

<u>REPORT</u>

Contact: Departamento de Comunicación Comunicados de Prensa, SpainGBC® +34 911 890 555 ccve@spaingbc.org

LEED OUTSIDE USA - 2015

A European Perspective of LEED.

Madrid, 20th January, 2016 – The following analysis has been made considering all buildings abroad from: Army, Navy, Air Force, American Military Bases, Department of State (Embassies and related buildings) and American schools,... as located inside the USA (this has strong incidence in countries like Germany, UK, Turkey, The Middle East and South Korea, to name a few (i.e.: LEED buildings at USAG Heidelberg Army Base in Germany, are counted as USA ones).

In this Report we will provide an overview for:

- Global Growth: Total USA and Non-USA
- Non-USA Buildings growth as % of Total buildings
- Non-USA Countries ranking Registered
- Non-USA Countries ranking Certified
- Regions:
 - o European LEED-Certified, ranking
 - o Iberoamerican LEED-Certified, ranking
- Comments

Departamento Comunicación

Spain Green Building Council®
Consejo Construcción Verde España®
Avenida de Europa, 14
P.E. La Moraleja
Alcobendas
28108 – Madrid, Spain

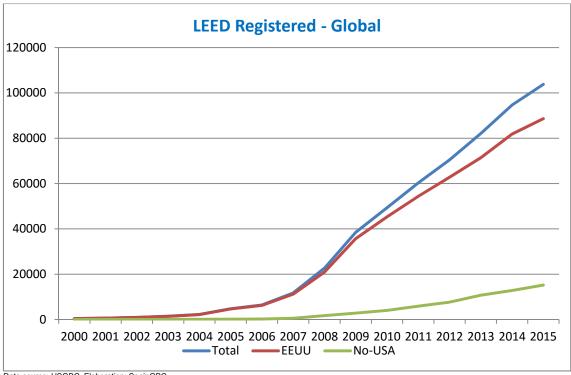




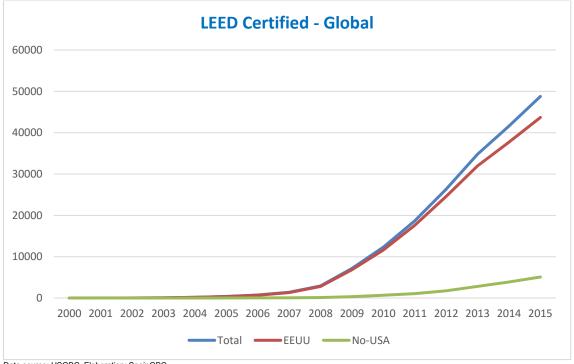


OLEED





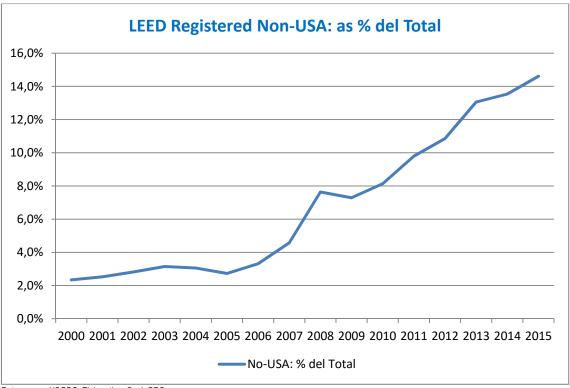
Data source: USGBC. Elaboration: SpainGBC.



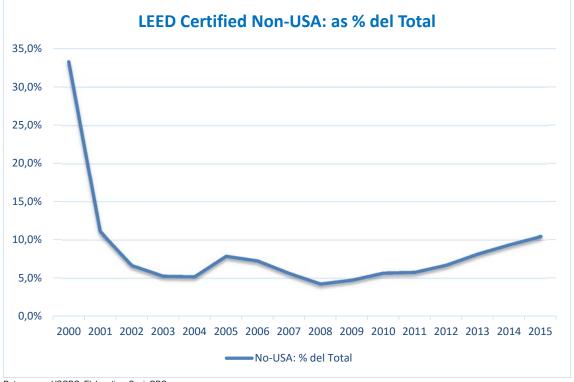
Data source: USGBC. Elaboration: SpainGBC.

