

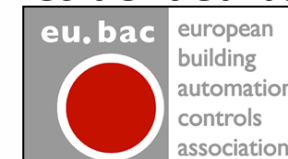
# 3º e 4º ENCONTROS NACIONAIS GESTÃO TÉCNICA CENTRALIZADA

As novas políticas para a Eficiência Energética nos Edifícios e as suas implicações nos Sistemas de Gestão Técnica

## ATUALIZAÇÕES NAS POLÍTICAS PARA A EFICIÊNCIA ENERGÉTICA NOS EDIFÍCIOS

**Jean Daniel (Dan) Napar**

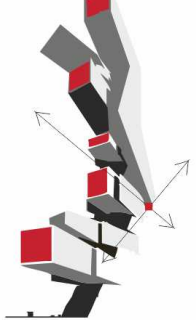
**President eu.bac**



LISBOA e PORTO 2018

PATROCINADORES





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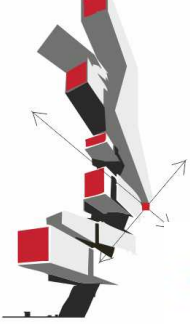
**1º The new political framework for EU : CLEAN ENERGY for ALL Europeans Package (30/11/2016)**

**2º Energy Performance of Buildings EPBD 2018 (July 2018) To be implemented in 20 months in the MEMBER STATES (MS) Content**

**3º Provisions for BACS**

**4º STANDARDIZATION Support (M/480 – EN 15232-1:2017 and EN15232-2:2017)**

**5º Next steps**



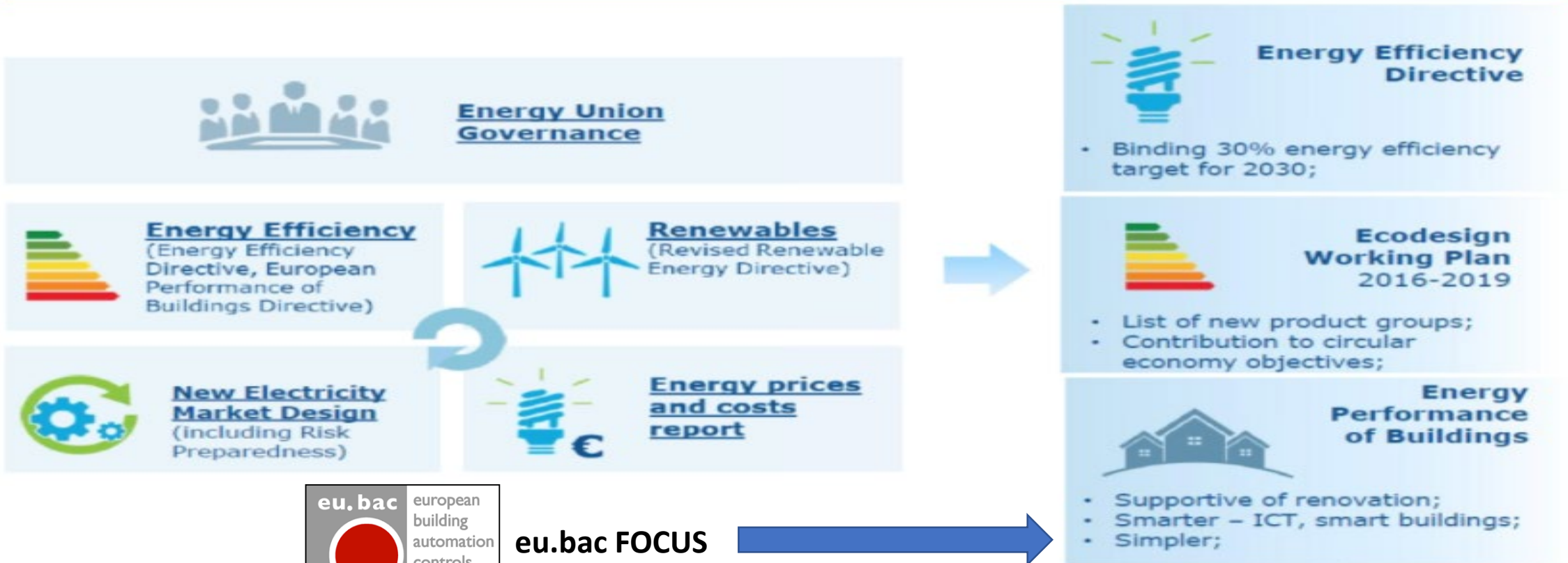
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CLEAN ENERGY FOR ALL EUROPEANS

