ALDREN
Alliance for Deep RENovation in buildings.“

European Common Voluntary Certification Scheme, the tool for harmonized comparability European wide

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ENBEE Environment & Building Energy Efficiency

Background

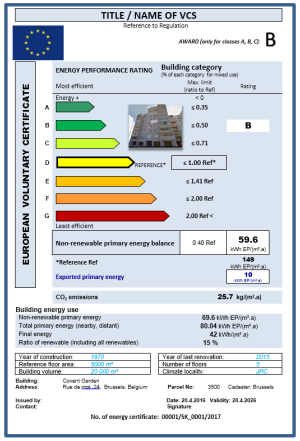
of the

„European Common Voluntary Certification Scheme for energy performance of non-residential buildings“

(EVCS)

Article 11 (9) of the EPBD

The Commission shall, in consultation with the relevant sectors, **adopt a voluntary common European Union certification scheme for the energy performance of non-residential buildings ...**



What does ALDREN EVCS offer?

- **Support for common language - link of energy performance with different market actors:**
  - ✓ financing
  - ✓ assets valuation
  - ✓ comfort and indoor air quality
- **Policy instrument** e.g. for subsidies (reliable **certificate issued before and after renovation**)
- **Create a business opportunity**
  - ✓ running the certification at the EU level
  - ✓ training of experts around EU
  - ✓ existing voluntary schemes operators (BREEAM, HQE, IVE, DGNB ...)

The main technical pillars for harmonized comparability European wide

- ❖ **Calculation methodology**
- ❖ **Indicators**
- ❖ **Performance scale and reference**
- ❖ **Content and template of European Voluntary Certificate**

CALCULATION METHODOLOGY

- ✓ **CEN standards 2017** (M/480) = the reference methodology
- ✓ **software** (methodology) **close to the CEN standards** (the **hourly calculation step** and the **scope**)
- ✓ **typical use** (shows intrinsic potential of building)
- ✓ **climate of the specific location** instead of national standard climate (JRC hourly climate data)

Table — Summary of main modular structure of EPB set of standards

	Over-arching	Building (as such)	Technical Building Systems									
Submodule	Descriptions	Descriptions	Descriptions	Heating	Cooling	Ventilation	Humidification	Dehumidification	Domestic Hot water	Lighting	Building automation & control	Electricity production
sub1	M1	M2		M3	M4	M5	M6	M7	M8	M9	M10	M11
1	General	General	General									
2	Common terms and definitions; symbols, and subs	Building Energy	Needs									
3	Applica											
4	Ways Express E Perform											
5	Buildi categorie Building Boundaries		Transmission									
6	Building Occupancy and Operating Conditions	Heat Transfer by infiltration and Ventilation	Distribution & control									
	Aggregation of											

The modular structure of new CEN standards 2017

Advantage:

- ✓ all products taken into account in the same way
- ✓ **Common EU market for**
  - software,
  - training of experts

THE ENERGY PERFORMANCE INDICATORS

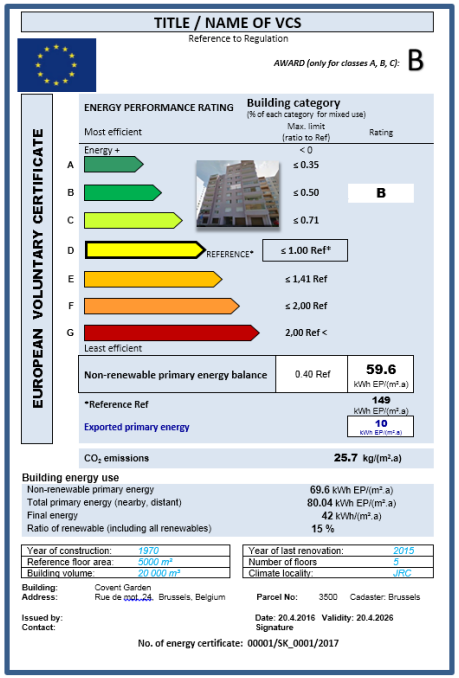
holistic approach for the building classification (rating)