At the global level the buildings Registered outside USA does not reach the 15% (14,6%) and the Certified ones does not reach the 11% (10,65%). As we know the growth had been exponential until the Grand Recession in 2008. After that the growth in the number of registered buildings has been linear with the declining rates of growth in the USA compensated by the growth of buildings outside USA. At the Certified building level the crisis produced a strong decline in USA growth rates in 2009, which started to recover in 2011 and with stronger growth rates in 2013-2014. That growth has coincided with sustained growth rates on buildings abroad. We forecast strong growth rates for the coming years either in both the USA and abroad.





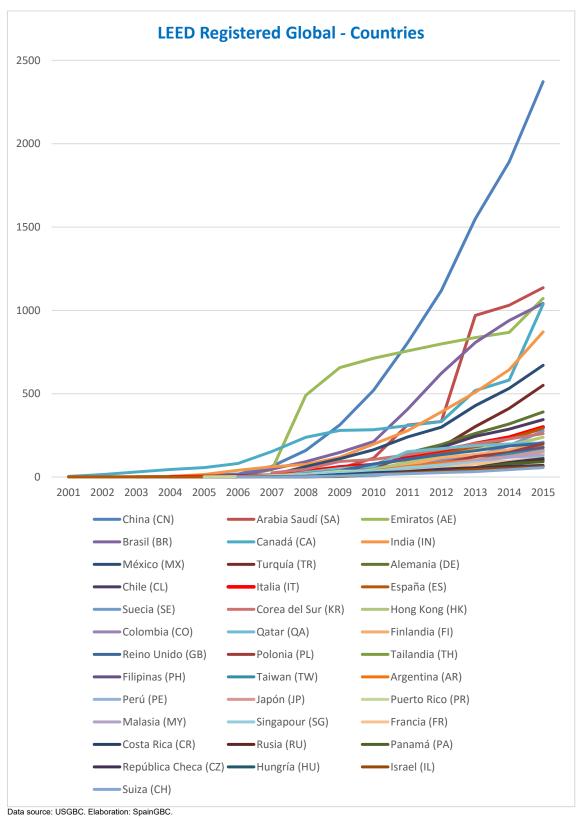
Data source: USGBC. Elaboration: SpainGBC.



Data source: USGBC. Elaboration: SpainGBC.

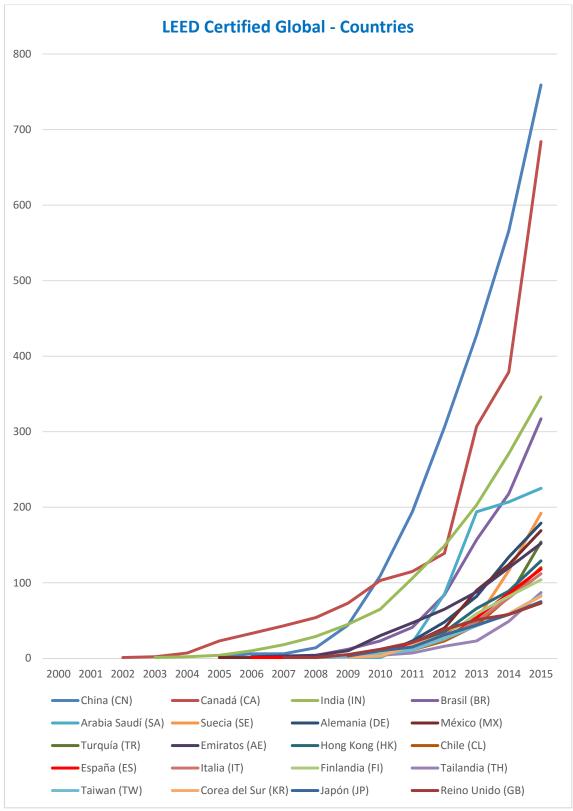
LEED Registrations outside USA (14.6% in 2015) halted their exponential growth in 2008, when the big recession hit the economy, but they started to recover in 2010-2011. LEED Certifications outside USA were very low, but with stable percentage of certified buildings until 2010. This means that their design and construction industry was learning and involved in the transformation process towards sustainability, which also meant a larger rate of failure on getting the LEED certification. After 2011 there has been more growth and higher rate of success.





