

How social media will revolutionise the building industry towards sustainability?





Steve Borncamp
President of Romanian Green Building
Council



construction = conservative

construction = conservative

+

only incremental changes?



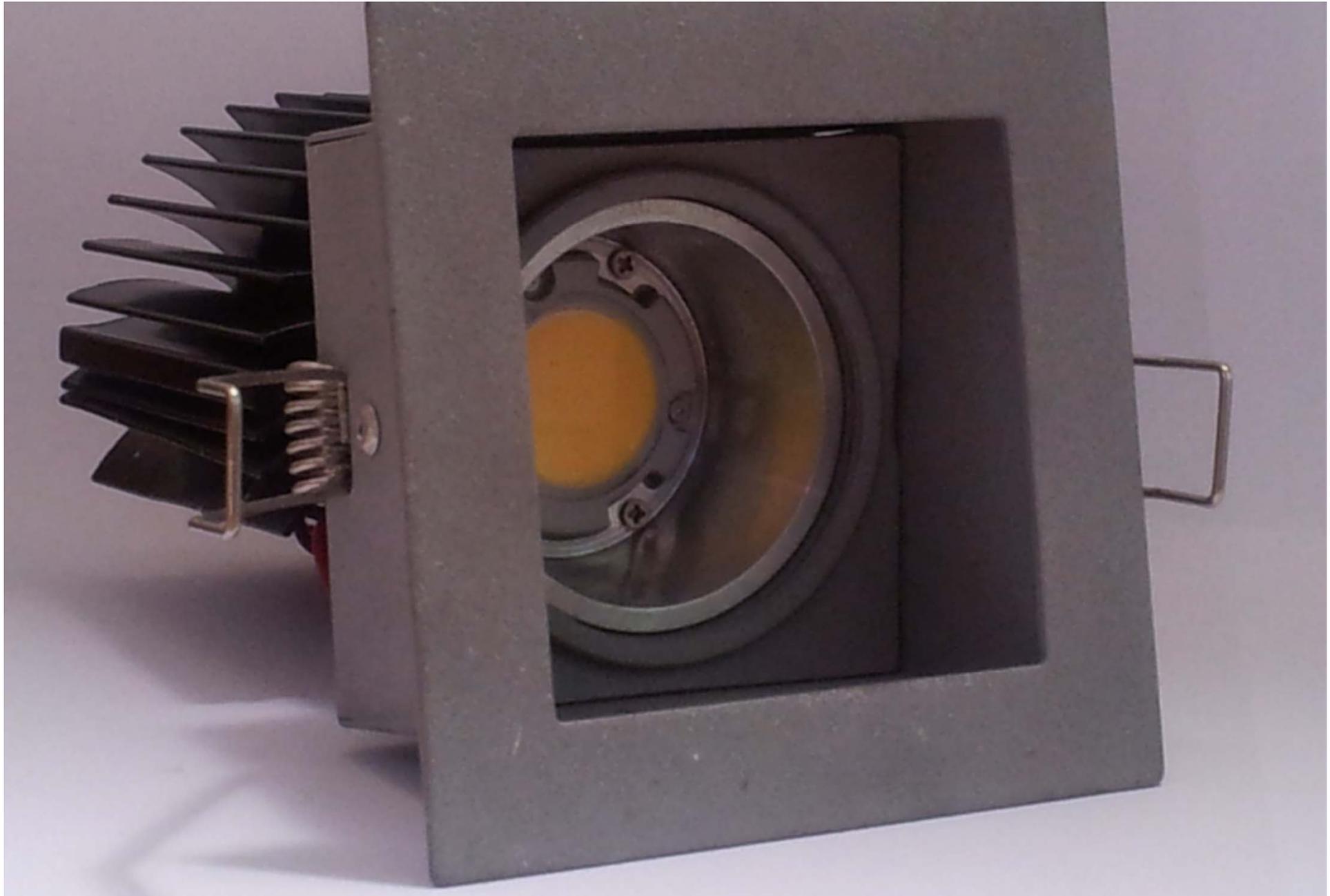
Construction21.eu



Construction21.eu



SERIOUS **MATERIALS**



¡Viva La Revolución!

science

big data

connectivity

measurement

science

big data

connectivity

measurement

meets

9-10 billion people

a powerful tool?

a powerful tool = social media

a powerful tool = social media

why?

benefits

consolidate common interest

benefits

consolidate common interest

bring more to the conversation

benefits

consolidate common interest

bring more to the conversation

democratization of information

challenges

“knowledge hoarding” is difficult

challenges

“knowledge hoarding” is difficult
validation of data

challenges

“knowledge hoarding” is difficult
validation of data

just because you can...

doesn't mean you should

another benefit

mediocrity filter

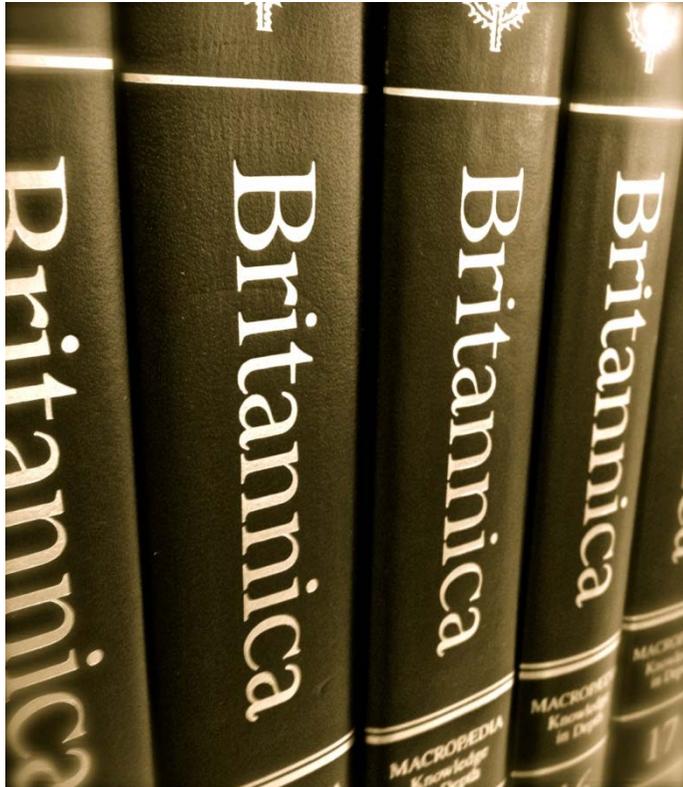
instant meritocracy

another benefit

mediocrity filter



instant meritocracy



VS



WIKIPEDIA
The Free Encyclopedia

wisdom of crowds

the group is smarter than its smartest
individual

wisdom of crowds

a community of your peers

recommending and elevating items of
importance

must bring the debate closer to the
construction community

must bring the debate closer to the
construction community

innovation needs integration

two big challenges

two big challenges

0% to 60%

two big challenges

0% to 60%

ASK!!!!

ASK!!!!

improve communication of the
full project team

socialize the great ideas!



Steve Borncamp

President of Romanian Green Building Council





David Clark
Partner of CUNDALL Engineering



Raising the Ambition of Europe's Energy Performance for Buildings



The need for data and good examples

- Energy data on real building performance
 - To turn theory into reality
 - To focus on what actually works
 - To replicate success
 - To avoid repeating mistakes
- Whole Carbon Footprint
 - embodied carbon
 - transport to and from the building