## Clean Energy for All Europeans Package (30/11/2016)

THE RIGHT REGULATORY FRAMEWORK FOR POST – 2020



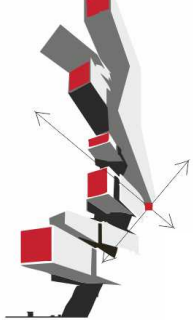
eu.bac FOCUS  
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DG ENER, European Commission



European





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CLEAN ENERGY FOR ALL EUROPEANS

## EPBD 2018: Main outcomes of the revision

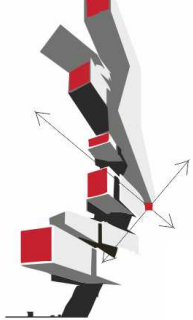
### A STRENGTHENED DIRECTIVE

- ✓ Stronger **long term renovation strategies** for Member States, aiming at decarbonisation by 2050 and with a solid financial component.
- ✓ A **Smart Readiness Indicator** for buildings.
- ✓ Targeted support to **e-mobility** infrastructure deployment in buildings' car parks.
- ✓ Enhanced **transparency** of national building energy performance calculation methodologies.
- ✓ Reinforcement of **building automation**: additional requirements on room temperature level controls, building automation and controls and enhanced consideration of typical operating conditions.

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CLEAN ENERGY FOR ALL EUROPEANS

## EPBD 2018: Focus on inspections & building automation

### A GREATER ROLE FOR AUTOMATION



Inspections on heating & air-conditioning systems are updated (Articles 14 and 15) – new provisions on self-regulating devices (Article 8(1))



Thresholds for inspections are set up at 70 kW for both heating and air-conditioning systems.



Alternative measures to mandatory inspections based on advice are kept, with reporting to the Commission.



installation of building automation and control systems in large non-residential buildings by 2025

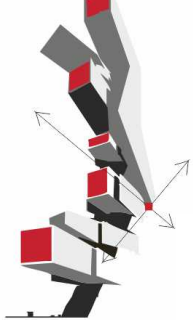


Additional requirements on the installation of self-regulating devices for room temperature level control in new buildings or when heat generators are replaced.

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CLEAN ENERGY FOR ALL EUROPEANS

## EPBD 2018: Smartness in buildings - a strategy for digitalisation

### VISION

*Smartness in buildings is an essential element in a decarbonised, renewable-intensive and more dynamic energy system in Europe with the aim of reaching the 2030 EU targets on energy efficiency and renewable energy, and of achieving a decarbonized EU building stock by 2050.*

### Objectives:

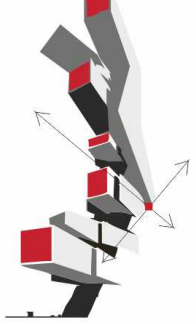
1. Achieve high energy efficiency by optimal operation;
2. Strengthen the role of demand side flexibility;
3. Ensure that the building user's needs are covered.

### 3 key instruments:

1. Smart Readiness Indicator for buildings under the revised EPBD;
2. Building automation and control systems (BACS) under Ecodesign and/or Energy Labelling regulations;
3. Energy smart appliances under Ecodesign and/or Energy Labelling regulations.

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**EPBD 2018: eu.bac has avocate « inter alia = among other things » for :**

**Introduction of BACS as Technical Building System and define BAC in accordance with BAC standards:**

Directive 2010/31/EU is amended as follows:

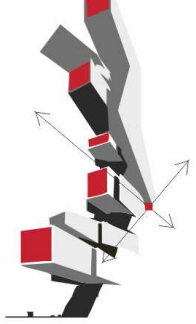
(1) Article 2 is amended as follows:

(a) point 3 is replaced by the following:

‘3. **“technical building system”** means technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, **building automation and control, on-site electricity generation, or a combination thereof**, including those systems using energy from renewable sources, of a building or building unit;’

(b) the following point is inserted:

‘3a. **“building automation and control system”** means a system comprising all products, software and engineering services that can support energy efficient, economical and safe operation of technical building systems through automatic controls and by facilitating the manual management of those technical building systems;’



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**EPBD 2018: eu.bac has avocate « inter alia = among other things » for :**

7) Articles 14 and 15 are replaced by the following:

‘Article 14

**Inspection of heating systems ...**

Such a report shall be submitted in accordance with the applicable planning and reporting obligations.

