February – March – April – May – June – September 2020

- **Webinar 1** – **4th February 2020 (**12h00-13h30 CET**) –** Guidance and examples for the EPB standards' flexibility (**link**)
- **Webinar 2** – **19th March 2020 (**12h00-13h30 CET**) –** EPB standards overview
- **Webinar 3** – **16th April 2020 (**12h00-13h30 CET**)** – EPB standards post processing
- **Webinar 4** – **26th May 2020 (**12h00-13h30 CET**)** – EPB standards hourly vs monthly methods
- **Webinar 5** – **16th June 2020 (**12h00-13h30 CET**)** – EPB standards linked to health and wellbeing
- **Webinar 6** – **8th September 2020 (**12h00-13h30 CET**)** – Heating systems in the EPB standards

BUILD UP webinar series

Energy Performance of Buildings Standards (EN/ISO) supporting the implementation of EPBD

The revision of the EPBD and EPB standards

Brussels, 4 February 2020

New European Commission

President-elect
Ursula von der Leyen

Executive VP-designate
Frans Timmermans

Commissioner-designate
Kadri Simson

Director-General – DG ENER
Ditte Juul-Jørgensen

Kadri Simson

Commissioner-designate for Energy

The mission:

- Focus on the **rapid implementation** of energy-efficiency and renewable-energy legislation
- **Work closely with the Member States** to set out their National Energy and Climate Plans
- Given the increased ambition of the European Green Deal, there is a need to **review legislation**
- Ensure Europe follows the **energy-efficiency-first principle** across the board
- Look at how Europe can further **improve the energy performance of buildings and speed up renovation rates**

European Green Deal, 10 main points:

1. Climate neutral Europe by 2050
2. Circular economy
3. Building Renovation
4. Zero-pollution
5. Ecosystems & biodiversity
6. Farm to fork strategy
7. Transport
8. Money
9. R&D and innovation
10. External relations

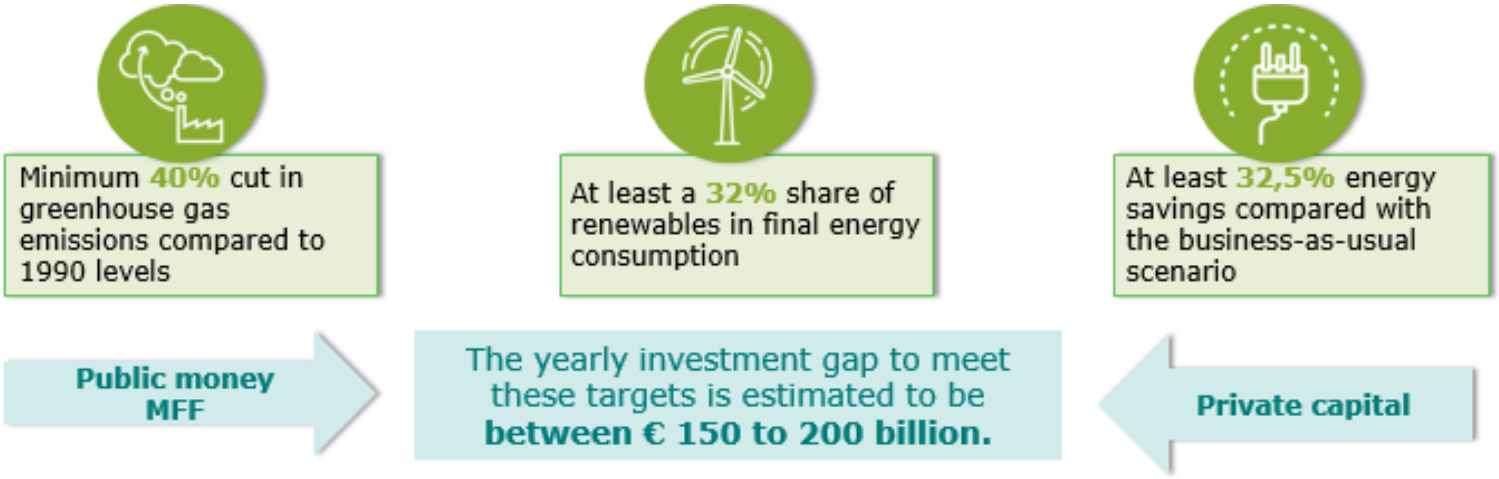
Renovation wave initiative for the building sector

- **Strategic Commission Communication**
  - Factual stocktaking and gap analysis per Member State
  - Analysis of main barriers to building renovation and of market-pull factors (financing, incentives, regulatory approaches, split-incentives, lack of information, skills)
  - Focus on social housing, schools, hospitals
- **Open platform on building renovation**
- **Media Campaign**

European Commission

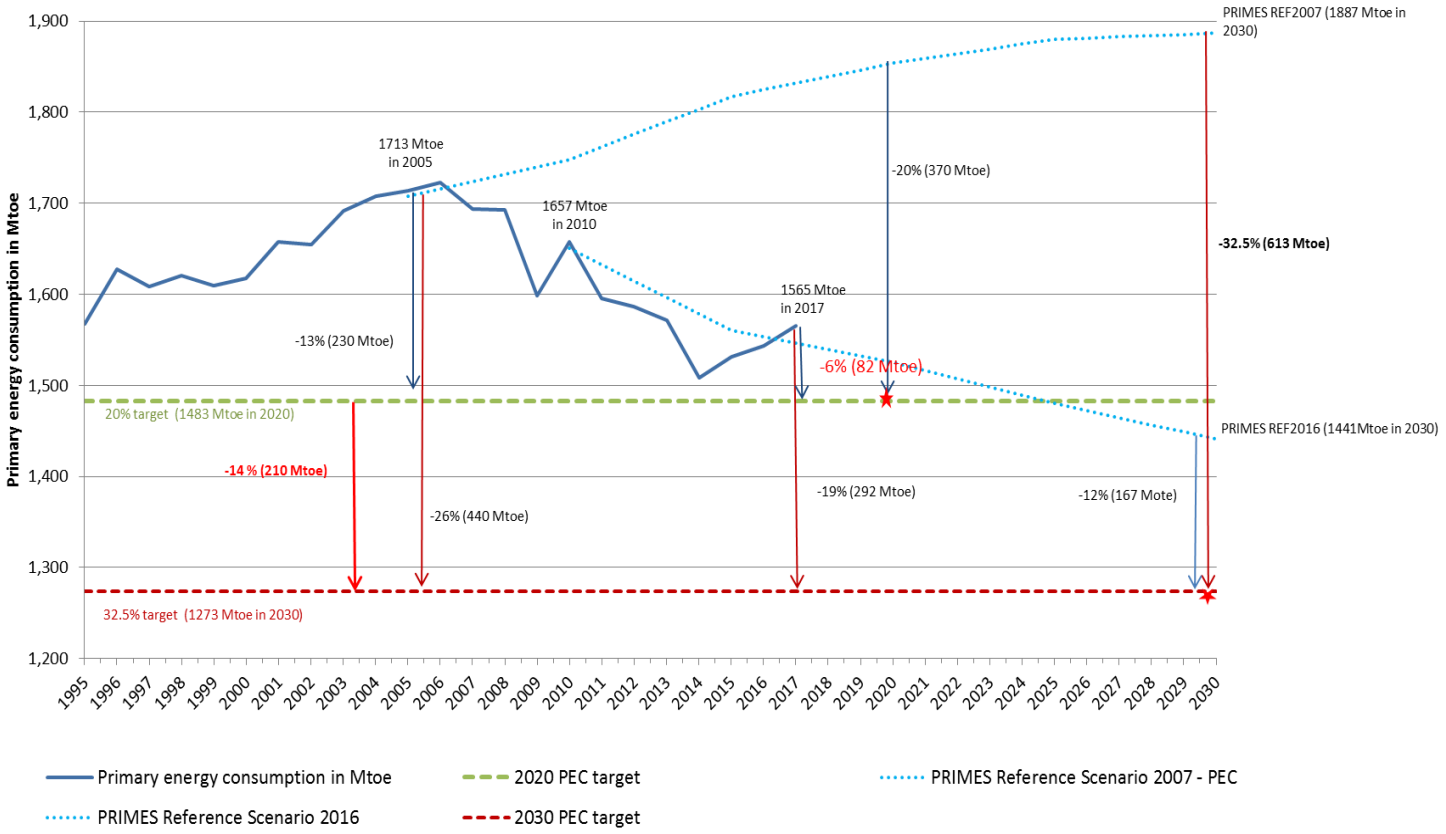
Clean Energy for All Europeans

The right framework for 2030 and 2050



Public support alone will not be sufficient to meet those investment needs.
The private sector will have to play a huge role and a smart policy framework is needed to incentivize private investment.

