

**Next Generation Energy Performance Certificates conference – EPBD
Recast Edition**

23rd May, 2024, Bruxelles

**Deep dive into Key Exploitable Result of EUB SuperHub:
CWA Harmonization of KPIs for supporting the next generation of
EPCs**

**Elena Mocchio – Head Innovation and development
Fabio Rossi – Technical Officer**

UNI – Ente Italiano di Normazione



- **Private non-profit association**, founded in 1921
- Recognized by Italian Legislative Decree No. 223/2017 for the adaptation of national legislation to the requirements of **Regulation (EU) No. 1025/2012** on European standardization and Directive (EU) 2015/1535 (information procedure)
- **Develops technical standards and reference best practices** in all sectors of the economy, for industry, commerce, services and society in general, excluding electrical and electrotechnical matters
- Participates in **European innovation and development projects**
- Represents Italy in **European and international standardization bodies**





■ CEN Members ■ CEN Affiliates ■ EU neighbouring countries



34 National Standardization bodies

- ~16672 European standards
- ~400 Active Technical Committees (CEN/TC)



The **Technical Barriers to Trade (TBT) Agreement** strongly encourages members to base their measures on **international standards** as a means to facilitate trade.

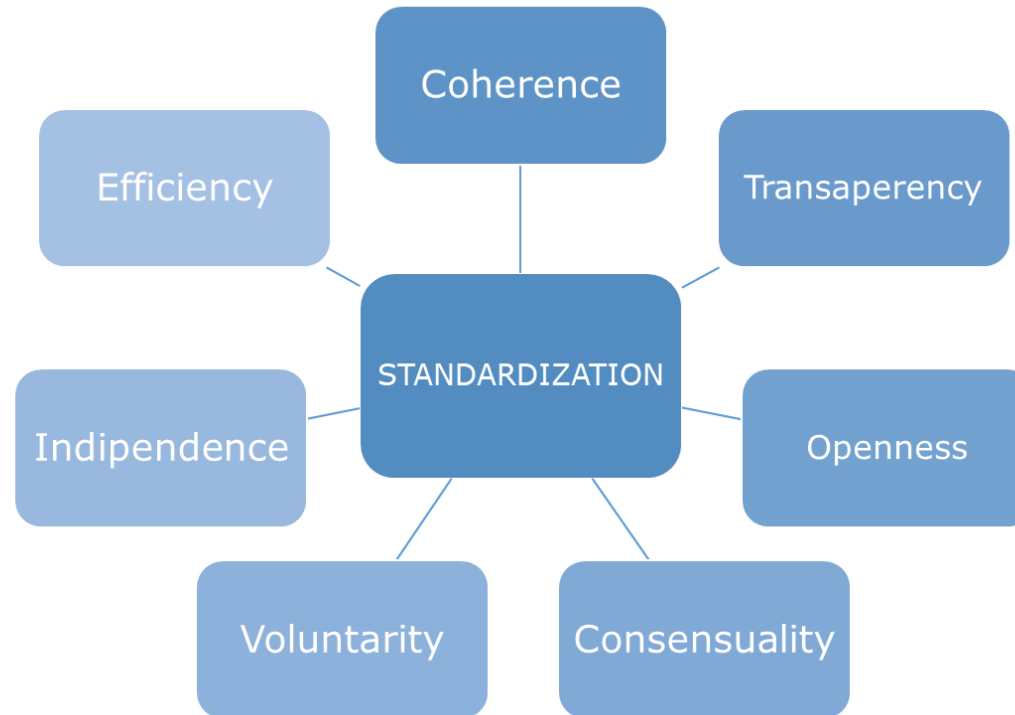
Principles for the Development of International Standards



Effectiveness and Relevance

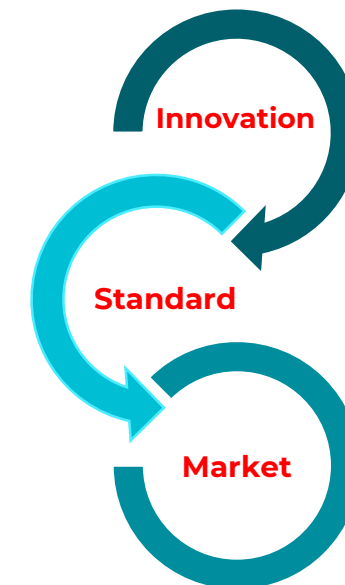
Impartiality

*Development Dimension
(for developing countries)*



Standards contribute to innovation

- *Interoperability between different technologies and systems.*
- *Access to information and knowledge sharing.*
- *Trust and security in the adoption of new technologies*
- *Scalability and cost reduction in large-scale implementation..*



*"The European Commission **encourages the use of standards in Horizon research projects and** recognizes their importance as a **tool to boost innovation** and competitiveness in the Union. The Commission also **promotes the involvement of standardization bodies** and the dissemination of results to promote innovation."*



"Guidance on the Use of Standardization for EU-funded Projects"



2. Why is it important to consider **standardisation** when drafting a proposal?

Standards play an important role in the valorisation of research & innovation results:

They help researchers bring their innovation to the market and spread technological advances by making their results transparent. In spreading the diffusion of new technologies, standards provide both economic opportunities, facilitate realisation of SDGs and give confidence to consumers that an innovative technology is safe.

They codify the technology requirements and inform both manufacturers and consumers on what to expect.

They allow technologies and materials to be interoperable: since a standard provides details on the use and content of a technology or a material, it is much easier to know when and how it can be used in combination with other technologies.