**4. Member States shall lay down requirements to ensure that, where technically and economically feasible, non- residential buildings with an effective rated output for heating systems or systems for combined space heating and ventilation of over 290 kW are equipped with building automation and control systems by 2025.**

The building automation and control systems shall be capable of:

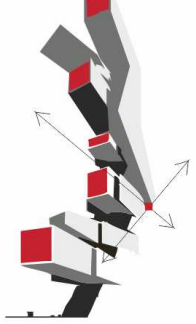
- (a) continuously monitoring, logging, analysing and allowing for adjusting energy use;
- (b) benchmarking the building’s energy efficiency, detecting losses in efficiency of technical building systems, and informing the person responsible for the facilities or technical building management about opportunities for energy efficiency improvement; and
- (c) allowing communication with connected technical building systems and other appliances inside the building, and being interoperable with technical building systems across different types of proprietary technologies, devices and manufacturers.

**5. Member States may lay down requirements to ensure that residential buildings are equipped with:**

- (a) the functionality of continuous electronic monitoring that measures systems’ efficiency and informs building owners or managers when it has fallen significantly and when system servicing is necessary; and
- (b) effective control functionalities to ensure optimum generation, distribution, storage and use of energy.

**6. Buildings that comply with paragraph 4 or 5 shall be exempt from the requirements laid down in paragraph 1**





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**EPBD 2018: eu.bac has avocate « inter alia = among other things » for :**

7) Articles 14 and 15 are replaced by the following:

*Article 15*

## **Inspection of air-conditioning systems...**

Such a report shall be submitted in accordance with the applicable planning and reporting obligations.

**4. Member States shall lay down requirements to ensure that, where technically and economically feasible, non-residential buildings with an effective rated output for air-conditioning or systems for combined air-conditioning and ventilation of over 290 kW are equipped with building automation and control systems by 2025.**

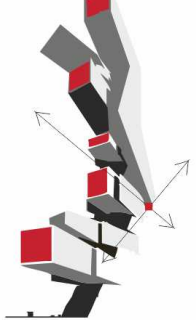
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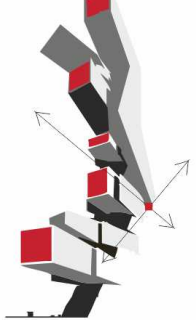


## STANDARDIZATION SUPPORT M/480

### EN 15232-1 and EN 15232-2 (TR)

The standard EN15232 :2017 "Energy performance of buildings – Contribution of Building Automation, Control and Building Management" provides **guidance** for taking BACS and TBM functions as far as possible into account **in the relevant EPB standards of M/480**. This standard specifies:

- A structured list of control, building automation and technical building management functions** which have an impact on the energy performance of buildings;
- A method to define minimum requirements** regarding the control, building automation and technical building management functions to be implemented in buildings of different complexities
- Detailed methods to assess** the impact of these functions on the energy performance of a given building. These methods enable to introduce the impact of these functions in the calculations of energy performance ratings and indicators calculated by the relevant standards;
- A simplified method to get a first estimation** of the impact of these functions on the energy performance of typical buildings.