China leads with more LEED Registered buildings, followed by Saudi Arabia, Emirates, Brazil, Canada and, then India, Canada, Mexico, Turkey, Germany, Chile, Italy and Spain. Emirates started with a quick and strong growth that was halted by the recession in 2008 and has not recovered yet.



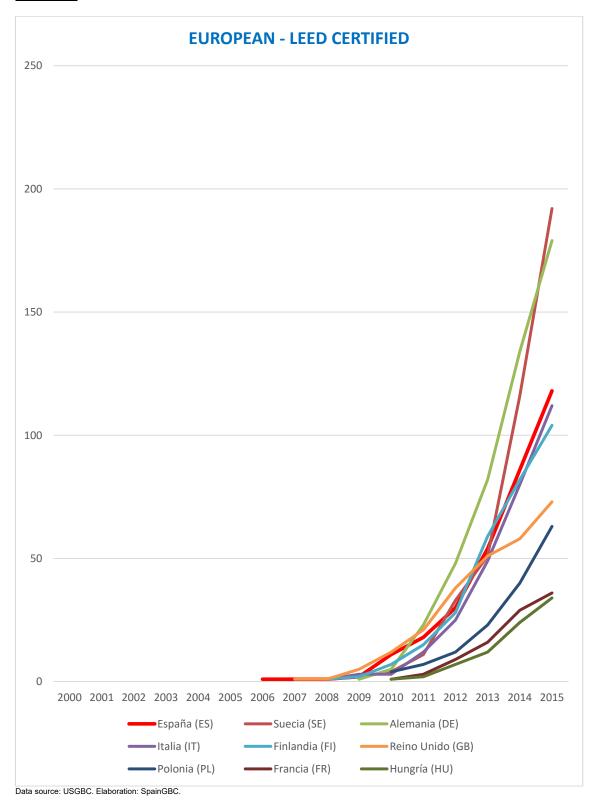


Data source: USGBC. Elaboration: SpainGBC.

China leads again with the most Certified LEED buildings, followed by Canada, India and Brazil. Then there is a group with, Saudi Arabia, Sweden, Germany, Mexico, Tukey, Emirates and Hong Kong. Emirates rate of success is very low in relation to the number of registered buildings.

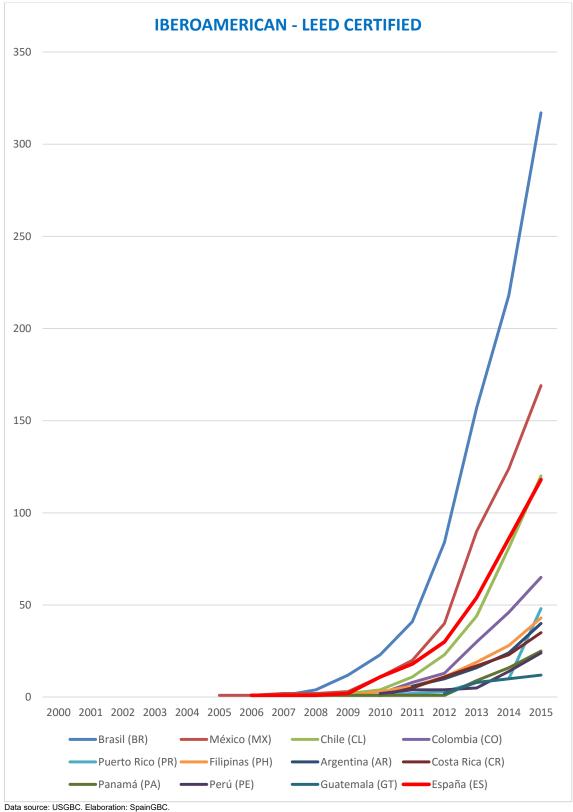


REGIONS



In Europe Sweden, Germany and Spain lead the group of Certified buildings with Italy and Finland following them. A third group includes UK, Poland, France and Hungary. The rest of the countries have smaller number of buildings. In Europe there are only two LEED-Councils - one in Spain and another in Germany. In Holland there is a LEED Council under formation.