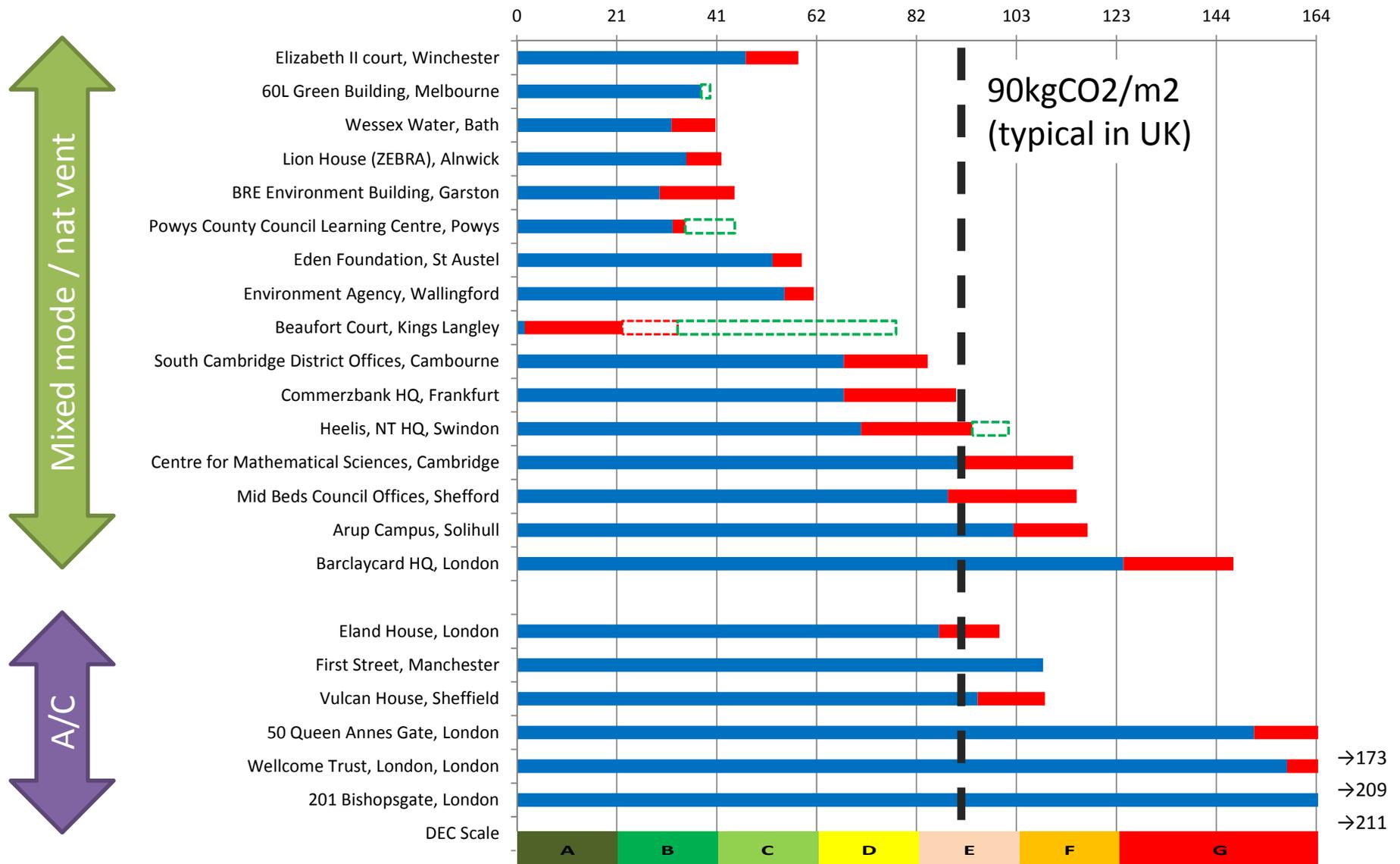


Most case studies are based on
Energy Performance Certificates
(modelled energy)

We really need

Total Energy Consumption
(actual performance)

Real performance of green office buildings

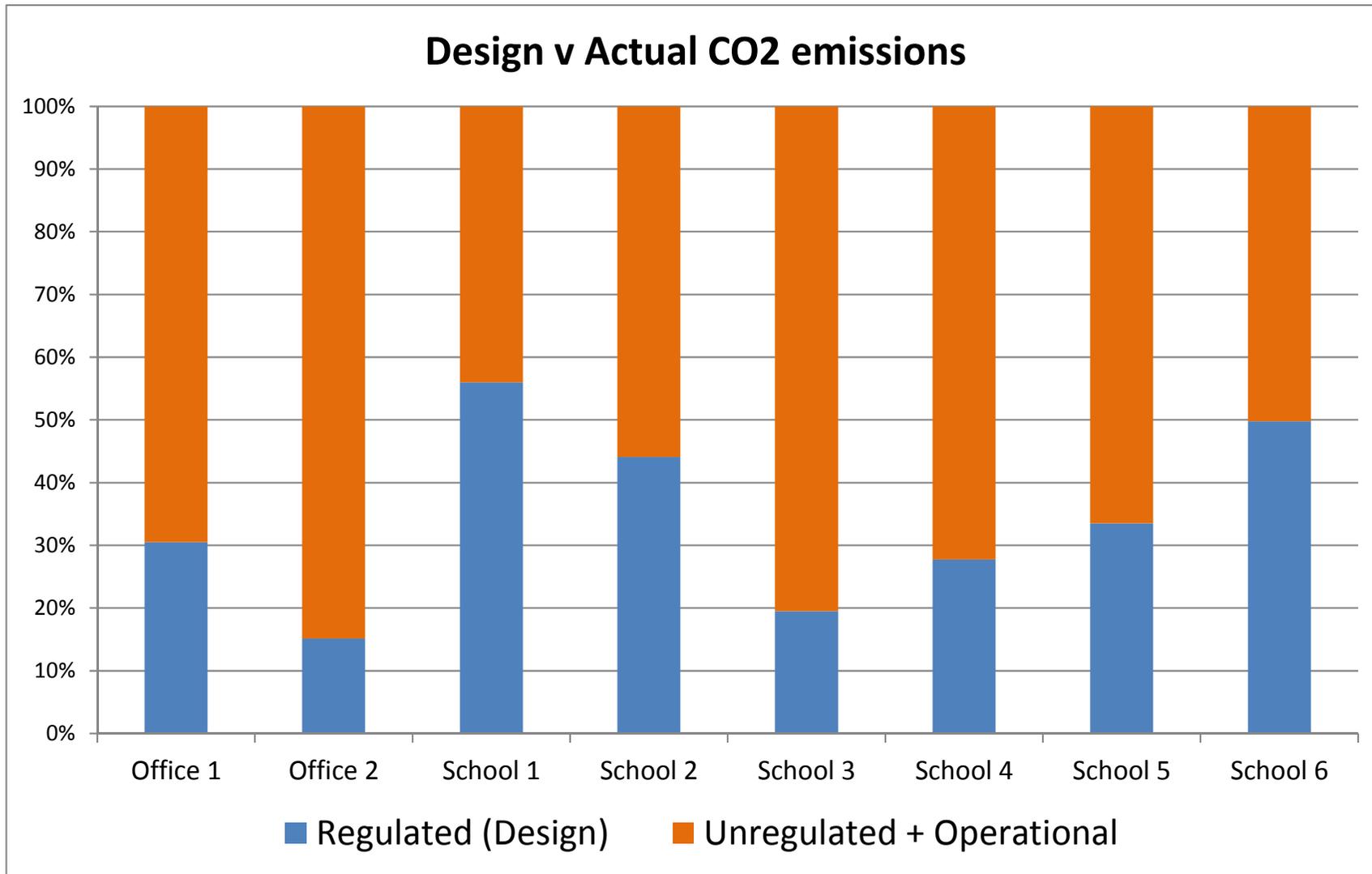


Source: various published case studies

■ Electricity ■ Natural Gas ■ Renewable Heat ■ Renewable Electricity

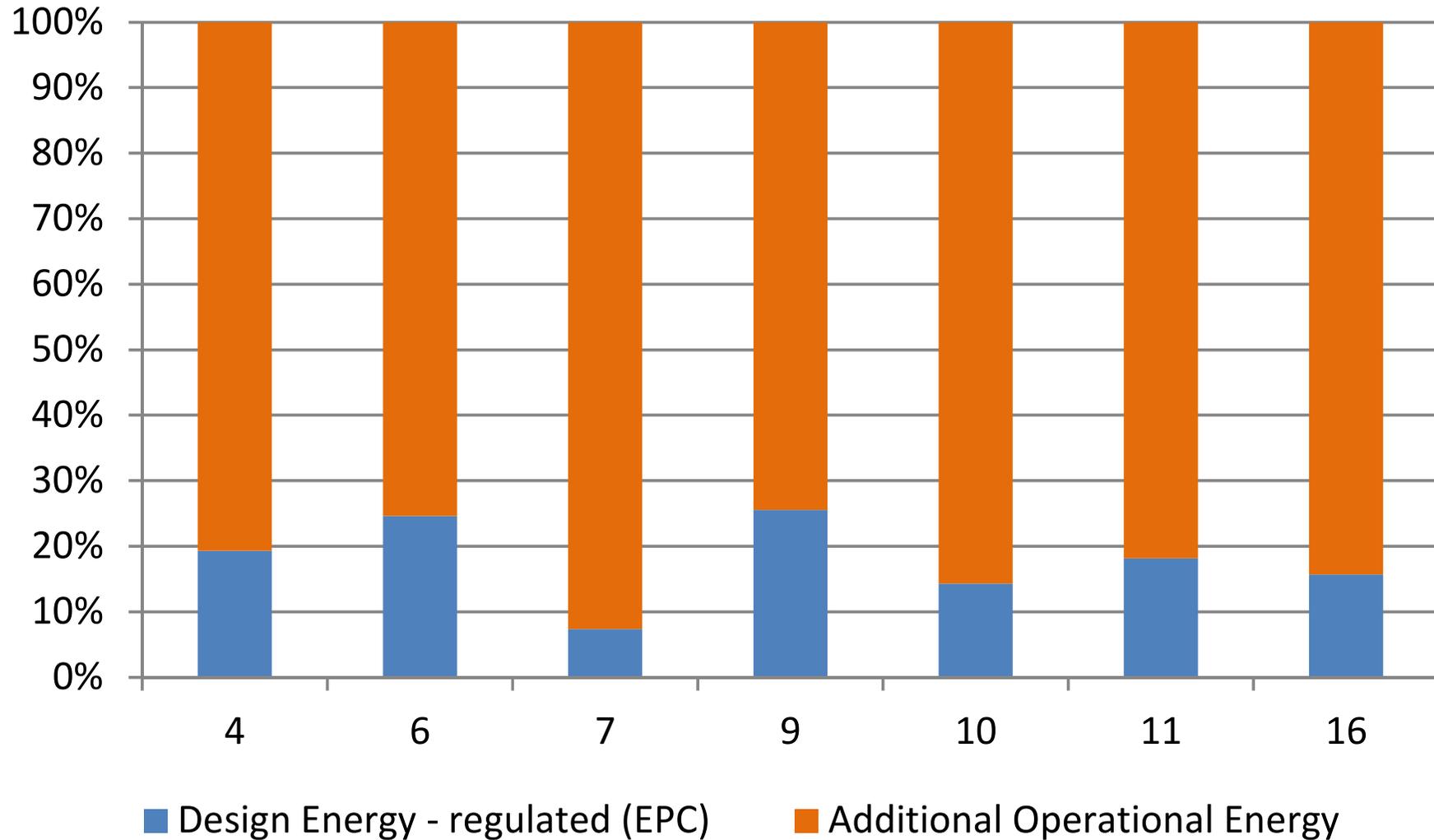
kgCO2e per m2 of GIA

Closing the gap between design & reality



Source: Cundall

Closing the gap between design & reality



Source: www.carbonbuzz.org



Expectations *
Hours of Use
Occupancy Density
Controls & Behaviour
Handover & Maintenance