The energy efficiency challenge for 2020 and beyond



Energy consumption is **rising since 2014**, following an extended period of declining or flat consumption.

The distance to the **EU 2020 energy efficiency target** has been increasing.

https://ec.europa.eu/energy/en/studies/drivers-recent-energy-consumption-trends-across-sectors-eu28

Energy Performance of Buildings

Rapid implementation of the revised Directive to boost energy performance

- Reinforced obligations on building renovation, linked to NECPs
- Modernisation

Consolidating the basic EU framework

- Assess the 2nd cost-optimal reports for setting up minimum requirements
- Monitor and further promote NZEB uptake
- Reinforcing the quality of Energy Performance Certificates
- Better data for buildings
- Wider benefits of energy efficiency
- Share good practices of successful financial schemes

SYNERGIES

Engaging citizens

Finance focus

Sustainability of the built environment

Alleviation energy poverty

Circular economy

Cities action

Industrialisation and Digitalisation

Competitiveness

Skills

EPBD – main outcomes of the revised Directive

Supportive of building renovation by linking policy and financing

Smart *by ensuring the use of ICT and modern technologies*

Transposition deadline:10 March 2020

- **Stronger long term renovation strategies** for Member States, aiming at decarbonisation by 2050 and with a solid financial component.
- Requirements for the deployment of **e-mobility infrastructure** in certain buildings' car parks.
- An optional **smart readiness indicator** (SRI) for buildings
- **Reinforcement of building automation**: additional requirements on room temperature level controls, building automation and controls and enhanced consideration of typical operating conditions.
- **Enhanced transparency** of national building energy performance calculation methodologies.

Commission Recommendation:
- Buildings Renovation
- Buildings Modernisation

Long-term renovation strategies (Article 2a)

Requirement for Member States to establish comprehensive strategies aiming at a highly efficient and **decarbonised building stock** by **2050** and at a cost-effective transformation of existing buildings into **nearly zero-energy buildings**

- More elements to be considered: **energy poverty,** market failures and barriers, split incentives, necessary skills, health and safety issues, wider benefits
- Policies and actions to target all public buildings
- Set up a **roadmap** with measures, **measurable** progress indicators and indicative milestones for **2030, 2040** and **2050**
- Facilitate mechanisms for the mobilasation of investments

- Carry out a **public consultation**
- Part of the **Nationals Energy and Climate Plans**
- **Enabling condition for structural funds**

https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-performance-of-buildings/long-term-renovation-strategies

Annex I - Common general framework for the calculation of energy performance of buildings

Directive (EU) 2018/844 introduces changes into Annex I of Directive 2010/31/EU

- Improving **transparency and consistency** of the existing 33 different regional/national calculation methodologies
- Keeping **freedom and flexibility of Member States** to adapt their national or regional calculation methodologies to local and climatic conditions
- Putting more emphasis on **health, indoor air quality** and comfort levels and on the optimal performance of the **building envelope**
- Considering **Primary Energy Factors** (PEFs) and the treatment of on-site/off-site renewables

New obligation for Member States to describe their national calculation methodology following **the national annexes of the overarching standards** (ISO 52000-1, 52003-1, 52010-1, 52016-1, and 52018-1 developed under mandate M/480)

- Improve **transparency and comparability** but no harmonization of calculation methodologies
- **Not an obligation** on MS to comply with the EPB standards [recital 40]
- MS have **flexibility** to adapt the calculation methodologies to local and climatic conditions

Deadline: transposition deadline = **10 March 2020**
[Article 3 of the amending Directive (EU) 2018/844]

Flexibility for notification:

- notify the filled-in Annexes as part of the official communication to the Commission
- Make the filled-in Annexes publicly available: upload to a website, annex as part of the building codes, etc.
  [See recommendations]

Contract service provides support to MS
The core part of the communication and dissemination will be the EPB Center website (www.epb.center)

Thank you!

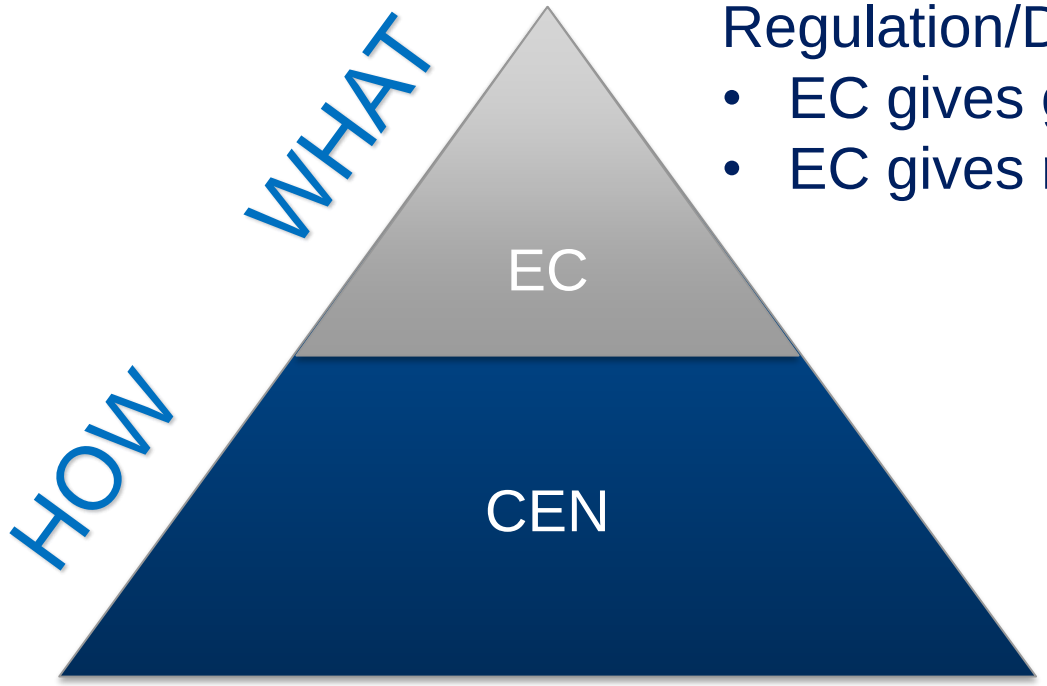
Dimitrios ATHANASIOU

Policy officer, Buildings team of Unit C4
European Commission - DG Energy
dimitrios.ATHANASIOU@ec.europa.eu