In the Iberoamerican countries Brazil, Mexico, Chile and Spain lead the pack, followed by, Colombia, Puerto Rico, and the Philippines, and then the rest of the countries. In this region there are several LEED-Councils; Brazil, Chile, Argentina, Mexico, Panama...



COMMENTS

The following comments are constructive information with the sole intention to provide help and support to LEED development abroad. This document is also intended to provide an explanation of our vision on the development of LEED abroad and to encourage USGBC in the development of a clear international approach and to create less dependency on local-regional political influences.

China and India got the attention of USGBC because the USA industries are deeply involved in those countries and the American government was encouraging that during the last decade, many multinational companies were flocking to those countries, and not only those from the USA, also European companies went there. This trend is reversing now as due to the huge fracking oil & gas production, and its subsequent very low energy costs for manufacturing and production plants and other reasons related to - copyrights infringements, industrial espionage, security/juridical safety, transportation costs and times, increase in salaries, and huge number of robots at factories. Big corporations are coming back to USA soil.— Brazil has gotten more interest recently by USGBC due to the American investments for the World Cup and the Olympics, and Mexico because of the interest on Brics countries, and USA companies crossing the border for lower labor costs.

We have less than the 15-11% LEED buildings outside of the USA. This may seem negligible from an American perspective, but in most of the European countries LEED Registered and Certified buildings are by far larger in number than any other internationally competing certifications or local government developed systems (only in the UK, Breeam is well ahead). In Iberoamerica LEED is certainly the leader in every country with a negligible number of SBTools, Breeams or local government rating systems.

As we recommended some time ago, having only one LEED system which is identical all around the world would provide strength and consistency to the construction industry and add value to LEED. Eliminating local programs in Canada, India and Italy is the right direction and decision.

Over the years we have detected certain incongruences and dysfunctions:

- There is no a clear USGBC guideline, line of action, or program to support and spread LEED-Councils and LEED abroad, or at least we do not know of it, nor we did not see the effects of that from abroad.
- Other competing rating systems with LEED have their own international organizations
 that support them globally (UK Commonwealth Government with ISA-BreeamGreenGlobes-GreenStar-HKBeam, International Socialist with iiSBE-SBTools: VerdeHQE-DNGB-PITHACA ...). In LEED, we do not really have one organization that
 provides that level of support. The "LEED International Roundtable" is not doing that
 role at all.
- We do not understand why USGBC does not provide support to group of companies that want to create a LEED-Council in a certain country, while in that same country, USGBC does provide support and recognition to a Council that promotes a system that competes with LEED.
- We do not understand why in countries with well-established LEED-Councils over the years, USGBC provides support and recognition to groups supporting competing rating systems, but not to the group promoting LEED since many years.
- We do not understand why USGBC has admitted groups that promote certification systems that compete with LEED to the "LEED International Roundtable", but at the same time does not admit the LEED-Groups in these same countries which have been promoting only LEED for years. These other organizations are competing with and undermining LEED in their countries - it seems imperative to admit the organizations



that have for years working for the advancement of LEED buildings and have provided LEED training, and throw from the roundtable the ones that are competing and undermining LEED.

These non-LEED groups inside the "LEED International Roundtable", which compete
with LEED in their countries, usually get first-hand information and inside data from
USGBC that they use in their countries to halt, derail, stop, slow or destroy, if they can,
the advancement of LEED inside and the LEED group in their country. This should be
corrected.