Special Functions
Plug in Equipment
Other Services

	DHW
Layout & Fabric	Lighting
	Heating & Cooling
	Ventilation

Operational factors

Various factors which influence actual energy consumption that are typically not included in energy modelling

* - expectations includes lighting levels and thermal comfort criteria

Unregulated Energy

Tenant's equipment (e.g. computers, servers)
Lifts, external lights and other services not included in building regs modelling

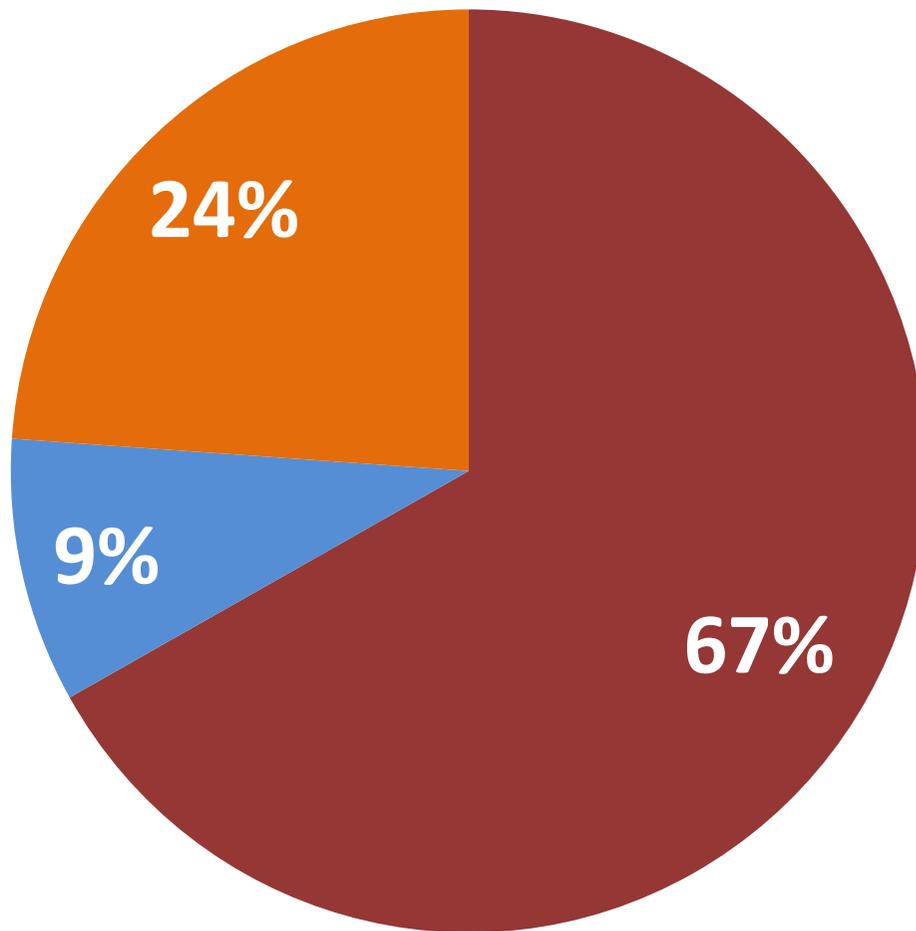
Regulated Energy

Computer energy modelling for Building Regulations, Energy Performance Certificate and BREEAM energy points.

Whole Carbon Footprint - LCA

- Embodied carbon gaining prominence in UK
- Very few buildings have an LCA
- No consistency between factors used
 - Steel = $<1,000\text{kgCO}_2/\text{t}$ OR $> 2,000\text{kgCO}_2/\text{t}$?
- Need to consider Whole Carbon Footprint
 - embodied carbon AND
 - transport to and from the building
 - Location matters!

Carbon footprint – new London office

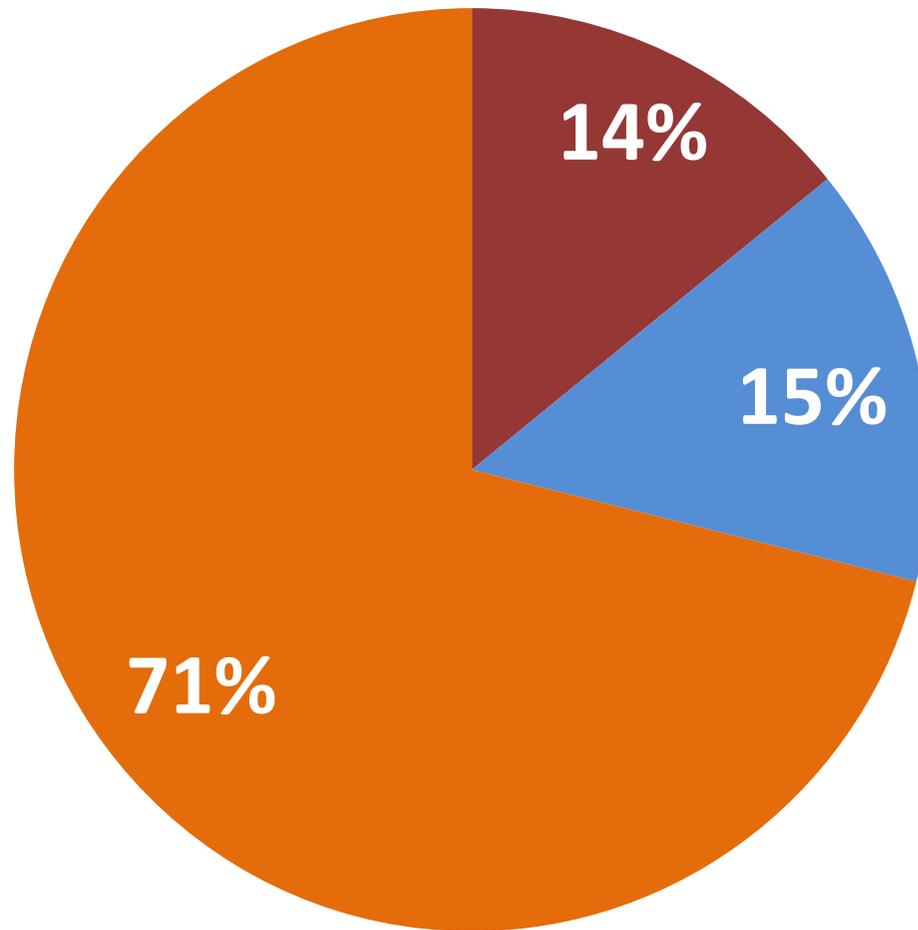


Operating: **150kgCO₂/m²/year**
Embodied (initial): **700kgCO₂/m²**
Embodied (in-use): **550kgCO₂/m²**
Commuting: **800kgCO₂/person/year**
60 year period
No energy supply
decarbonisation included