National annexes

Annet van der Horn

EU and CEN



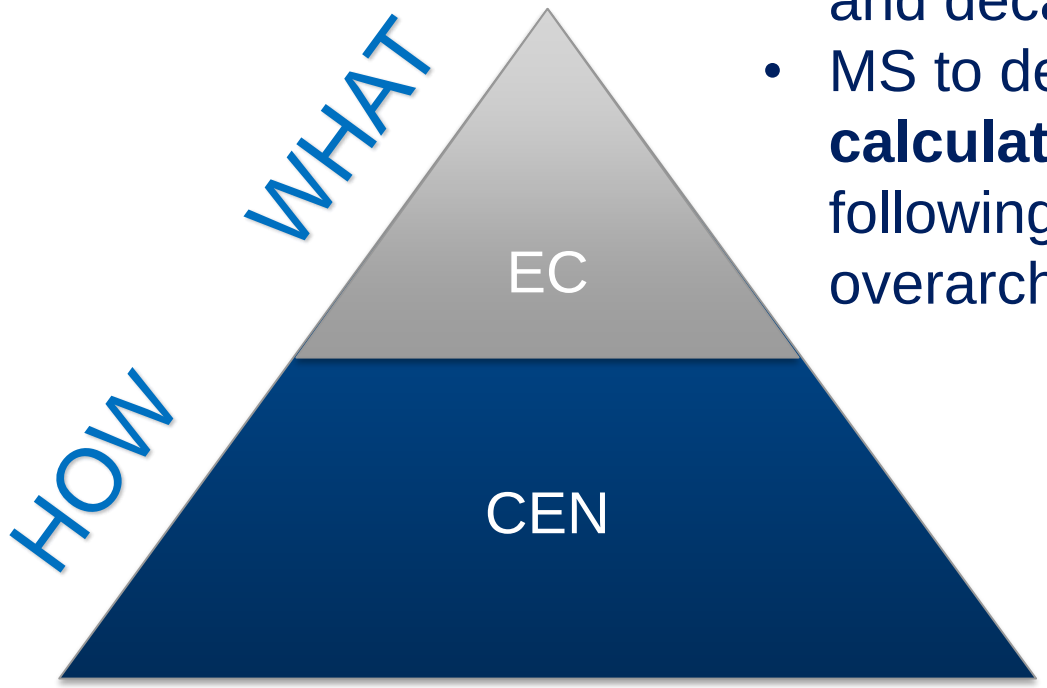
Regulation/Directive:

- EC gives **goals**
- EC gives **requirements/limits**

Standards:

- CEN gives **measurement method**

EU and CEN: Energy Performance of Buildings



EPBD:

- Sustainable, competitive, secure and decarbonised energy system
- MS to describe **national calculation methodology** following National Annexes of the overarching standards

Standards:

- **European calculation methodology** with flexibility for countries/regions in National Annexes

Regulation versus EN standards

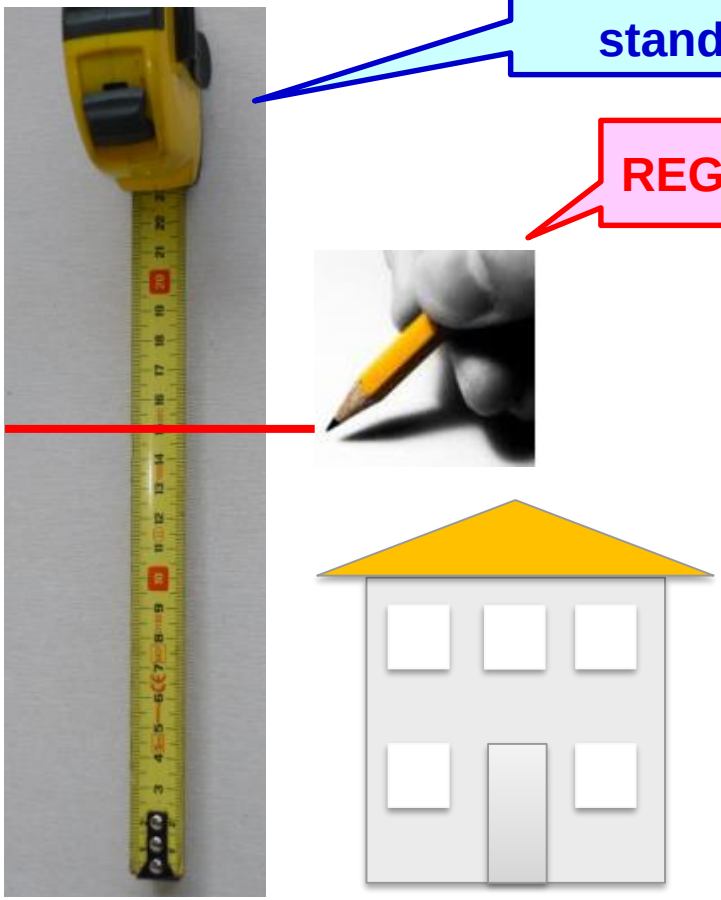
Setting up legal requirements to evaluate buildings and products requires:

A meter

- Calculation methods
- Common definitions

A benchmark

- Legal requirements

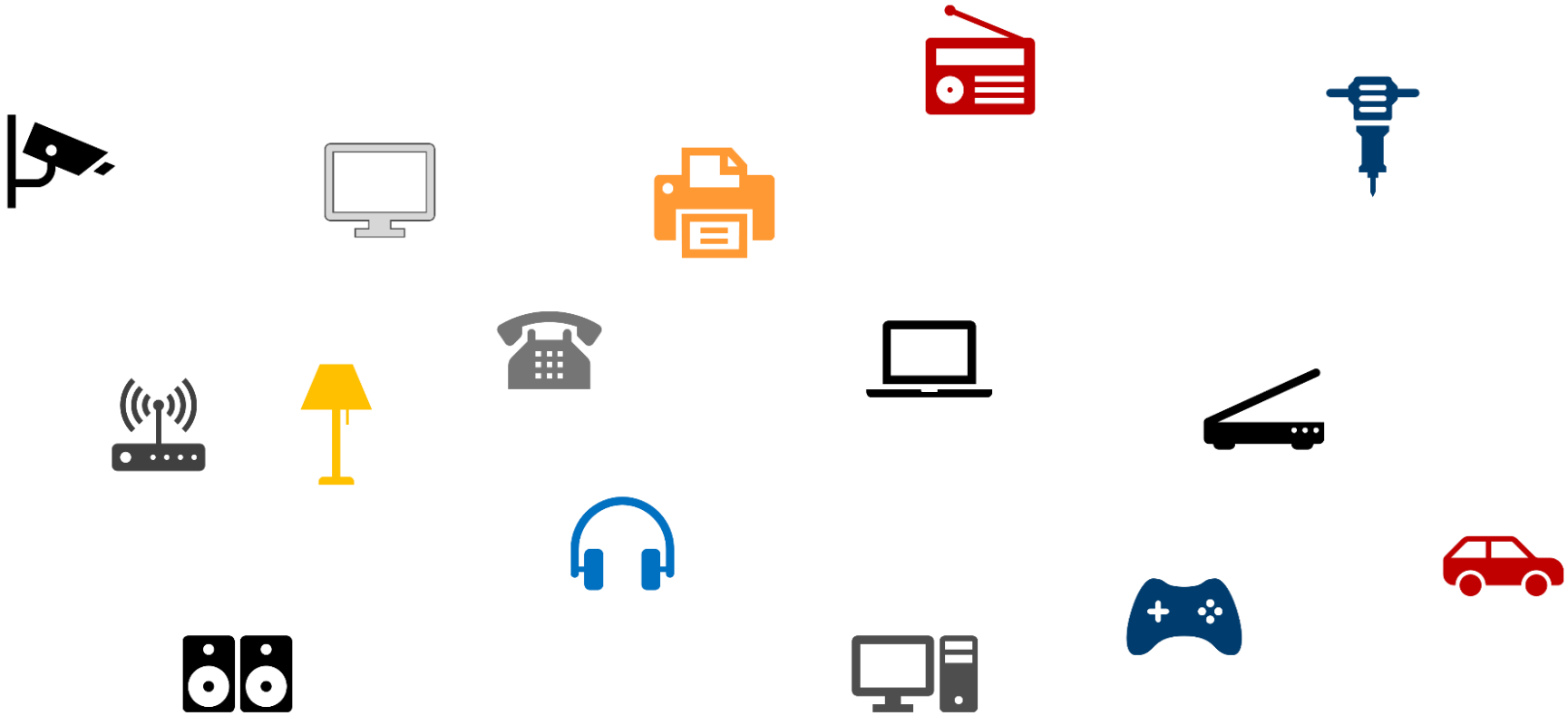


If you change the meter, you are changing the legal requirements

You have to know the meter to set-up correct requirements

European methodology: EPB = compare buildings

EPB = only building, not consumer use:



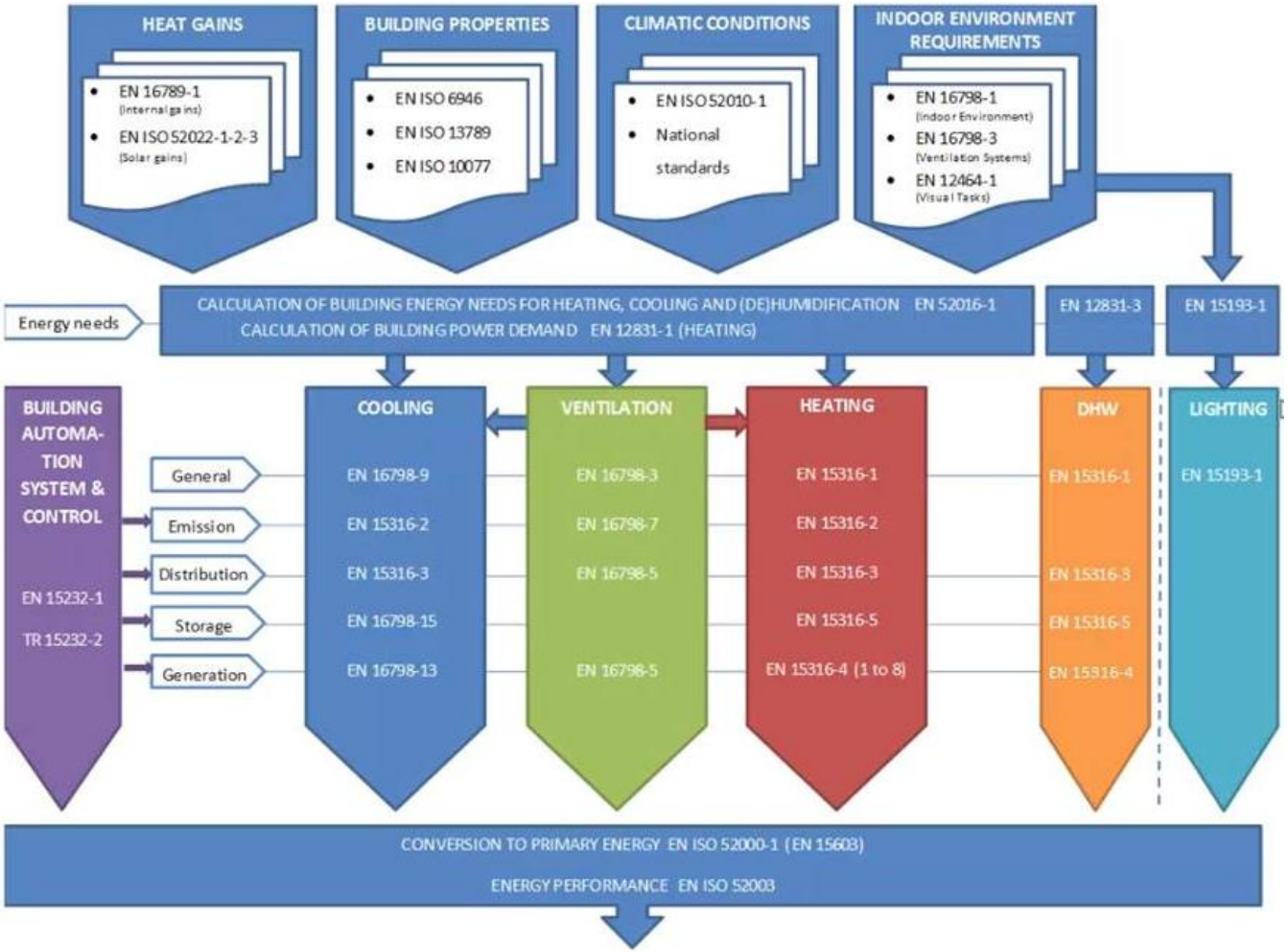
European methodology: many factors influence EPB

European methodology: factors

User behaviour	External influences	Cultural influences
Number of users	**Actual climate** (cold/warm winter/summer)	**building tradition**
Ventilation etc. behaviour	**Actual climate on site** (next to sea, in a windy place, etc…)	**building typologies**
Temperature etc. set points	**Actual location (latitude)**	**culture**
Use of shading devices	**Shading from other buildings/trees**	**policy and legal frameworks** (including the type and level of quality control and enforcement)
Maintenance of equipment	**Annexed buildings**	

European methodology: EPB set of standards

https://youtu.be/vi4ForJNdEs



Many links & interactions between the EPB standards

- Input/output relations between standards
- National choices possible

➔ overall consistency required:

  – detailed versus simple
  – Specification of building and space categories
  – Specification of new/existing building
  – Specific EPB standards or national procedures

National choices, each EPB standard

Annex A (normative)	Annex B (informative)
• Empty framework • Template for – choices – input data – references • Lay-out is mandatory	• Framework filled in • Voluntary – default choices – default input data – default references • Use is optional

Annex A: template

Table A.25 — Conversion factors for net to gross calorific values for energy carriers (See 9.6.2)

Energy carrier [a]	Conversion factor $f_{GCV/NCV}$
[a] Add the rows of the energy carriers.	

Annex B: Default Choice

Table B.25 — Conversion factors for net to gross calorific values for energy carriers (See 9.6.2)

Energy carrier	Conversion factor $f_{GCV/NCV}$
OIL	1,06
GAS	1,11
LPG	1,09
COAL	1,04
LIGNITE	1,08
WOOD	1,08
NOTE Add the rows of the energy carriers.	

National Annex: National Choice

Table NA.25 — Conversion factors for net to gross calorific values for energy carriers (see 9.6.2)

Energy carrier	Conversion factor $f_{GCV/NCV}$
oil	1,06
gas	1,11
LPG	1,09
coal	1,04
lignite	1,08
wood	1,08
NOTE Add the rows of the energy carriers.	