= **non-renewable primary energy balance**

with potential compensation by exported energy

THE ADDITIONAL INDICATORS

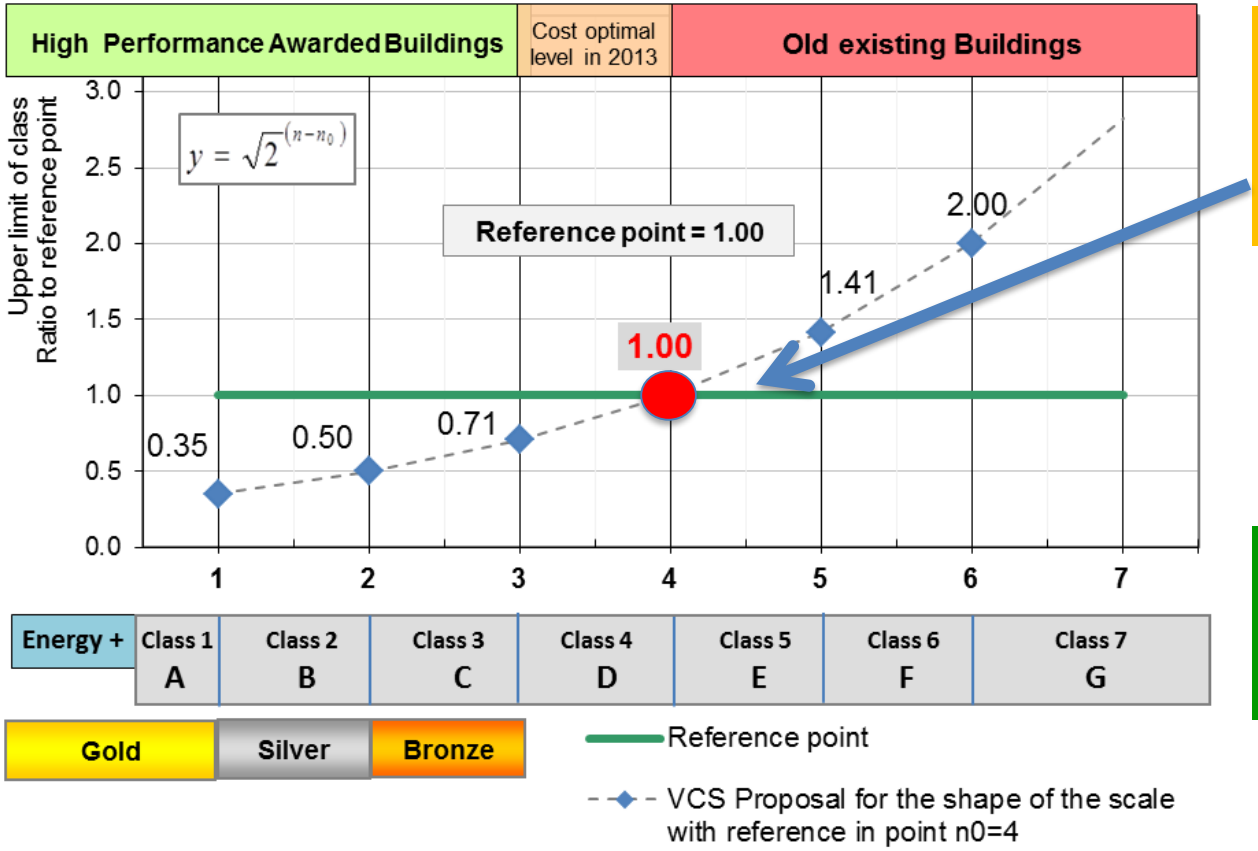
- total primary energy,
- final energy / delivered energy,
- share of renewables
- needs for heating and cooling
- CO_2 emissions (environment)



THE ENERGY PERFORMANCE SCALE

- ✓ **one comparable scale** for all countries
- ✓ **one scale for all building categories**
- ✓ **identify and highlight the best buildings** (Voluntary schemes are **front runners**)
- ✓ suitable for **existing buildings -** provide appropriate resolution **to show improvements** (shift to better class)

THE ENERGY PERFORMANCE SCALE



One reference point
≈ Cost optimal level (2013)
located in the upper limit of
class „D“.