Please see the analysis we made for the European Region, the results might be similar in other regions:

We have in Europe the following "LEED International Roundtable" members (certification systems ordered by their priority by every group priority):

- CZECH REPUBLIC: <u>www.czgbc.org</u>; this group promotes: SBToolCZ, BREEAM, DGNB, LEED. liSBE Chapter member
- 2. FINLAND: www.figbc.fi: this group promotes: BREEAM, LEED
- 3. FRANCE: www.feedonline.eu: this group promotes: nothing, because does not exists anymore, but is still included as member
- 4. GERMANY: www.german-gba.org: this group promotes: only LEED
- 5. HUNGARY: www.hugbc.hu: this group promotes: BREEAM, LEED, DGNB, EU-GREENBUILDING
- 6. IRELAND: www.igbc.ie: this group promotes: BREEAM, CPD Edu, LEED.
- 7. ITALY: www.gbcitalia.org: this group promotes: LEED, GBCHOME, GBC HISTORIC BUILDING, GBC QUARTIERI. The rest are their own certifications for residential, historic and neighborhoods
- 8. NORWAY: www.ngbc.no: this group promotes: BREEAM-NOR, which is a franchise developed using country regulations. Is a BRE member.
- 9. POLAND: www.plgbc.org.pl: this group promotes: LEED, BREEAM, DGNB, HQE, EU-GREENBUILDING, ECO-ITB. The last one is the government one. There is in the country another organization called www.icplgbc.pl, which only promotes LEED and it is outside the roundtable.
- 10. ROMANIA: www.rogbc.org: this group promotes: LEED, BREEAM
- 11. RUSSIA: www.rugbc.org/ru: this group promotes: "Зеленые стандарты", LEED, DGNB, BREEAM. The first is their local certification system "Green Rules".
- 12. SPAIN: www.gbce.es: this group promotes: VERDE=SBTool, DNGB, LEED. Is an iiSBE Chapter and iiSBE member. Please find attached body of evidence that www.gbce.es, is the iiSBE-Spain Chapter, iiSBE member, and a competitor to LEED, only promoting their VERDE=SBTool. Also their people has seats at their main iiSBE governing bodies since 2002. There is in the country another organization called www.spaingbc.org, which only promotes LEED, which is far older and it is outside the roundtable.
- 13. SWEDEN: www.sgbc.se: this group promotes: MILIJÖBYGGNAD, EU-GREENBUILDING, BREEAM-SE, LEED, CEEQUAL, CITYLAB. The first is the local one, bream is a franchise based on national regulations is a BRE member. The last ones are local systems.
- 14. SWITZERLAND: www.greenbuilding.ch: this group promotes: SNBS, MINERGIE, LEED, BREEAM, DGNB. The first one is their national system, minergie is the passivhaus adaptation locally.

Non-European groups put inside Europe:

For us Europeans, Europe finishes in European Russia, till the Urals. Kazakhstan is Asia. Caucasus and Turkey are Middle East Asia for us:

- KAZAKHSTAN: www.kazgbc.kz: this group promotes: OMIR, BREEAM, DGNB, LEED. The first one is their own certification probably another SBTools crony from iiSBE
- TURKEY: www.cedbik.org: this group promotes: ÇEDBIK-CASA, LEED, BREEAM, DGNB. The first one is their own certification for residential.



Conclusions: Other systems are named more than LEED. 14 groups in Europe. 2 organizations are outside the region and do not count; Kazakhstan & Turkey. 1 does not exists anymore, France. To make matters worse there are 2 groups that only do LEED and are not admitted inside the "LEED International Roundtable", Poland www.icplgbc.pl & Spain www.spaingbc.org. There are 2 groups that are BREEAM franchises, Sweden & Norway, so competitors and BRE members. There are 2 groups which are iiSBE Chapters members, Spain and Czech Republic, then competitors with their SBTool=VERDE=SBToolCZ=DGNB=HQE. The rest they do the smörgasbord of mixed interests and some their national systems. There are only 4 groups where LEED is in the first priority position; Germany, Italy, Poland & Romania, but the three last ones also support other systems apart from LEED. The Italian group is in fact a Trentino Regional Government controlled organization, not an industry one.