National Data Sheet: National choice

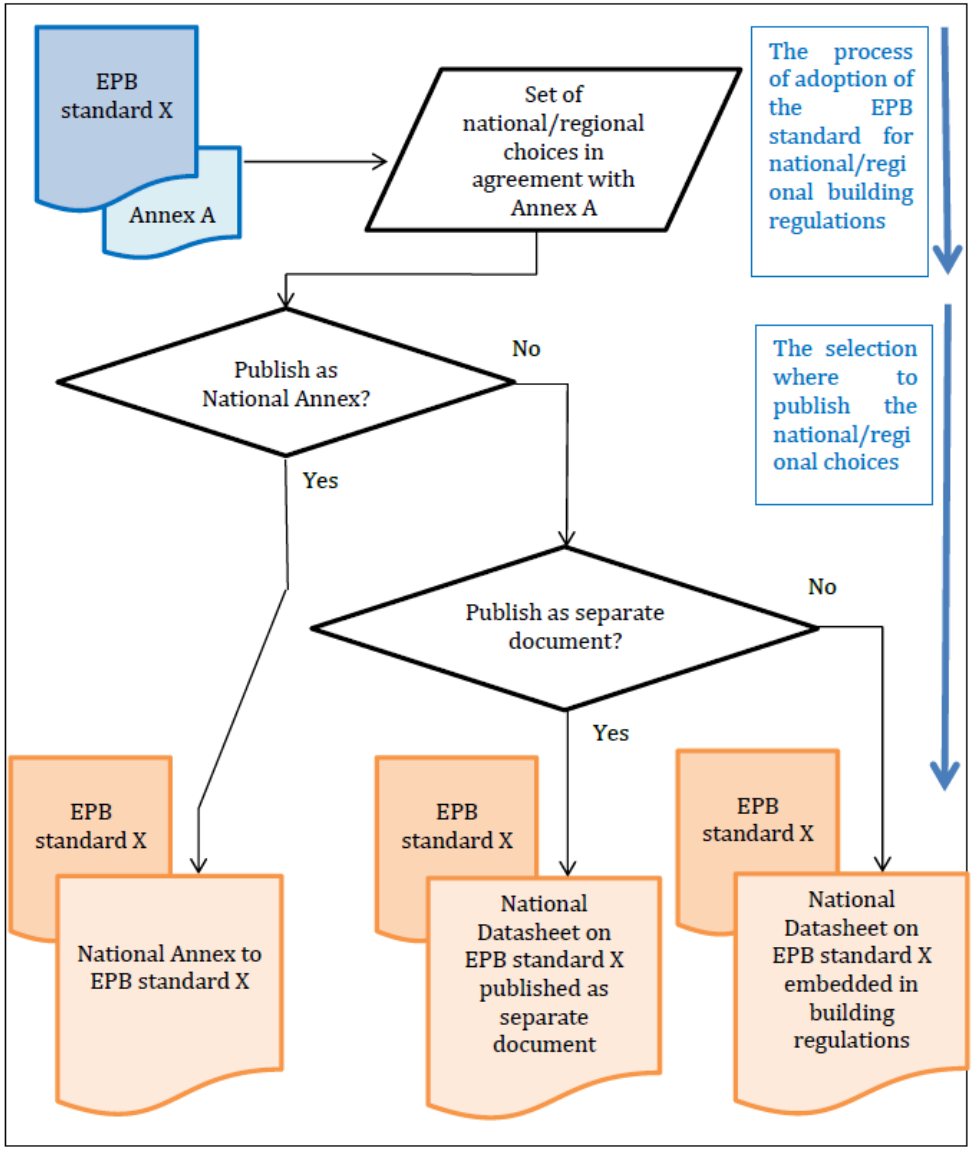
Table 25 — Conversion factors for net to gross calorific values for energy carriers (see 9.6.2)

Energy carrier	Conversion factor $f_{GCV/NCV}$
oil	1,06
gas	1,11
LPG	1,09
coal	1,04
lignite	1,08
wood	1,08
NOTE Add the rows of the energy carriers.	

National Annex - National Data Sheet

National Annex	National Data Sheet
• Annex A filled in • Published by national standards body as annex to EPB standard • Informative (can be made mandatary by building code) • More Annexes (NA, NB, NC…) possible for specific applications	• Annex A filled in • Published by national authority, separately or in building code • Mandatory or informative • More Data Sheets possible for specific applications

National Annex - National Data Sheet



Building codes

Assessment of the energy performance building regulations
National or regional authorities can mandatory prescribe:

- National Annex(es) (or different sets, depending on the application)
- National Data Sheet(s) (or different sets, depending on the application)

And even:

- Specific Data Sheet(s) (or different sets, depending on the application)

Specific Data sheet: Tailored Choice

Table Pilot X.25 — Conversion factors for net to gross calorific values for energy carriers (See 9.6.2)

Energy carrier	Conversion factor $f_{GCV/NCV}$
oil	1,06
gas	1,11
LPG	1,09
coal	1,04
lignite	1,08
wood	1,08
Pineapples	1,3
NOTE Add the rows of the energy carriers.	

Specific Data Sheet

Specific Data Sheet

- Annex A filled in
- (Published) by private party
- In legal context of a contract
- May not overrule national legislation

Description of national calculation methodology

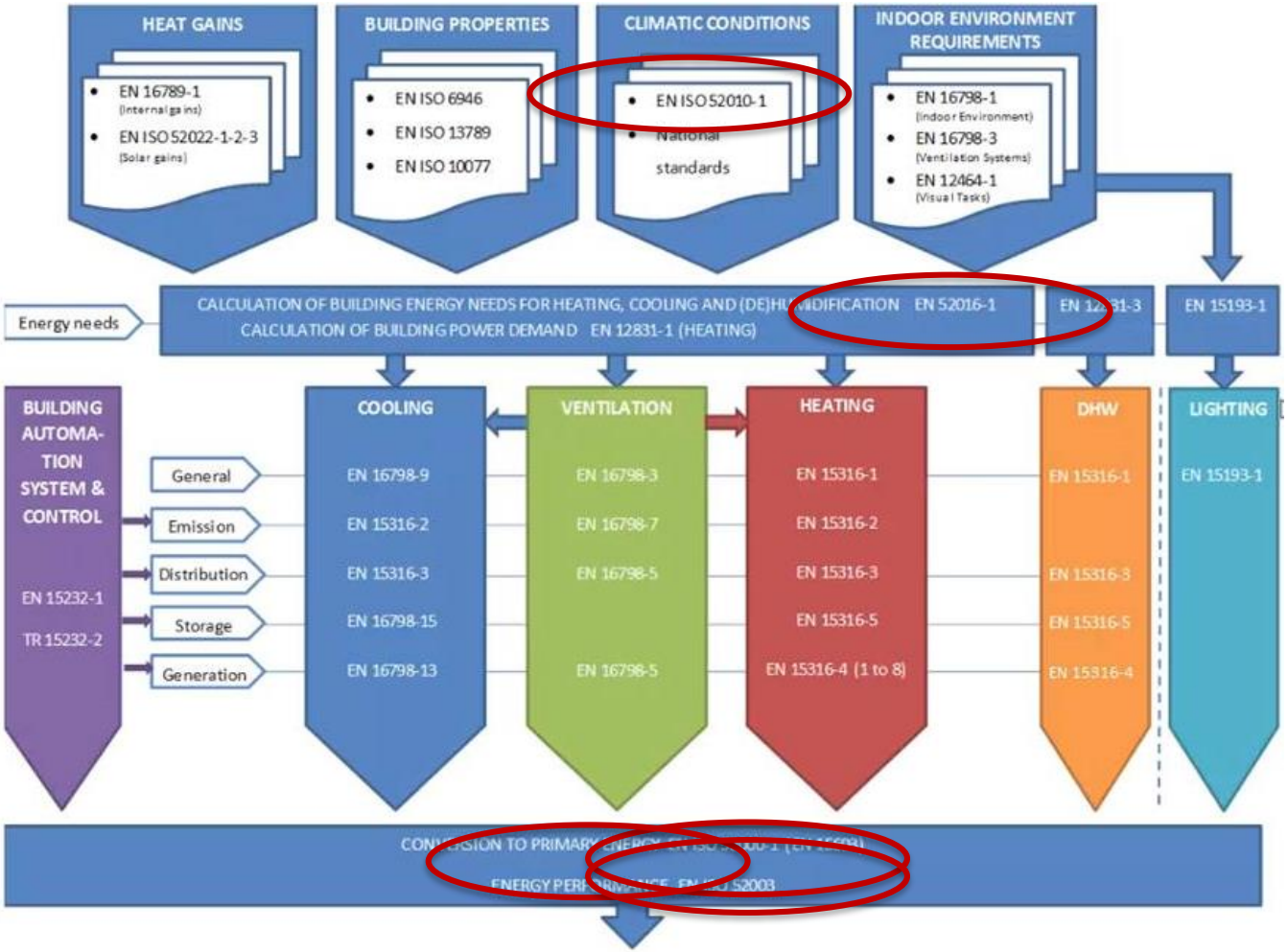
Table NA.25 — Conversion factors for net to gross calorific values for energy carriers
(See 9.6.2)

Energy carrier	Conversion factor $f_{GCV/NCV}$
oil	1,06
gas	1,08 a)
LPG	1,09
coal	1,04
lignite	1,08
wood	1,08
NOTE Add the rows of the energy carriers. a) Research by GasConsult shows that the national gas mix has a conversion factor of 1,08, see gasconsult.eu	