■ Operating
■ Embodied
■ Transport

Source: Cundall

Carbon footprint – new rural low energy office

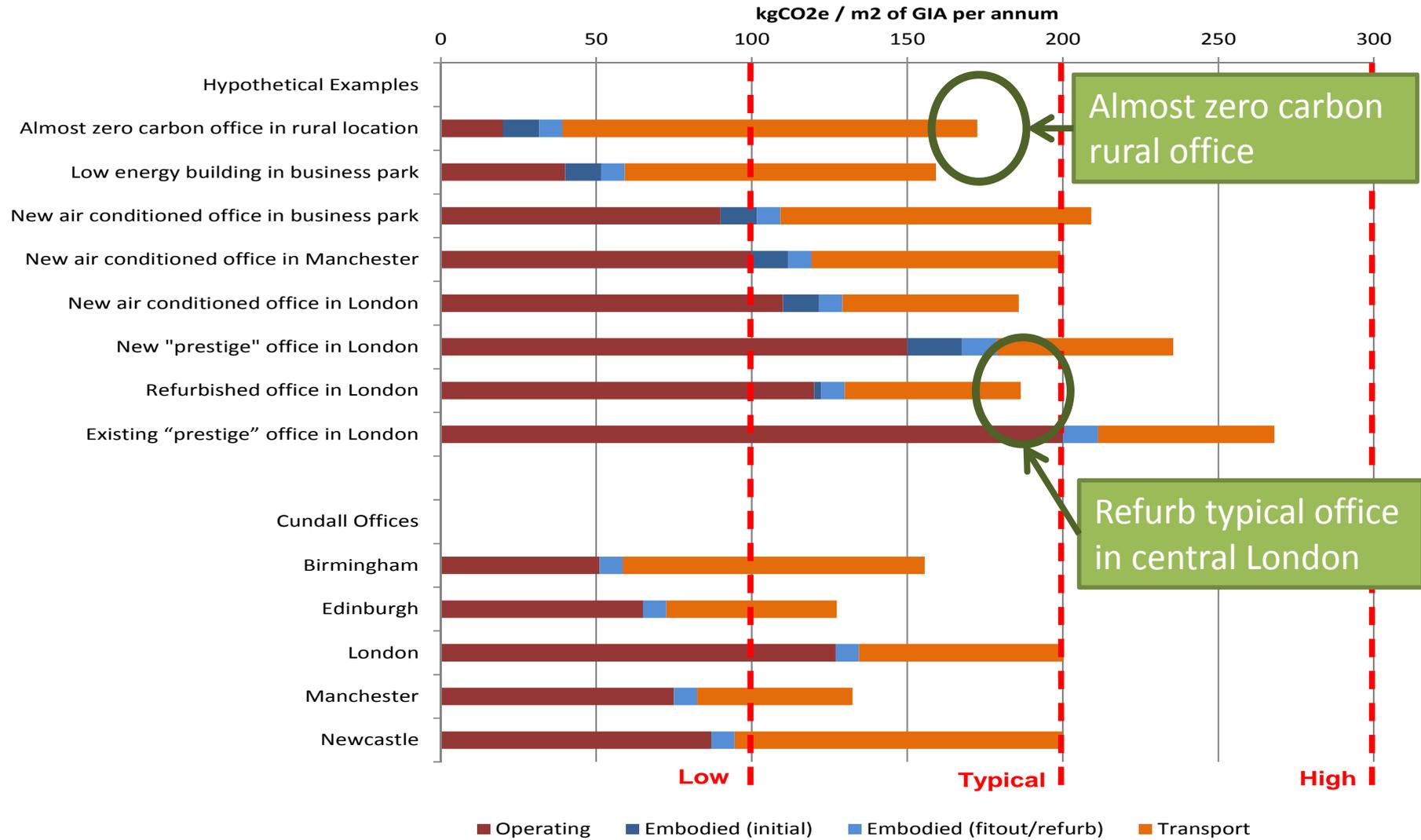


Operating: **20kgCO₂/m²/year**
Embodied (initial): **700kgCO₂/m²**
Embodied (in-use): **550kgCO₂/m²**
Commuting: **1500kgCO₂/person/year**
60 year period
No energy supply
decarbonisation included

■ Operating
■ Embodied
■ Transport

Source: Cundall

Whole Carbon Footprint



Source: Cundall

How c21 could help

- Provide case study data in consistent format
- Encourage operational data rather than design
- Provide whole carbon footprint data
- Share ideas
- Encourage debate

- Part of the jigsaw (gov policy, rating tools, taxes, etc) to reduce the environmental impact of buildings



Véronique Pappé
Project manager of Construction21.eu
at French Institute for Energy Performance in Buildings





The European platform for green building practitioners



<http://www.youtube.com/watch?v=fHQ0KHeX3kY&feature=plcp>

What is Construction21?

- Become the first meeting place for all green building practitioners
- A social network, made by practitioners for practitioners
- Based on the “word to mouth” principle : practitioners share their experiences with their peers
- At a regional, national and international scale

Construction21 founding partners



UNESCO Chair in
Life Cycle and
Climate Change



Unioncamere
Veneto

ANCE

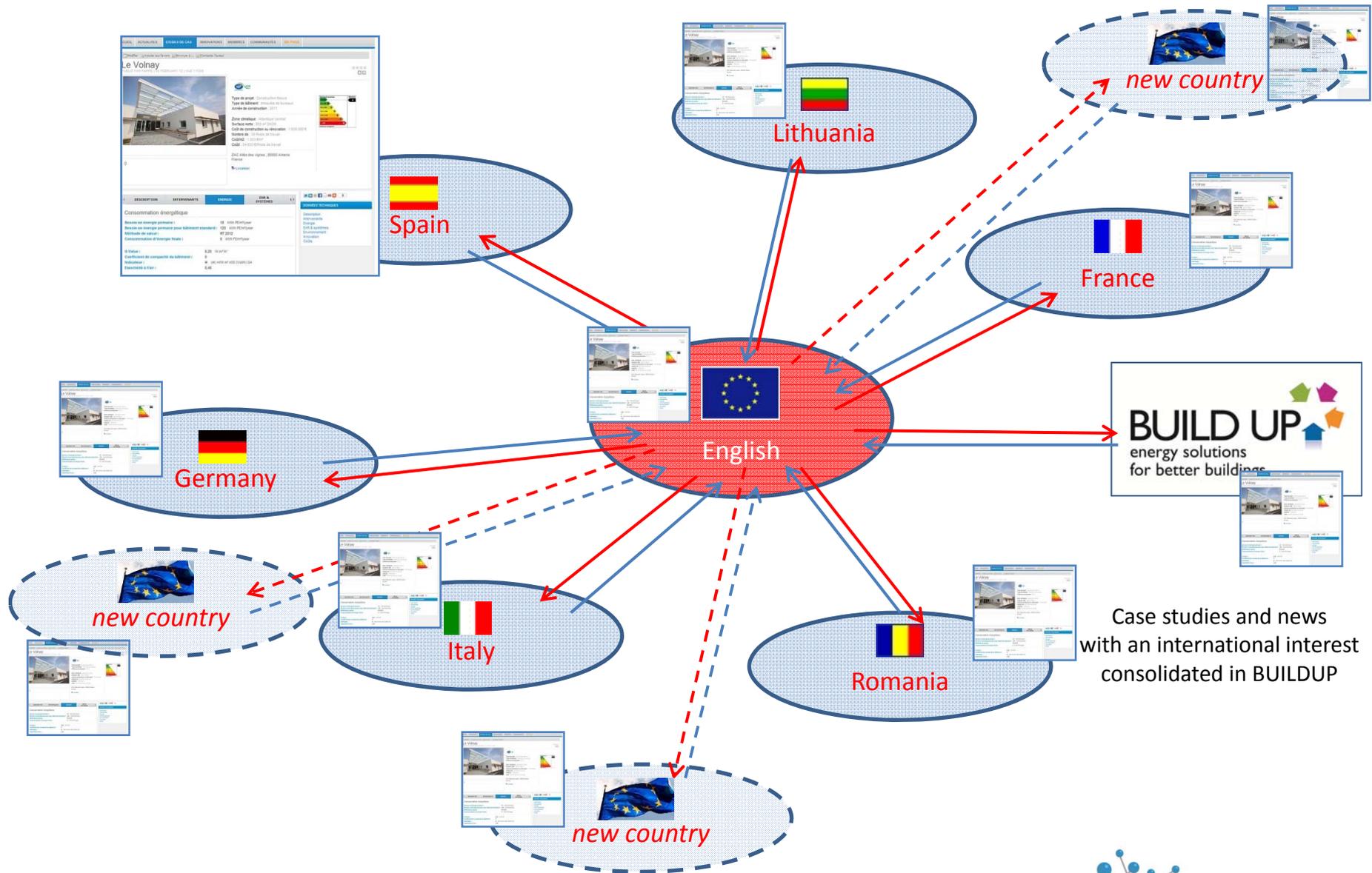
ASSOCIAZIONE NAZIONALE
COSTRUTTORI EDILI



ROMANIA
GREEN
BUILDING
COUNCIL



A multi-lingual platform



In blue : information coming from the national platforms, translated in English
In red: information flowing towards the national platforms, in English

A database of exemplary case studies



ICADE Premier Haus 1

ERSCHENEN 30 APRIL 12, VON ZSÓKA GYÉVAI | DEUTSCHLAND | VIEWED 65 TIMES(S)

Projekttyp: Neubau
Gebäudetyp: Bürogebäude < 23 m
Baujahr: 2010

Klimazone: Alpennordseite
Nettogrundfläche: 26 132 m²
Bau / Renovierungskosten: 42 000 000 €
Funktionelle Einheit: 1 200 Arbeitsplatz
Kosten/m²: 1 607 €/m²
Kosten/Arbeitsplatz: 135 000 €/Arbeitsplatz

Amulfstraße, 80636 München Deutschland

Orten

BESCHREIBUNG | STAKEHOLDER | ENERGIE | ERNEUERBARE SYSTEME

Im Januar 2011 wurde dem Büronebau ICADE Premier Haus 1 auf der BAU in München das DGNB-Zertifikat in Gold verliehen. Der Kubus bildet den ersten Baustein eines Gesamtprojekts aus drei aufeinander bezogenen Gebäuden im modernen Münchener Stadtteil Amulfpark. Die Architekten Ganzer-Hajek-Unterholzner/ Louvleux, München entwarfen ein besonderes Gebäude: Mit maximaler Flexibilität, höchstem Qualitätsstandard und Nutzungskomfort, dabei konsequent der Leitidee der Nachhaltigkeit folgend.