Current minimum requirements ≈ class B-C

Class „A“ - approximation to the NZEB definition

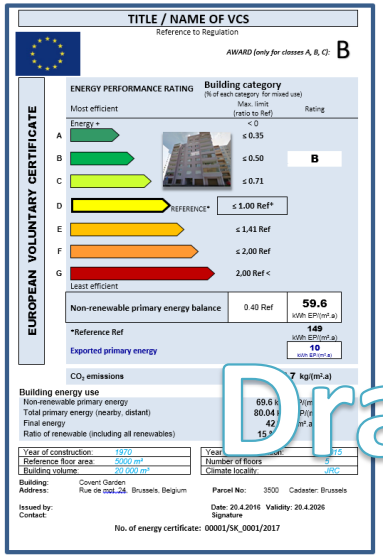
Relative scale - the ratio to the **„reference“**

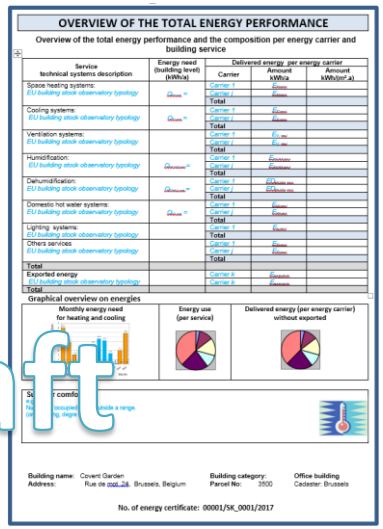
Reference = value expressed in kWh/(m².a)

Different options for the scale and reference and consequences will be tested.

EUROPEAN VOLUNTARY ENERGY PERFORMANCE CERTIFICATE ENERGY LABEL

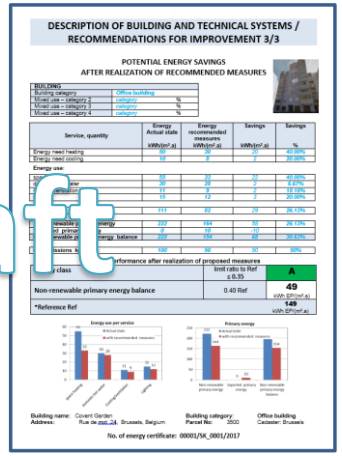
- ✓ Common template
- ✓ Energy Performance class
- ✓ Award (e.g. gold, silver, bronze)





NEXT PAGES

- ✓ Delivered energy per carrier (costs)
- ✓ **Wellbeing indicators**
- ✓ Description of constructions / systems
- ✓ **Recommendations for improvement** with potential energy savings – link with the **building renovation passport**



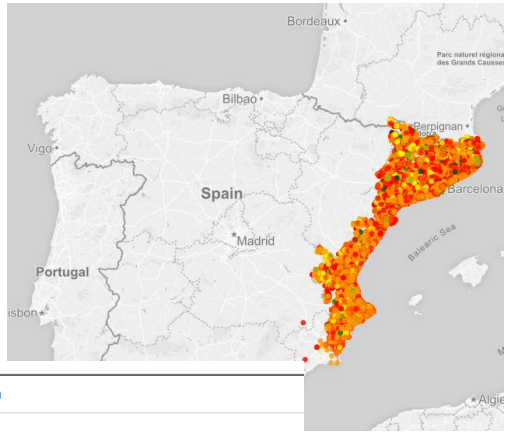
EUROPEAN VOLUNTARY ENERGY PERFORMANCE CERTIFICATE

THE OPTIONS FOR MARKET UPTAKE

- **stand-alone voluntary** energy performance certification, compliant with the EPBD requirements
- energy module taken up by **existing environmental certification schemes** providers (i.e. BREEAM, IVE, HQE, DGNB)
- recognized by the **policy makers** at the European, national or regional level as an **complement to the national certificates** for some purposes (e.g. subsidies, compare buildings at the EU level)