Description of national calculation methodology

Description of national calculation methodology
• Following Annex A as much as possible • Violation clearly marked • With additional explication where needed • Sent to EC by March 10th 2020 • Is NOT a legal codification of those standards

Description of national calculation methodology: 5 overarching standards



EN ISO 52000-1 *Energy performance of buildings – Overarching EPB assessment — Part 1: General framework and procedures*

- Physical parameters
  - E.g. gross calorific values
- Differentiation into different building and space categories
  - Distinction between -for example- single family house, apartment building, office, hospital, education, assembly, sport, restaurant, hotel, holiday home, etc.; or e.g. a less refined differentiation
- Plus related issues such as:
  - which categories are kept outside the boundaries of the EPB-assessment
    - > for instance industrial sites, workshops, indoor parking; or any other choice of building or space categories

!!!Strong impact on:
- Conditions of use
- Partition into zones
- EP requirements

EN ISO 52000-1 *Energy performance of buildings – Overarching EPB assessment — Part 1: General framework and procedures*

- Energy performance boundaries
  - E.g. whether PV surplus to the grid is rewarded in the energy performance or not. Or whether “distant” and/or “nearby” renewable energy sources (with –national-specification of “nearby”) are included in the renewable energy contribution or not
- Policy factors
  - E.g. Primary energy factors. The choice of PE factors for electricity versus e.g. gas and oil will have a direct effect on the competitiveness of technologies that use the one or the other energy carrier

EN ISO 52003-1 *Energy performance of buildings – Indicators, requirements, ratings and certificates– Part 1: General aspects and application to the overall energy*

- EPB indicators ↔ EPB requirements and EPB ratings
- Guidance on EPB labels and certification scheme
- The tables are non-restrictive, thus allowing for full regulatory flexibility
  - E.g. Choices on *Numerical Indicators*:

Table A.2 — Default choices with respect to the overall EPB requirements (see 9.5)

Application:		
Overall energy performance feature	**Requirement?**	**Exceptions*?**
Total primary energy use		
Non-renewable primary energy use		
Renewable primary energy use		
Renewable energy ratio		
Greenhouse gas emissions		
Energy policy factors (define*)		

EN ISO 52018-1 Energy performance of buildings – Indicators for partial EPB requirements related to thermal energy balance and fabric features – Part 1: Overview of options

- The tables are non-restrictive, thus allowing for full regulatory flexibility
- Choices to set requirements on partial energy performance features such as:
  - Summer thermal comfort?
  - Winter thermal comfort?
  - Energy needs for heating and/or cooling (with specs...)?
  - Thermal insulation of envelope and/or individual elements?
  - Thermal bridges?
  - Windows energy performance?
  - Air tighness?
  - Solar control?
  - Other?

Example of national choices
from EN ISO 52018-1

Followed by tables for more details for each (if applicable), e.g.:
on *summer thermal comfort*:

Table A.3 — Numeric indicator used for the requirement on the summer thermal comfort (see Clause 7)

Application: ...	
Numeric indicator	**Choice**
Time above a fixed reference temperate [h]	
Temperature weighted time above a fixed reference temperature [K·h]	
<free text> Other indicator; define*)	
...	

Again: full freedom, but the choices help to get transparency and structure

EN ISO 52010-1 *Energy performance of buildings – External climatic conditions– Part 1: Conversion of climatic data for energy calculations*

- calculation of solar irradiance on a surface with arbitrary orientation and tilt, using measured data from weather station
- National choices :
  - Which weather station and climatic data set
  - Method to estimate direct solar (beam) irradiance if not available from weather station
  - Solar reflectivity of the ground (fixed value?, variable function of conditions?)
  - (default) solar shading from surroundings included or not
    - > And if included: choice between simple and detailed method

EN ISO 52016-1 *Energy performance of buildings – Energy needs for heating and cooling, internal temperatures and sensible and latent heat loads– Part 1: Calculation procedures*

- Main choice: hourly and/or monthly method (choice may differ per category of buildings)

A.3 Selection of main method

Table A.2 — Choice between hourly or monthly calculation method (see 5.2)

Type of object and/or application	….. [b]	…. [b]
Description	Choice [a]	Choice [a]
Only hourly method allowed	Yes/No	Yes/No
Only monthly method allowed	Yes/No	Yes/No
Both methods are allowed	Yes/No	Yes/No

[a] Only one Yes per column possible.

[b] Add more columns if needed to differentiate between type of object, type of building or space, type of application or type of assessment. Use the list of identifiers from ISO 52000-1:2017, Tables A.2 to A.7 (normative template, with informative default choices in Tables B.2 to B.7).

EN ISO 52016-1*Energy performance of buildings – Energy needs for heating and cooling, internal temperatures and sensible and latent heat loads– Part 1: Calculation procedures*

A.4 Zoning

Table A.3 — Thermal zoning rules (see 6.4.2.12)

Description [b]	Application: ..... [a]	
	Apply the described method?	If "No": Alternative method If the described method is not used, describe details of the alternative method or give reference to source document
Zoning step 1. Assessment of thermal envelope	Yes/No	<free text>
Zoning step 2. Grouping according to space category	Yes/No	<free text>
Zoning step 3. Grouping in case of large openings	Yes/No	<free text>
Zoning step 4. Split to have same combination of services	Yes/No	<free text>
Zoning step 5. Further grouping according to similar thermal conditions of use	Yes/No	<free text>
Zoning step 6. Split according to specific system or subsystem properties	Yes/No	<free text>
Zoning step 7. (Further) split to have sufficient homogeneity in thermal balance	Yes/No	<free text>
Zoning step 8. (Further) grouping of thermally unconditioned zones	Yes/No	<free text>
Zoning step 9. Simplification in case of small thermal zones	Yes/No	<free text>
Zoning step 10. Simplification in case of very small thermal zones	Yes/No	<free text>

a Add more columns to differentiate per application, if needed

2nd main choice:

Specific rules for thermal zoning (in 10 steps):

Each step can be modified or replaced

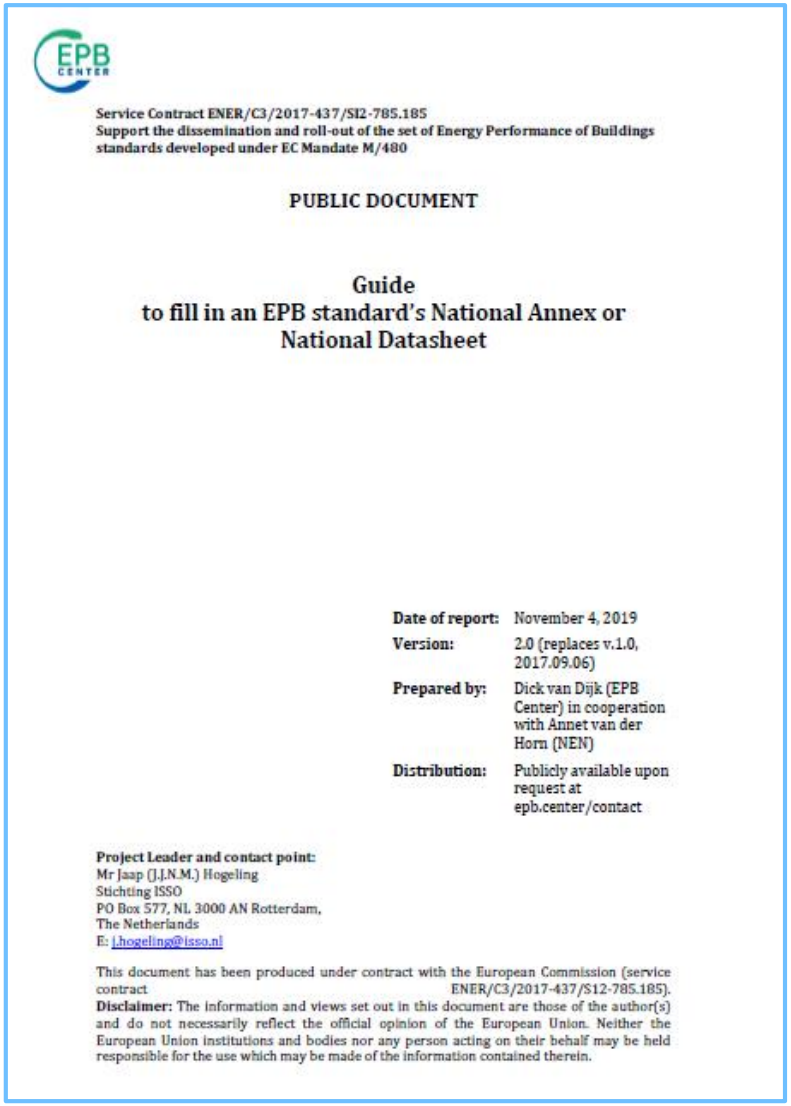
A National Annex can not alter the standard