Quelle: <http://www.als-online.de>
 Foto: © Werner Huthmacher

Datenzuverlässigkeit: Auditor

TECHNISCHE MERKE

Beschreibung
 Stakeholder
 Energie
 Erneuerbare Syst.



Centro di infanzia ZIP

PUBBLICATO IL 21 FEBBRAIO 12, DA ANTONIO CORIO | ITALIA | VIEWED 271 TIMES(S)

Progetto: Aggiungo ai favoriti | Invece... | Contatta l'autore | Crea il tuo profilo



CRYSTAL TOWER Business Center BREEAM

PUBLICAT LA DATA DE MAY 12, DE RADUVA IONICA | ROMANIA | VIEWED 271 TIMES(S)

Tipul proiectului: Construcție nouă
Tipul clădirii: Turn de birouri >20m
Anul construcției: 2011

Zone climatice: Continentală
Suprafața utilă: 18 000 m² Arie înlocuită
Costul clădirii: 38 000 000 €
Numărul de unități funcționale: 1 200 Spații de lucru
Costul p.: 1 944 €/m²
Costul/clădire de lucru: 23 167 €/Spațiu de lucru

ROMANIA, BUCHAREST, 48 locuri de muncă la Breeam Live, 10000 Bucuresti Romania

Localitati



ERE PARK

PUBLIÉ LE 20 MARCH 12, PAR ALEXANDRE GARDON | FRANCE | VIEW 279 FOLDS

Type de projet: Construction Neuve
Type de bâtiment: Immeuble de bureau
Année de construction: 2009

Zone climatique: Atlantique nord
Surface nette: 6 000 m² BANC
Code de construction: 9 000 000 €
Nombre d'unités fonctionnelles: 400 Poste de travail
Code/m: 1 500 €/m²
Code/Poste de travail: 22 500 €/Poste de travail

1 avenue de l'horizon, 69650 Villeurbanne d'Acq France

Localiser

ENERGIE | RISQ & SYSTEMES | ENVIRONNEMENT | ENVIRONNEMENT URBAIN

Bâtiment Basse Consommation

Plus de détails sur ce projet: <http://www.erepark.com/>
 Fiabilité des données: Certifié tierce partie

DOMAINE TECHNIQUES

Description
 Interventions
 Energie
 Risq & systèmes
 Environnement
 Environnement urbain

FAVET | ENERGIE | SYSTEME

rai modern, sofisticat și elegant și implementări pentru prima dată în țară. Crystal Tower este un reper nou în București. Cu standarde înalte, spații de birouri eficiente, un accent deosebit asupra normelor de energie, proiectul este combinat perfect de și arhitectură impresionantă.

vești proiect...: <http://www.builgreen.ro>

TECHNICALS FEATURES

Descriere
 Partii Implicate
 Energie
 Sisteme
 Mediu
 Inovatie
 Costuri
 Mediu urban



A focus on performing products and services



Plataforma europea RSS

Construction21.eu
ESPAÑA
La plataforma europea para los profesionales de la construcción so

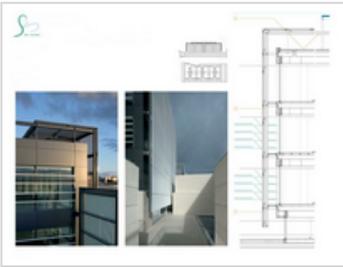
INICIO NOTICIAS CASOS DE ESTUDIO **PRODUCTOS** MIEMBROS COMUNIDADES COLABORADORE

Revestimiento de fachadas con textil

PUBLICADO 31 JAN 2012 À 16:27 GMT, POR CORTÉS DE CASTRO JORGE

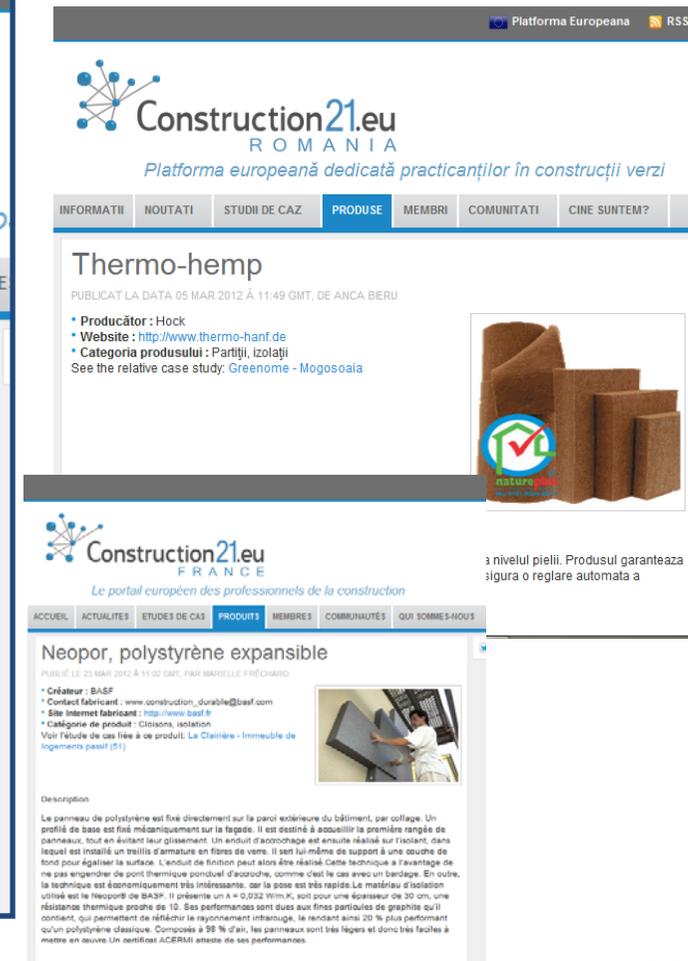
- **Productor** : BAT Spain
- **Contacto** : Calle de San Andrés, 25 28004 | Madrid | España Tfn. (+34) 91 447 74 33 - Fax. (+34) 91 447 72 41
arquitecturatextil@batspain.com fachadatextil@batspain.com
- **Página web** : <http://www.batspain.com/>
- **Categoría del producto** : Carpintería, cubierta, estanqueidad

Ver el Caso de estudio donde se ha usado: [Tripark Las Rozas](#)



Descripción

Las fachadas textiles dotan al edificio de una protección solar que hace reducir su consumo eléctrico en climatización hasta en un 50%, e incrementando el confort visual para el trabajo con ordenadores, permitiendo además la renovación del aspecto de edificios existentes, tematización o incorporación de logos.http://www.batspain.com/fachada_textil.html



Plataforma Europeana RSS

Construction21.eu
ROMANIA
Platforma europeană dedicată practicanților în construcții verzi

INFORMATII NOUATII STUDII DE CAZ **PRODUSE** MEMBRI COMUNITATI CINE SUNTEM?

Thermo-hemp

PUBLICAT LA DATA 05 MAR 2012 À 11:49 GMT, DE ANCA BIERU

- **Producător** : Hock
- **Website** : <http://www.thermo-hanf.de>
- **Categoría produsului** : Partitii, izolații

See the relative case study: [Greenome - Mogosoia](#)



Construction21.eu
FRANCE
Le portail européen des professionnels de la construction

ACCUEIL ACTUALITES ETUDES DE CAS **PRODUITS** MEMBRES COMMUNAUTES QUI SOMMES-NOUS

Neopor, polystyrène expansible

PUBLIÉ LE 23 MAR 2012 À 11:02 GMT, PAR MARIELE FREDERARD

- **Créateur** : BASF
- **Contact fabricant** : www.construction_durable@basf.com
- **Site Internet fabricant** : <http://www.basf.fr>
- **Catégorie de produit** : Cloisons, isolation

Voir l'étude de cas liée à ce produit: [La Clairière - Immeuble de logements passif \(5\)](#)



Description

Le panneau de polystyrène est fixé directement sur la paroi extérieure du bâtiment, par collage. Un profilé de base est fixé mécaniquement sur la façade. Il est destiné à accueillir la première rangée de panneaux, tout en évitant leur glissement. Un ancrage d'accrochage est ensuite réalisé sur l'isolant, dans lequel est installé un treillis d'armature en fibres de verre. Il sert lui-même de support à une couche de fond pour égaliser la surface. L'aspect de finition peut alors être réalisé. Cette technique a l'avantage de ne pas engendrer de pont thermique ponctuel d'accroche, comme c'est le cas avec un bardage. En outre, la technique est économiquement très intéressante, car la pose est très rapide. Le matériau d'isolation utilisé est le Neopor de BASF. Il présente un $\lambda = 0,032 \text{ W/m.K}$, soit pour une épaisseur de 30 cm, une résistance thermique proche de 10. Ses performances sont dues aux fines particules de graphite qu'il contient, qui permettent de réfléchir le rayonnement infrarouge, le rendant ainsi 20 % plus performant qu'un polystyrène classique. Composés à 99 % d'air, les panneaux sont très légers et donc très faciles à mettre en œuvre. Un certificat ACRERM atteste de ses performances.