The ALDREN project aims

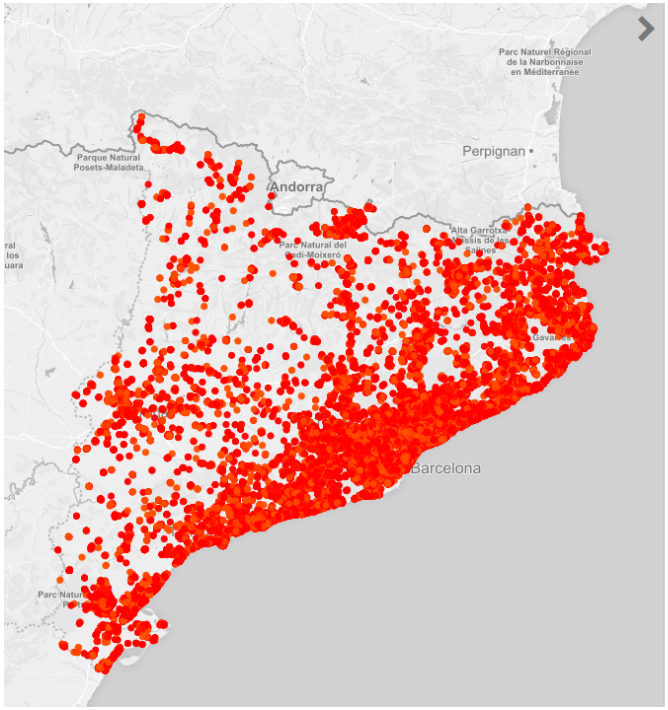
Focus on high impact
(large buildings of poor quality, large renovation potential ...

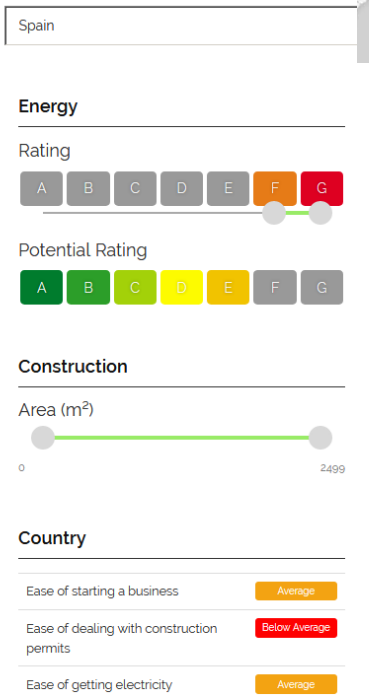


Example of potential large scale impact

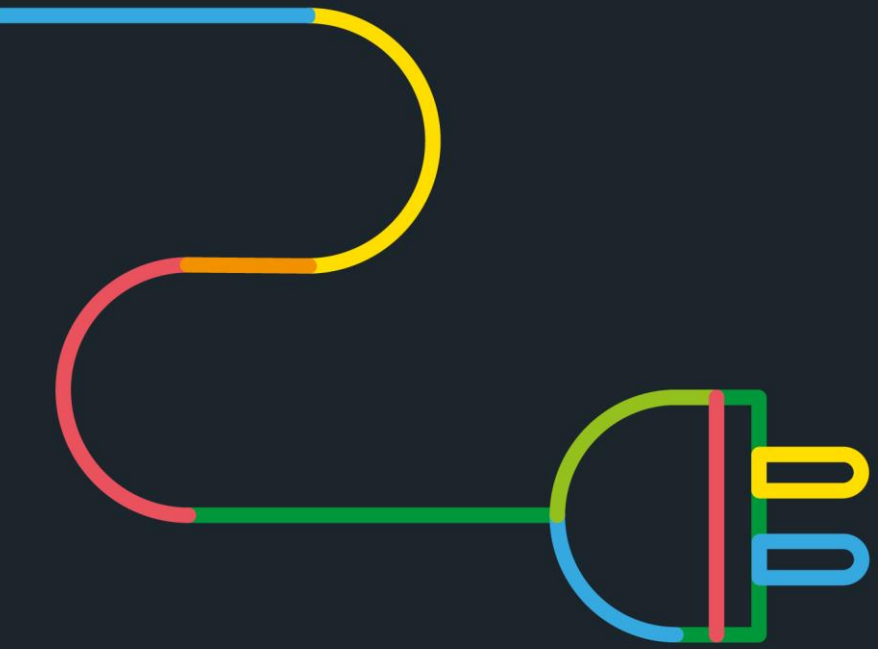
Identification of buildings with low energy performance (classes F-G).

ENERFUND tool
http://app.enerfund.eu/





Join us!



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The information in this publication does not necessarily represent the view of the European Commission.