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## STANDARDIZATION SUPPORT M/480

### EN 15232-1 and EN 15232-2 (TR)

The Technical Report CEN TR 15232-2 was developed in accordance with the requirements of M/480

#### From the standard:

##### *Scope*

*This document is a technical report accompanying prEN15232-2017 in accordance with the structure of the documents used in M480. This document contains additional information for better understanding of the standard EN15232-1.*

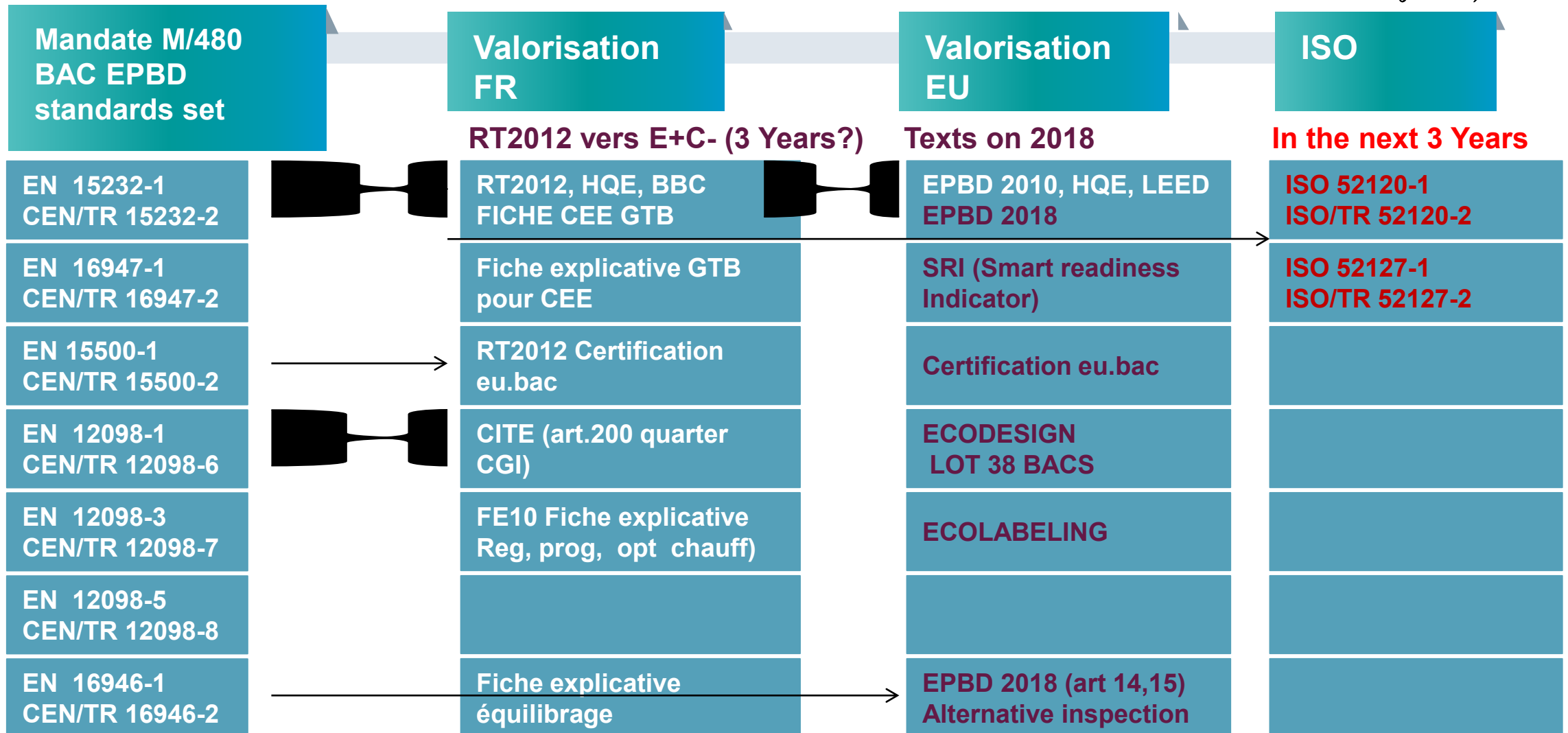
*This technical report does not contain any normative provision.*

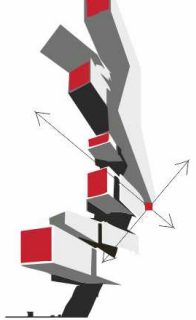
The Technical Report CEN TR 15232-2 gives a description and usability of the BAC Functions described in EN15232-2.

See the next slides for the next steps

# NEXT STEPS FOR M/480 BAC STANDARDS – 2018-2020

## STANDARDS = Reference for EU D/National REGL/CERT/LABELS





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