Thematic communities to exchange with peers

The image displays two screenshots of the Construction21.eu website, illustrating thematic communities for professionals in sustainable construction.

Left Screenshot (French Community):

- Header:** Construction21.eu (BETA) FRANCE. Navigation menu includes ACCUEIL, ACTUALITÉS, ETUDES DE CAS, INNOVATIONS, MEMBRES, COMMUNAUTÉS, MA PAGE, and QUI SOMMES-NOUS.
- Community Title:** "Fondement des ACV pour la construction" (Foundations of LCA for construction).
- Details:**
 - Créé le 25/06/2010
 - Propriétaire: Cédric BOREL
 - Membres de la communauté: 43
 - Communautés locales: 0
 - Adhésion: communauté ouverte
- Thèmes:** Site web; Intérêts: ACV
- Text:** "Groupe d'Excellence sur la prise en compte des ACV dans le bâtiment. Les normes et méthodes encadrant les ACV dans le bâtiment sont nombreuses, la communauté vise à reenser et qualifier les outils et méthodes de l'ACV pour le bâtiment..."
- Documents de la communauté:**
 - Cahier de charges préliminaire pour LEED 2012 pour Building Design and Construction (Agustin Lucera le 06/03/2012)
 - ANALYSE DU CYCLE DE VIE A L'ECHELLE D'UN QUARTIER: un outil d'aide à la décision? (Cédric BOREL le 14/02/2012)
 - Guide des matériaux éco-performants pour la région PACA (Véronique Pape le 17/11/2011)
 - Les choix constructifs à la lumière de l'ACV-Présentation IFPEB (Siham GHALEM-TANI le 04/10/2011)
- Pages de la communauté:**
 - LEED 2012 se met à l'ACV (Agustin Lucera le 06/03/2012)
 - Commentaires sur compatibilité BRE Environmental Profiles et la norme EN 15804 (Agustin Lucera le 06/03/2012)
 - Rediffusion de la conférence "Analyse de cycle de vie et bâtiment" CSTB-Bouygues Construction du 12/10/11 (Véronique Pape le 14/11/2011)
 - Green Guru William McDonough Must Change, Demand His Biggest Fans (Laure Rondeau Desroches le 23/06/2011)
- Evénements à venir:** Journée 2012 LCA Conference
- Dernières discussions:** ACV en phase ESQUISSE: utopie ou réalité?

Right Screenshot (Spanish Community):

- Header:** Construction21.eu ESPAÑA. Slogan: "La plataforma europea para los profesionales de la construcción sostenible".
- Community Title:** "Análisis del Ciclo de Vida de productos y edificios" (Life Cycle Analysis of products and buildings).
- Details:**
 - Creada el 25/06/2010
 - Administrador: Cristina Gasula
 - Miembros: 27
 - Comunidades locales: 1
 - Comunidad abierta
- Temática:** Análisis de ciclo de vida
- Text:** "A menudo, determinadas soluciones constructivas se presentan como 'ecológicas' porque mejoran aspectos ambientales muy concretos en determinadas etapas del ciclo de vida de los edificios..."
- Últimos miembros:** Grid of member avatars.
- Páginas de la comunidad:**
 - Análisis Social de Ciclo de Vida (Cristina Gasula el 07/05/2012)
 - Introducción al Análisis de Ciclo de Vida (Cristina Gasula el 08/05/2012)
 - Herramientas software para el ACV
- Próximos eventos:**
 - International Symposium on Life Cycle Assessment and Construction Conference Internacional sobre Análisis de Ciclo de Vida y construcción (10 Jul 2012 - 12 Jul 2012)

News

The screenshot displays the Construction21.eu website interface. The top navigation bar includes 'HOME', 'NEWS', 'CASE STUDIES', 'EVENTS', 'MEMBERS', 'COMMUNITIES', and 'WHO WE ARE'. The main content area is divided into two columns. The left column features a list of news articles with titles such as 'The Energy Efficiency Directive: An agreement that improves the climate and leads to employment in the EU', 'Conference: how social networks will revolutionize the industry of Building', 'France has positioned itself over the Energetic Efficiency Directive', 'Certivea launches HQE has the international non-residential building', 'Energy efficiency - Doing more with less', 'Life Cycle Analysis in Buildings', and 'Property tax reduction for green building owners in Cluj-Napoca, Romania'. The right column features a featured article titled 'Mutnovsky Geoterminės elektrinės projektas' (Mutnovsky Geothermal power plant project) with a large image of the facility. Below the image, there is a brief description in Lithuanian. The right sidebar contains a search bar, a 'Pateikiama kalba' (Available language) dropdown, and a list of categories including 'NALAIŠOS' and 'NALIENIS'. The footer of the page features the Construction21.eu logo and name.



Anna Braune

**Head of PE INTERNATIONAL's building &
construction team**



C 21 Communities

5 community(s) set(s)



Energy Performance Contracting in buildings - The Essential

Energy Performance Contracting - Essential Resources
Open community | 12Members

Join



Life Cycle Assessment of products and buildings

Open community to professionals interested in the application of Life Cycle Thinking into the building sector.
Open community | 13Members

Join



SEEMPubS

The community about SEEMPubS, a seventh frame work's project regarding energy saving in existing and historical building by ICT-based services.
Open community | 4Members

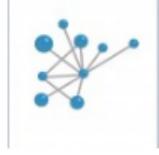
Join



EeBGuide Expert Group

Expert Group community for the EeBGuide Project
Private community | 1Members

Request a membership



Construction21 project team community

Construction21 project team community
Private community | 27Members

Request a membership

Join the green revolution!
Join Construction21.eu

■ Get informed

Access information about your activity easily.
Interact with European green building experts.
Adopt innovative solutions in construction and refurbishment.

■ Develop yourself

Promote your achievements in your country and the whole of Europe.
Demonstrate your expertise within thematic communities.
Develop your company's market share of the green economy.



Construction21.eu

The European platform
for green building practitioners

Benefits of C 21 Communities

Define topics that you find worth discussing with others

The screenshot shows a web interface for a community. At the top, there are navigation tabs: NEWS, CASE STUDIES, PRODUCTS, MEMBERS, COMMUNITIES (selected), and WHO WE ARE. The main content area is titled 'Cycle Assessment of products and buildings'. It includes a 'Community details' section with links for 'Community page', 'Community forum', 'Community documents', and 'Community calendar'. Below this is a 'LATEST MEMBERS' section with a grid of user avatars and a 'Leave' button. The main text discusses 'Life cycle analysis' and 'Life cycle assessment'. At the bottom, there are two sections: 'COMMUNITY DOCUMENTS' with a document titled 'Life Cycle Analysis for Building - A comprehensive guide' and 'UPCOMING EVENTS' with two events: 'Specifications and Life-Cycle Analysis in Buildings Breakfast - Conference - LCA and Specifications' and 'International Symposium on Life Cycle Assessment and Construction International Conference on Life Cycle Assessment and construction'.

Create forum, calendar, documents easy on a mouseclick

Get connected with experts

Exchange documents

Exchange events news

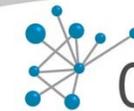
Join the green revolution! Join Construction21.eu

■ Get informed

Access information about your activity easily.
Interact with European green building experts.
Adopt innovative solutions in construction and refurbishment.

■ Develop yourself

Promote your achievements in your country and the whole of Europe.
Demonstrate your expertise within thematic communities.
Develop your company's market share of the green economy.



Construction21.eu

The European platform
for green building practitioners

Benefits of C 21 Communities

Start and monitor discussions

Subiecte de discutat

Forumul comunității > Din experiența dumneavoastră, se solicită Certificatul de Performanță Energetică la recepția clădirilor noi?

DIN EXPERIENȚA DUMNEAVOASTRĂ, SE SOLICITĂ CERTIFICATUL DE PERFORMANȚĂ ENERGETICĂ LA RECEPȚIA CLĂDIRILOR



Anca Bieru Conform Legii 372/2005, începând din Ianuarie 2007, certificatul de performanță energetică este obligatoriu pentru clădirile noi și se verifică la recepția clădirii. Care este situația în practică?

NOTA: pentru a răspunde, trebuie să vă logați pe Construction 21 și să vă înregistrați în această comunitate

Use C21 Communities for your own project work – benefit from secure non-profit platform

Join the green revolution!
Join Construction21.eu

■ Get informed

Access information about your activity easily.
Interact with European green building experts.
Adopt innovative solutions in construction and refurbishment.

■ Develop yourself

Promote your achievements in your country and the whole of Europe.
Demonstrate your expertise within thematic communities.
Develop your company's market share of the green economy.



Construction21.eu

The European platform
for green building practitioners



Roser Gasol

Communication Manager at the UNESCO
Chair in Life Cycle and Climate Change

Gintaras Staukis

Assoc. Prof. Vilnius Gediminas Technical
University, Lithuania



What is a case study?