- only choices can be made that are explicitly offered as a choice
- additional changes are not permitted
- additional information can be given for easier implementation
- E.g. values or methods that fit the national/regional regulations

National Annex and National Datasheet on same EPB standard can co-exist:

- the National Datasheet will be part of or referred to in the national or regional building regulations;
- the National Annex may have been prepared by the National Standards Body to serve other applications.

More information



Service Contract ENER/C3/2017-437/SI2-785.185
Support the dissemination and roll-out of the set of Energy Performance of Buildings standards developed under EC Mandate M/480

PUBLIC DOCUMENT

Guide
to fill in an EPB standard's National Annex or National Datasheet

Date of report:	November 4, 2019
Version:	2.0 (replaces v.1.0, 2017.09.06)
Prepared by:	Dick van Dijk (EPB Center) in cooperation with Annet van der Horn (NEN)
Distribution:	Publicly available upon request at epb.center/contact

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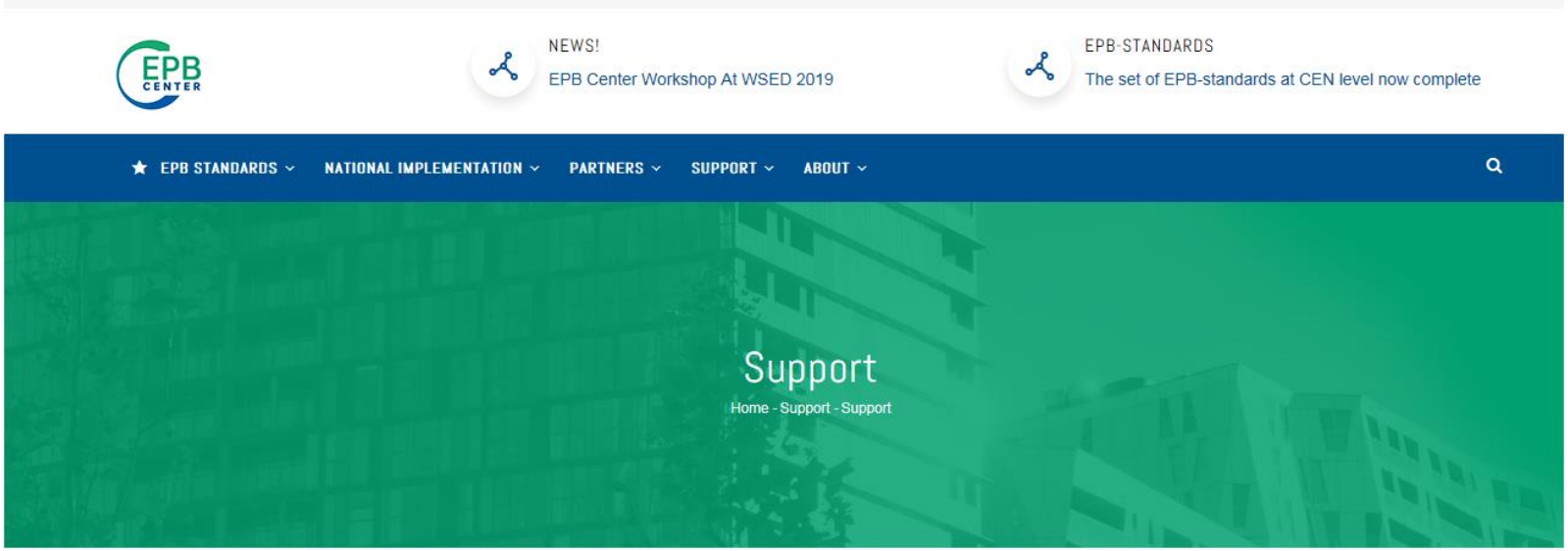
This document has been produced under contract with the European Commission (service contract ENER/C3/2017-437/S12-785.185).

More information



Support

We are dedicated to provide stakeholders and interested parties with technical support for the implementation and dissemination of information on the set of EPB standards at national and regional level. While providing this support we also aim to assist with formulating needs in order to further develop and improve this set of EPB standards.