- WorldGBC: We think that is a good thing to have a common place of conversation and dialogue with other international and national organizations that have different approaches and interests to those than LEED. At this time, the WorldGBC is controlled mainly by iiSBE Groups followed by Breeam groups, with a minority of LEED groups, and there is still little interest or support from USGBC to allow existing LEED-Councils into that organization. WolrdGBC is in fact right now a political activist group to put pressure on climate change policies at COPs and Earth Summits is a political group. Our members are companies, interested in business and the industry advancement, not in doing politics.
- ISA-Breeam, iiSBE-SBTools and National Governments rating systems have totally different approaches to sustainability than LEED. They are intended to support and promote their policies and economic interests, actions towards the industry, globally, regionally and in various countries, and some of them on getting grants, subsidies and other government o multilateral moneys to fund their organizations through sustainability. They are political tools. On the other hand LEED addresses the built environment as a whole providing the means and tools to transform itself as industry towards sustainability with market & profitability driven goals in a free market-trade economy and self-regulation. LEED is an industry tool for self-transformation to sustainability. You can see that the two approaches are opposite.
- We have seen at many GreenBuild Expo&Confereces (we made most of them) a crystal clear USGBC alignment with the USA Democratic Party. As far as we know LEED and the Council were intended to be a cross-section of organizations and companies joined together for the industry self-transformation towards sustainability. To maximize the benefit to that industry in the long term, the Council should remain politically neutral. Now the Senate and Congress are Republican controlled, and this year the President might be also Republican. If so, will the USGBC will then realign itself in a crystal clear way with the Republican Party? This is also very bad internationally as LEED can be demised and rejected for being a tool of a particular political party (Democats-Socialists). USGBC, LEED and sustainability is not a political movement, and LEED-Councils, should be non-political organizations. It is said here in Europe that USGBC is also a group of the International Socialist Party. Aren't you that?

LEEDv4:

- The positive things we see are the restructuring in four clear rating systems and how some areas have been simplified and streamlined. On the other hand some have been complicated.
- The mention in the Reference Guide to European cities, "in many European cities, groundwater is being used at a faster rate than it can be replenished", this is a political phrase by the WBCSD and does not corresponds with reality. Water is not a problem in Europe. Even in Spain which might be the drier country, water for buildings represents only 12% of all potable water consumed (10% for building uses and 2% for dinking and hygiene), and we never had scarcity for it. Water biggest



consumer in Spain by far is agriculture, and this is very well regulated with watersheds infrastructures, dams, channels, pumping stations, mains,...

- o The use of LCAs and EPDs in Europe has been as low as in the US and the rest of the world. The problem with LCAs and EPDs is that they are a theoretical exercise (nothing close to reality) and provide subjective and politically biased information. Some numbers used for calculations are given by political bodies in most countries. In LEED, thresholds to be overcome must be totally objective. LCAs & EPDs are not objective.
- The Credits related to materials: "Low Emitting Materials" and "Building Product Disclosure & Optimization", have been put in a high degree of complication, making very difficult to attempt these credits and to achieve them when attempted. We understand now the protest by the USA materials and products trades associations against them.
- O You are using for some items "European Directives" from the European Commission. For your knowledge those are regulations, are laws that every EU country member has to transpose and enforce as laws and mandatory regulations inside their legislative body in less than certain number of years, if not, they are fined by the EU. So they enter inside the concept of "the worst that the law allows you to do it" and this is not under the LEED concepts of excellence. LEED does not put a threshold over the minimum established by the EU Directives. As per that, for the mere fact of being in EU a project will comply for these credits without any effort.

Please see some here related to Waste to Energy, EPDs, Materials components (REACH, RoHS), Outdoor-Indoor Air, Thermal, Acoustics, VOCs, named in the Reference Guides:

"Waste to Energy

European Commission Waste Framework Directive 2008/98/EC and Waste Incineration Directive 2000/76/EC are followed and Waste to Energy facilities meet applicable European. Committee for Standardization (CEN) EN 303 standards.