- Exceptional examples of both new and refurbished buildings
- Consistent and comprehensive data
- Outlining outstanding eco-innovations



DESCRIPTION	STAKEHOLDERS	ENERGY	RENEWABLES & SYSTEMS
Energy consumption			
Breakdown for energy consumption : Heating: 29.97 kWh/sq.m year ; Hot water: 10.03 kWh/sq.m year ; A/C: 10.48 kWh/sq.m year ; Mechanical Ventilation: 3.23 kWh/sq.m year ; Lighting: 8.9 kWh/sq.m year			
Primary energy need : 175,28 kWh PE/m ² /an			
Primary energy need for standard building : 480,00 kWh PE/m ² /an			
Calculation method : Primary energy needs			
Final Energy : 62,60 kWh FE/m ² /an			
Envelope performance			
More information : Exterior Wall type 1 Thermal Resistance: 4.63 sq.m K/W ; Exterior Wall type 2 Thermal Resistance: 3.43 sq.m K/W ; Exterior Wall type 3 Thermal Resistance: 2.63 sq.m K/W ; Exterior Wall type 4 Thermal Resistance: 5.36 sq.m K/W ; Ground Plane Resistance: 5.51 sq.m K/W ; Frame Resistance: 5.52 sq.m K/W. An area of the roof is a Green Roof.			
U-Value : 0,22 W.m ² .K ⁻¹			
Building Compactness Coefficient : 0,95			
Indicator : n50 (I4) m ² H.m ² n50 (Vol/H) Q4			

Add to Favorites Send to ... Contact the author Create PDF

Greenome - Mogosoia , Romania

PUBLISHED ON 05 MARCH 12, BY ANCA BIERU | ROMANIA | VIEWED 328 TIMES

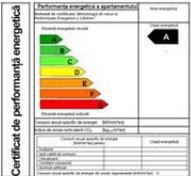


Project type : New Construction
Building Type : Collective housing < 50m
Construction Year : 2011

Climate zone : Continental
Net Floor Area : 125 m²
Construction/refurbishment cost : 130 000 €
Number of Dwelling : 4 Dwelling
Cost/m² : 1 040 €/m²
Cost/Dwelling : 32 500 €/Dwelling

Str. Ariei Nr.2E , 77135 Com. Mogosoia , Jud. Ilfov
România

Locate



DESCRIPTION	STAKEHOLDERS	ENERGY	RENEWABLES & SYSTEMS
			

0

PDF

What is a case study: 8 categories

The screenshot displays the Construction21.eu website interface. The top navigation bar includes 'INICIO', 'NOTICIAS', 'CASOS DE ESTUDIO' (highlighted with a red circle), 'INNOVACIONES', 'MIEMBROS', and 'COMUNIDADES'. The main content area features two case study entries:

- Hemicielo Solar Edificio bioclimático de 92 VPPA en Móstoles**
 - Published: 01 FEBRUARY 12 | VIEWED 50 TIME
 - Image: A large, modern residential building with a curved facade.
 - Details:
 - Tipo de proyecto: Nueva construcción
 - Tipo de edificio: Edificios colectivos <50m
 - Año de la construcción: 2009
 - Zona climática: Sud Mediterrani
 - Superficie útil: 13 243 m² Spanish Useful area
 - Coste de la construcción: 9 259 930 €
 - Número de unidades funcionales: 92 Pisos
 - Coste/m²: 699 €/m²
 - Coste/Pisos: 100 651 €/Pisos
 - Energy Rating: A (indicated by a green arrow on a scale from A to G)
 - Location: Plaza del Sol 1-3, 28938 Móstoles (Madrid) España
 - Localizar button

- Olympia Tower Romania**
- Published: 07 MAY 12, BY LUCIAN OPRIS | ROMANIA | VIEWED 160 TIMES
- Image: A modern office tower building.
- Details:
 - Project type: New Construction
 - Building Type: High office tower > 25m
 - Construction Year: 2009
 - Climate zone: Continental
 - Nat Floor Area: 9 500 m²
 - Construction/fulfillment cost: 19 800 000 €
 - Number of Work station: 700 Work station
 - Cost/m²: 2 063 €/m²
 - Cost/Work station: 28 296 €/Work station
- Location: Bulevardul Decebal 25-29, 030964 Bucuresti Romania
- Localize button

Below the case studies, there is a tabbed interface with 'DESCRIPCIÓN' selected. The description for the Hemicielo Solar project reads: 'El proyecto resuelve un programa de un edificio para albergar 92 viviendas de alquiler para jóvenes, una dotación de 1000 m2 edificables para locales comerciales y una dotación de aparcamiento como mínimo igual a la exigida por la normativa vigente. Se buscaba una propuesta ejemplar en cuanto a criterios de alta eficiencia energética y por tanto menor consumo de no renovables, teniendo además el proyecto que proponer espacios de alto valor de relación social capaz de integrar distintos grupos de origen cultural, social y étnico. Igualmente se quería aprovechar esta pieza para cualificar un espacio de reciente creación en el ensanche de Móstoles. El edificio es un bloque unitario, orientado al Sur y dotado de una ligera curvatura que acentúa el aprovechamiento energético de la captación'.

On the right side, there is a sidebar with 'CARACTERÍSTICAS TÉCNICAS' and a list of categories: Descripción, Actores, Energía, Renovables y sistemas, Comportamiento ambiental, Innovación, Costes, and Entorno urbano.

At the bottom right, the Construction21.eu logo is visible.

What is a case study: 8 categories

The image shows a screenshot of a project information system with several overlapping windows. The main window has a navigation bar with tabs: DESCRIPTION (circled in red), STAKEHOLDERS, ENERGY, and RENEWABLES & SYSTEMS. The DESCRIPTION tab is active, displaying text about a building project. A smaller window is open over the RENEWABLES & SYSTEMS tab, showing sub-tabs: ENVIRONMENT (circled in red), INNOVATION, and COSTS. The ENVIRONMENT sub-tab is active, showing GHG emissions and Life Cycle Analysis. Another window is open over the STAKEHOLDERS tab, showing a list of roles and companies. A fourth window is open over the RENEWABLES & SYSTEMS tab, showing sub-tabs: RENEWABLES & SYSTEMS, ENVIRONMENT, INNOVATION, and COSTS. The RENEWABLES & SYSTEMS sub-tab is active, showing a list of systems. The bottom right corner features the Construction21.eu logo.

DESCRIPTION

The project consists of a building with a unitary image as a whole. It block B and block C) in order to adapt itself to the slope of the terrain leveling operations, which shows a stepwise skyline. The three block courtyards on its four sides. The access to the building is through full and empty spaces, in alternate positions, boosting the presence improving the thermal inertia of the building.

Functionally, each of the blocks is shaped with two sections of office access. These cores contain elevators and freight elevators, building in the center and a fire escape. These cores are likewise divided in intermediate positions.

The design is exhaustive in the search for materials to control solar transparency, adopting constructive solutions with stressed fabric.

See more details about this project : <http://www.arup.com/Proj>

Data reliability : 3rd part certified

RENEWABLES & SYSTEMS

ENVIRONMENT

GHG emissions

GHG in use : 76,00 KgCO₂/m²/year

Methodology used : The program used to elaborate de testing was eQuest™ 3.2 that uses the DOE-2.2 engine, making a simulation by comparing the building subject to analysis to another one considered as a "reference building". Using this simulation...

Building lifetime : 50

GHG Cradle to Grave : 3

Life Cycle Analysis

The resultant impact avoided respect to a reference building of 45% respect to a building with the same characteristics in terms of health, welfare and the final price.

Water & Indoor air quality

Consumption from water network :

Consumption of grey water :

Consumption of harvested rainwater :

Indoor Air quality : In order to guarantee comfort as includes a VRV system (variable cooling volume system) with mechanical ventilation system. The ventilation system is located outside. There are ducts which take the supply air and keep it in comfort levels. Additionally, there is a secondary room and drive it to the VRV units, where it is processed.

STAKEHOLDERS

Developer

- Hines
- Sor Ángela de la Cruz, 2º - 2º C Edificio Cuzco III Madrid 28020 España
- Website : <https://hines.com>

Construction Manager

- Arguigremio. Florentino Perez
- C/La Poveda 12 28028 Madrid, España"

Construction Manager

- Acciona S.A.
- Avda. de Europa 18 Parque Empresarial La Moraleja 28108 Alcobendas, Madrid, España"
- Website : <http://www.acciona.com/>

Construction company

- Aguilera Ingenieros S.A.
- Guzmán el Bueno 133 - Edificio Skandia 28003 Madrid, España

Construction company

- 3i Ingeniería
- C/ Velazquez, 46 - 3º 28001 Madrid España
- Website : <http://www.3i-ingenieria.com>

Construction company

- Ove Arup & Partners
- c/ Alcalá 54 28014 Madrid, España
- Website : <http://www.arup.com>

Designer

RENEWABLES & SYSTEMS

Systems

Heating system :

- Heat pump

Cooling system :

- Reversible heat pump

Renewable systems :

- Solar Thermal

Renewable energy production : 2,53 %

INNOVATION

Facade coating with textile

- Producer : BAT Spain
- Contact : Calle de San Andrés, 25 28004 | Madrid | España Tfn. (+34) 91 472 41 arquitecturatextil@batspain.com fachadatextil@batspain.com
- Website : <http://www.batspain.com/>
- Product category: Structural work / Carpentry, cover, tightness

Description :