Support

- ACTIVITIES
- DOWNLOADS
- EPB CENTER SERVICES
- EPBD
- NEED FOR COORDINATION
- FAQ
- THE EPB STANDARDS

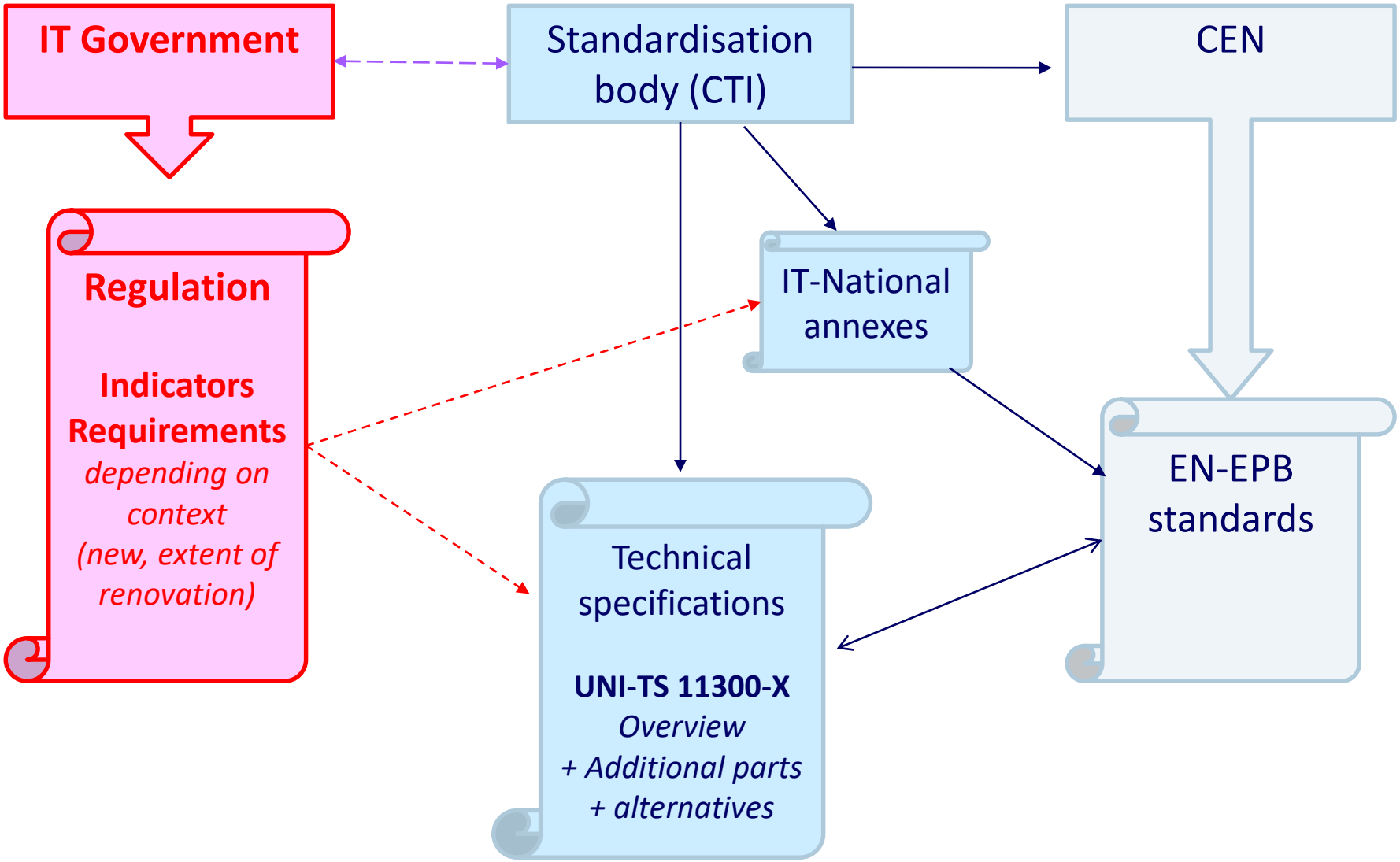
SAMPLE ITALIAN ANNEXES TO EN-EPB STANDARDS

Build-UP Webinar

4th of February 2020

Laurent Socal

Italian context



Status of these annexes

The draft IT annexes published on request of EPB-Center have been taken from a draft produced during the editing process of the application document for EN 52.XXX being developed in Italy.

It is not the final document and it is neither intended to represent the Italian position nor to give any preference and/or support to any option.

It only shows a possible approach on how prepare such national annexes.

The documents were released without any comment and/or rationale of the choices. Any comment and/or explanation added is not part of the original text.

52000-1 – Overarching – key choices

Key choices for legal compliance purpose
(building permit + use permit + EPC)

NA-x is the reference to the table in the National Annex

- NA-1. Step by step implementation
  - module references include both EN modules and national modules
- NA.6 - **Space categories with sub-categories**
  - It's not only administrative, this matters to specify operating conditions (easy for heating, ≈ 20°C everywhere, not for ventilation…)
- NA.10 + 18 – Which services included?
  - People transport
  - Lighting only non residential
- **NA.11 – Electricity use type**
  - IT: PV cannot be taken into account in the EP if used for direct electrical heating (joule effect). Taken into account only for auxiliaries, heat pumps or similar
  - Regulation specification
- NA.16 – Weighting factors according to regulation

52000-1 - Overarching – key choices

- **NA.17 – Kexp = 0** *(see video about exported energy on EPB center website)*
  - **No exported energy contribution to EP**
  - No compensation between PV and other energy carriers
  - Matching factor to catch PV really used for EPB purpose (monthly)
  - One reason is the grid overloaded by PV in some regions and some days
- NA.19 – Assumed presence of minimum systems for EPCs
  - Heating for all, domestic hot water for residential only
  - Use reference building properties → it is the minimum requirement if any installed
- NA.20 – Net floor area:
  - H and/or C with heigth > 1,50 m (relevant for comparison between countries)
- **NA.23+24 – Perimeter choice: includes all renewables in RER**
  - Distant included
  - Nearby if «traceable» (physical or contractual?)
  - **Relevant to reach RER = 0,5** (minimum overall for new buildings)

Some tables are just informative like NA.26

52010-1 – Climatic data

Key choices for legal compliance purpose
(building permit + use permit + EPC)

NA-x is the reference to the table in the National Annex

- NA.2. Weather station
  - Not compiled, there are > 100 refence locations + corrections

This is a very technical standard

Basically the current weather data-set and interpolation method is kept (UNI 10349).

52016-1 – Heating and Cooling needs

Key choices for legal compliance purpose
(building permit + use permit + EPC)

NA-x is the reference to the table in the National Annex

- NA-1. Step by step implementation:
  - **Nearly all referenced modules are EN modules**
  - National modules possible (discussion pending) only on operating conditions.
- NA.2 – Hourly versus monthly
  - Pending final decision
  - New regulation requires enquiry by ENEA and CTI
- NA.6 – temperature averaging in the conditioned area.
  - H and/or C defines the conditioned area
  - The set temperature applies to the whole thermal zone

52016-1 – Heating and Cooling needs

- **NA.10 – Nodes model for opaque elements**
  - **according to actual layers** (used for hygrothermal check as well)
  - **split thick layers**, based on Fourier number
  - default nodes model might be used for reference building *(still to be specified, maybe by regulation when adopting hourly)*
- NA.12 – Include internal partition walls
  - Heat capacity is relevant for dynamics
- NA.13 + NA.14 – Mass distribution
  - Not relevant because of NA.10

Tables have been filled also for monthly method since decision is still pending and both may be used

52018-1 – Partial energy performance indicators

Key choices for legal compliance purpose
(building permit + use permit + EPC)

NA-x is the reference to the table in the National Annex

NA.2 should be a grid defining

- for each type of building and context (column)
- the applicable requirements (one row per req. «X» if applicable

Table NA.2a — Choices with respect to the mix of partial EPB requirements related to thermal energy balance and fabric features (see Clause 6)

Application: New constructions						
Partial EPB feature	Requirement?				Exceptions*?	Details in
	Mix A	Mix B	Mix C	Mix D		
Summer thermal comfort	X	X	—	—	—	Table NA.3
Winter thermal comfort	—	X	X	—	—	Table NA.4
Energy "need" for heating: give further specifications*	X (1)	—	—	X (1)	—	Table NA.5
Energy "need" for cooling: give further specifications*	—	—	X (2)	X (2)	—	Table NA.6

NA.X (X>2) – Details on each requirement

52018-1 – Partial energy performance indicators

NA.2 there are two grids: one for residential, one for non-residential builldings

The grid and details are required because there are several possibile indicators on the building envelope form a lot of reasons (e.g. constraints when renovating)

This has been compiled as a list of ***potential*** partial performance indicators, rather than the ***required*** partial performance indicators.

Current IT legal requirements on new buildings include the following:

- Average transmittance of building envelope
- Summer effective solar area
- Heating and cooling needs
- Solar refectance of opaque elements
- Condensation check
- …

52003-1 – Global indicators for legal requirements

Key choices for legal compliance purpose
(building permit + use permit + EPC)

NA-x is the reference to the table in the National Annex

NA.2 This should indicate which indicator is used by the legal requirement.

The legal requirements in IT for new buildings are based on

- total primary energy
- RER (renewable energy ratio)

Non renewable primary energy is used as the indicator to determine the class in the EPC

CO_2 emission as well is only an indicator in the EPC

Global indicators for the involved service (H or C) are used as requirements also if more than 50% of envelope is renovated and the corresponding technical systems is replaced

52003-1 – Global indicators for legal requirements

This should be the correct filling of this table for IT context

Table A.2 — Default choices with respect to the overall EPB requirements (see 9.5)

Application: New and deep renovations (1st level)		
Overall energy performance feature	**Requirement?**	**Exceptions*?**
Total primary energy use	X	(1)
Non-renewable primary energy use		
Renewable primary energy use		
Renewable energy ratio	X	(1)
Greenhouse gas emissions: CO_2		
Energy policy factors (define*)		

And notes should be added below the table to explain

- that non-renewable primary energy is used for the EPC
- the exceptions and rules for the deep renovation case

52003-1 – Global indicators for legal requirements

NA.3 … just ask if using kWh or kWh/m² as the legal requirement

- Only specific use (kWh/m²) should be checked

NA.4 non renewable primary energy is not used as a requiremsnts but only as an indicator to determine the class.

- Only specific use (kWh/m²) should be checked

NA.5 RER is used as a requirement and should be checked

NA.6 Classes: G to A4, one refernce point

- Reference building for classes is not the same as for requirements (should be noted)

NA.7 Graphical representation is given in the regulation