis, different communication tools (presentation) + national plan elaboration (workshops- based on a preparatory work)
  - o Partnerships with other organisations relevant to sustainable construction;
  - o Stakeholders training;
  - o Communication towards press/other websites;
  - o Social media;
  - o Communities;
- Overview/Tour of Construction21.eu :
  - o Front office features;
  - o Back office features;
  - o Translation of vocabulary package.

### **Preparation Phase** at month 2

- o Website translation for new partners;
- o Communication tools translation (leaflet, poster, tutorial, video, etc.)
- o Reception of working platform and entry of initial content;
- o Launch of Construction21.eu for new country partners;
- o In parallel : contacts/negotiations with stakeholders for partnership agreements;
- o Integration of new partners to C21 governance (monthly confcall / seminars).

### **Launch & Promotion Phase**

- o Train and Promote on C21 platform;
- o Communication actions : press conference, social media, meetings, emails;
- o Newsletters (direct mailing and via partners);
- o Training actions : case studies suppliers, communities managers; moderators;
- o Creation of first communities.

### **Full Deployment and Continued Development Phase**

- o Expand new and existing partnerships;
- o Expand communication campaign;
- o Monitor and Guide Content management;
- o Work with C21 partners to elaborate and enact national and European level governance.

## 13 CONTACTS

Please express your interest, ask questions or send feedback to:

- Véronique PAPPE [veronique.pappe@construction21.eu](mailto:veronique.pappe@construction21.eu)
- Steven BORNCAMP [Steven.borncamp@construction21.eu](mailto:Steven.borncamp@construction21.eu)

Address :

**Construction21 AISBL**,  
International non profit organisation  
Rue de la Loi, 227  
B-1040 Brussels  
Belgium

## 14 C21 CASTING

**France:** Véronique Pappe, Siham Ghalem-Tani, Cédric Borel, Christian Brodhag, Massata Niang - **Germany:** Siegrun Kittelberger, Sebastian Schwarz, Anna Braune, Johannes Kreissig, Zsoka Gyetvai, Christine Lemaitre, Consuelo Russelli, Michael Dax, Franck Heinlein, Christian Piehl, Sven Feyl - **Italy:** Carlotta Berta, Chiara Bianchini, Giulio Guarracino, Nicola Massaro, Leila Bizzicari, Erica Holland, Antonio Corso, Ludovica Munari, Flavia di Noto, Francesco de Falco - **Lithuania:** Gintaras Stauskis, Jonas Jaikaitis, Vladas Misius - **Romania:** Steven Borncamp, Mihaela Nicolau, Cristina Siu - **Spain:** Cristina Gazulla, Roser Gasol, Isabel Sala, Pilar del Rio, David Fernandez, Pere Fullana i Palmer, Elena Cuerda - **Internet as a worldwide country...** Vincent Gilfaut, Vincent Jay, Romain Beaulieu, Denis Cocconcelli.