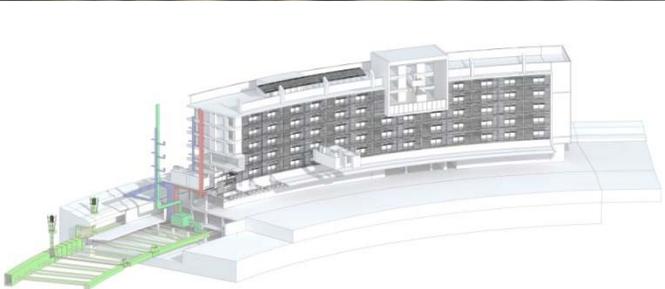
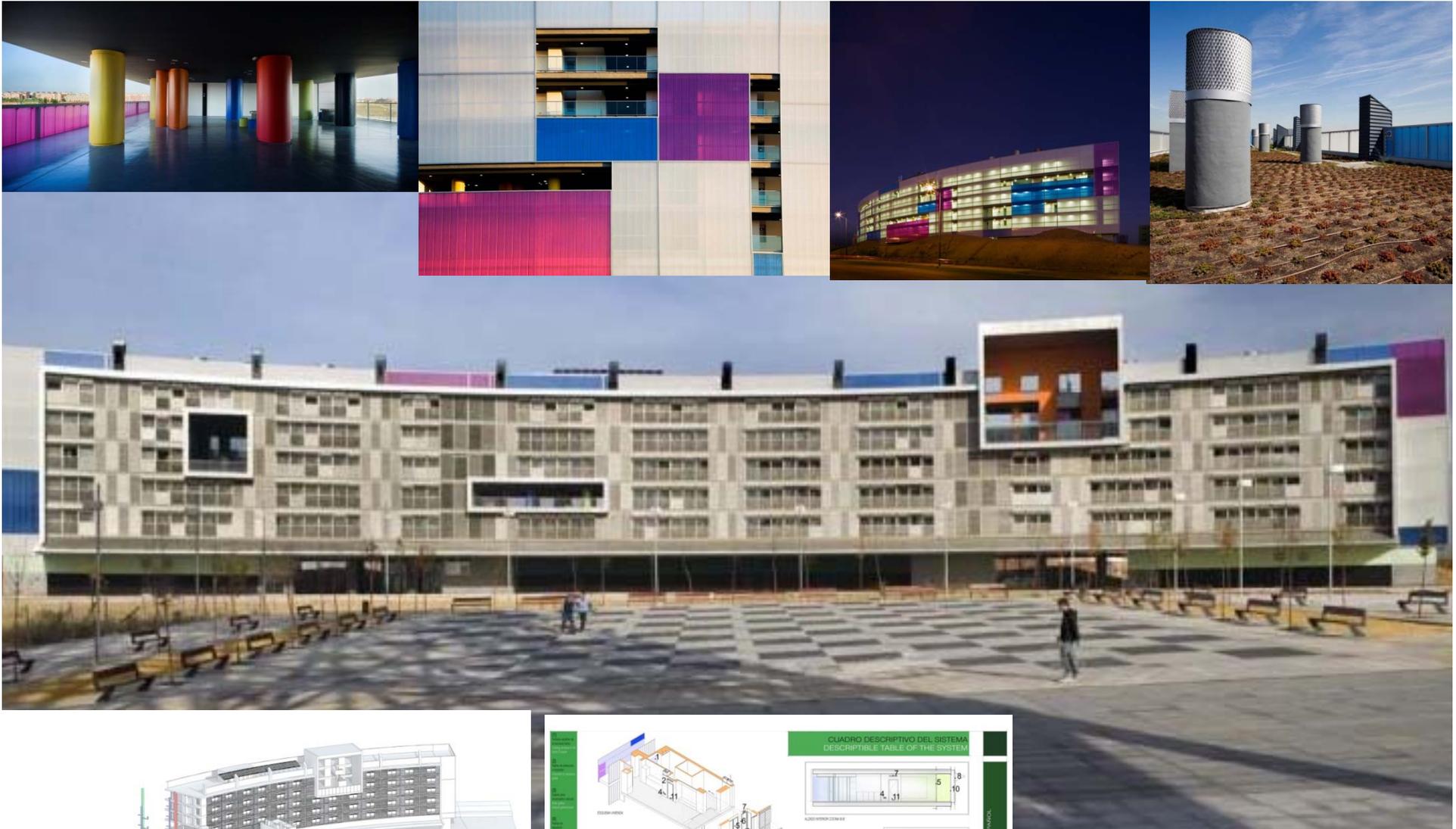
Facades with textile provide the building with solar protection which makes the power consumption on cooling systems to decrease down to 50%. They also improve the visual comfort on workstations with computers, allowing the renovation of the appearance of existing buildings, creating themes or logos.http://www.batspain.com/fachada_textil.html

Construction21.eu

Example of a case study I



Example of a case study II



Example of a case study III



Examples in 6 European countries



France



Spain



Italy



Romania



Germany



Lithuania

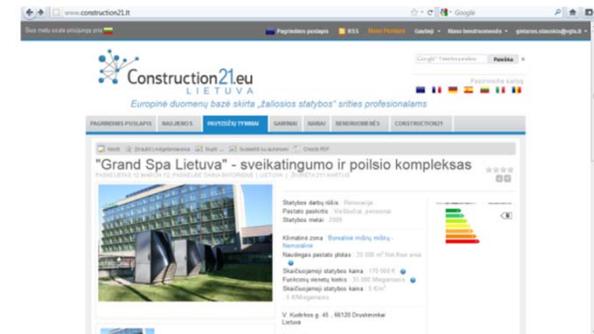
Validation process

- Case study supplier registered → WRITE
- Moderator → REVIEW
- Case study supplier registered → TRANSLATE (optional)
- Administrator C21 → PUBLISH



Your case studies in Construction21 : the benefit

- Share information and best practices
- Improve transparency in the European market: replication
- European benchmark
- Promote your products and increase your visibility
- Demonstrate your expertise in Europe
- Influence local and national policy makers
- Pool of innovation ideas and contacts



Case studies presented at international events



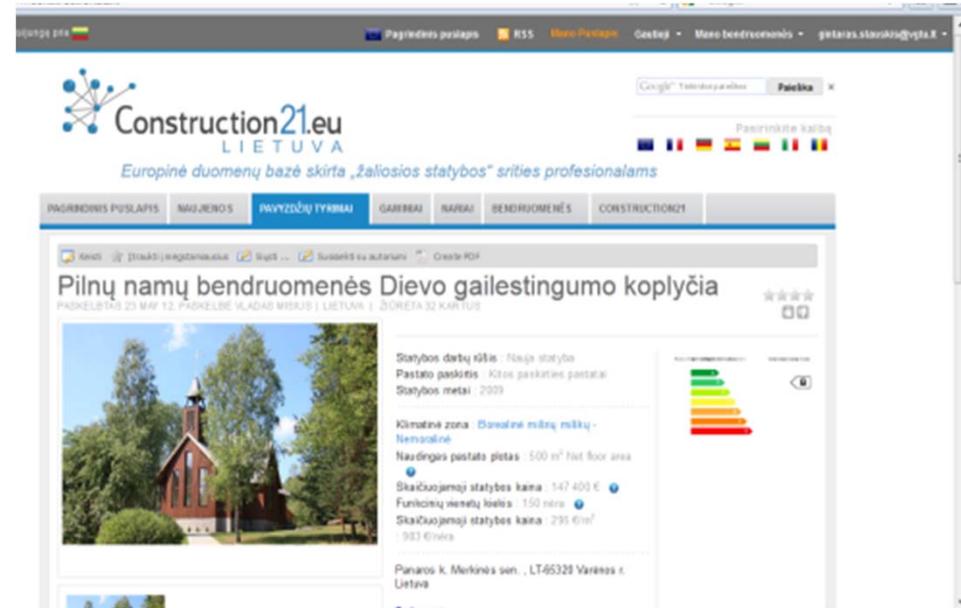
100 case studies already in the database

- **May 2013: 500 case studies:**

- France: 85
- Spain: 85
- Germany: 85
- Romania: 85
- Lithuania: 65

- **June 2012: 93 Case Studies**

- France: 37 CS
- Spain: 8 CS
- Germany: 7 CS
- Romania: 17 CS
- Lithuania: 13 CS
- Italy : 11 CS





Véronique Pappé
Project manager of Construction21.eu
at French Institute for Energy Performance in Buildings



Register on Construction21.eu

- Demonstrate your expertise.
- Develop your professional network.
- Improve your reputation
- Promote your services and achievements



Be a pioneer
Join Construction21 now!

June 2012 : opening to new countries

- Selection of new partners: national organization(s) involved in green building
- Integration process
 - Creation of a new platform
 - Training to website management
 - Assistance to mobilize national stakeholders



**Amplify your actions by developing your
Construction21 platform!**

To know more about [Construction21.eu](https://www.construction21.eu)

- Questions?

To contact Construction21.eu

- Consense : common booth with World Green Building Council

HALL 2 - stand 2E12

- 2nd conference : “How social media will revolutionise the building industry towards sustainability?”

Interface conference Room C4.1.1 - Wednesday 20th of June – 9.00

- Contact us! Project manager : Véronique Pappe

construction21@construction21.fr / +336 69 14 02 33