European Commission Waste Framework Directive 2008/98/EC and European Commission Waste Incineration Directive 200/76/EC. In addition, the facility must meet the applicable European standards based on the fuel type. See *Referenced Standards* for more information on these directives:

- EN 303-1—1999/A1—2003, Heating boilers with forced draught burners
- EN 303-2—1998/A1—2003, Heating boilers with forced draught burners
- EN 303-3—1998/AC—2006, Gas-fired central heating boilers
- EN 303-4—1999, Heating boilers with forced draught burners
- EN 303-5—2012, Heating boilers for solid fuels
- EN 303-6—2000, Heating boilers with forced draught burners
- EN 303-7—2006, Gas-fired central heating boilers equipped with a forced draught burner"

"EPDs. EN 15804 is a European standard for PCR development. CEN Comité Européen de Normalisation (European Committee for Standardization) EN 15804—2012 Sustainability of construction works, Environmental product declarations, Core rules for the product category of construction products."

"European Union's REACH program (for projects outside the U.S.) can be used as frameworks for documenting the substitution of potentially problematic substances. The European Union's REACH legislation requires all chemicals sold in quantity in the EU to be registered in a central database and prioritized for evaluation and possible avoidance based on their hazard profile. The program maintains several lists of "Substances of Very High Concern."



- Lead-free standards, such as RoHS in the European Union
- Hexavalent chromium in plated finishes consistent with the European Union Directive on the Restriction of the Use of Certain Hazardous Substances (EU RoHS);"

"Projects outside the U.S. may instead meet the minimum outdoor air requirements of Annex B of Comité Européen de Normalisation (CEN) Standard EN 15251–2007, Indoor environmental input parameters for design and assessment of energy performance of buildings addressing indoor air quality, thermal environment, lighting and acoustics; and meet the requirements of CEN Standard EN 13779–2007, Ventilation for nonresidential buildings, Performance requirements for ventilation and room conditioning systems, excluding Section 7.3, Thermal environment; 7.6, Acoustic environment; A.16; and A.17. Comité Européen de Normalisation (CEN) Standard EN 13779–2007, Section 6.2.3, Outdoor Air. »

"VOCs. European Decopaint Directive (2004/42/EC),

The German AgBB Testing and Evaluation Scheme (2010) is a leading industry standard that can be used for this credit, with some limitations. The AgBB standard does not represent a European consensus but does share common attributes with several European counterparts. It addresses six times more individual VOC requirements than the CDPH standard, and it specifies TVOC and total semivolatile organic compound (TSVOC) limits for all nonregulated substances. However, the standard has limitations, including the following:"

"The formaldehyde limit value of 10 μ g/m³ at 28 days must also be met when using the AgBB alternative, as specified for class A+ in French compulsory VOC emissions class labeling.

- The AgBB requirements use different exposure scenario conditions than CDPH. Because VOC emissions from building materials generally decrease over time, the point in time for determining compliance is critical. The more time there is for off-gassing to occur, the easier it may be to meet the standard, even though in many cases the difference is minor (most emissions decay within the first week). CDPH requires compliance at 14 days; the full AgBB requirements apply at three or 28 days, which this credit does not take into account.
- **667 EQ** Similarly, this credit allows the use of the ISO 16000 series standards when combined with the AgBB standard, the cited French legislation (Decree no 2011-321 and arrêté of 19 April 2011), or the DIBT method (German Institute for Building Technology, *Principles of Health Assessment of Construction Products in Indoor Environments*, 2010 dibt.de/de/ data/Aktuelles_Ref_II_4_6.pdf). The ISO 16000 series standards do not contain enough detail to be cited alone for testing in this credit. The same requirements for formaldehyde also apply in each of these cases."

LEED standards must not be based in current regultions and be above any regulation, which is not the case in the aforementioned ones. We understand the industry opposition to these items in LEEDv4. They are a politics intromission in a system supposed to be for and by the industry.



Departamento Comunicación

Spain Green Building Council®
Consejo Construcción Verde España®
Avenida de Europa, 14
P.E. La Moraleja
Alcobendas
28108 – Madrid, Spain
t. +34 911 890 555
e. ccve@spaingbc.org
www.spaingbc.org

El Spain Green Building Council - Consejo Construcción Verde España no es responsable ni de las imprecisiones del contenido ni de las opiniones expresadas en los artículos y notas de Prensa escritos por sus colaboradores.