In other words, by codifying information on the state of the art of a particular technology, standards enable dissemination of knowledge (both within and outside the relevant industry community). Moreover, standards bridge the gap between research and products or services allowing the diffusion of the technology in the market and increasing the probabilities of its take-up. **Standardisation** facilitates the deployment of new technologies, interoperability between new products and services. Innovations can more easily gain market acceptance and consumer trust if they comply with existing standards for safety, quality, performance and sustainability.

If the project is relevant for **standardisation** it is advised for applicants to involve standard development organisations in the consortium in order to facilitate the valorisation of project results through **standardisation**.

EU Grants: HE Programme Guide: V4.0 – 15.10.2023



- a) Consider **existing standards** when proposing new activities and starting new projects, avoiding duplication and development of conflicting standards.
- b) Use the results of research and innovation activities to **improve** existing standards.
- c) **Anticipate and codify market needs** by sharing them with stakeholders in the innovation ecosystem.
- d) Consider standardization and standards as **a tool for disseminating and sharing the results** of research and innovation projects and activities.

STATE OF THE ART
ANALYSIS

STANDARDS UPDATE

TRANSFER OF R&I
RESULTS TO THE
MARKET

**PRE-STANDARDIZATION
ACTIVITIES (STRATEGIC
ROADMAP / CWA)**

LIAISON WITH CEN/ISO
TCs



EUB SuperHub Standardization Toolkit



EUB SuperHub

Standardization Toolkit

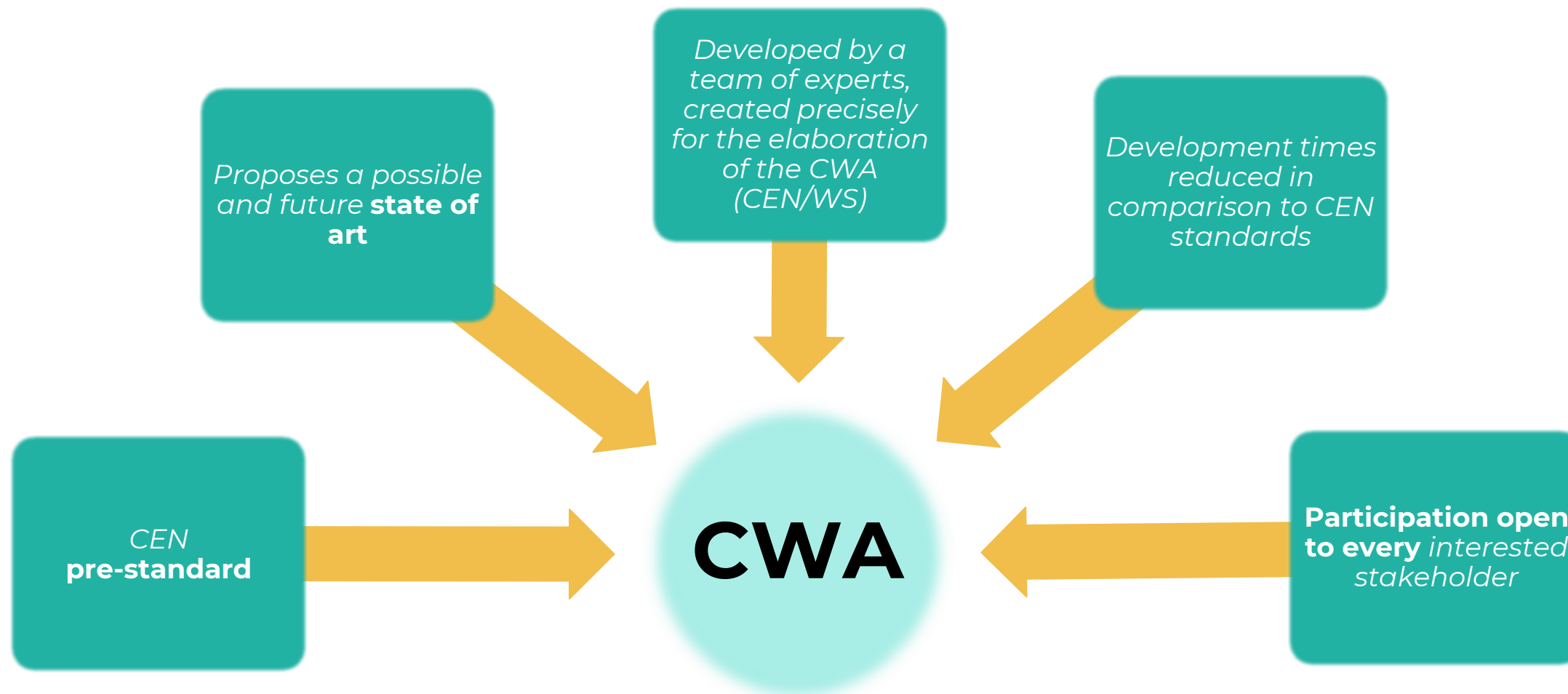
<p>HORIZONTAL ELEMENTS</p>	<p>LIFTS AND ESCALATORS</p>	<p>ROOFING ELEMENTS</p>	<p>BIM</p>	<p>STRUCTURES</p>
<p>BUILDING MATERIALS</p>	<p>PROFESSIONAL FIGURES IN C...</p>	<p>SUSTAINABLE CITIES</p>	<p>FIREFIGHTING</p>	<p>SYSTEMS</p>
<p>GENERAL PROCESSES</p>	<p>ACOUSTIC</p>	<p>VERTICAL ELEMENTS</p>	<p>SUSTAINABILITY</p>	<p>LIGHT AND LIGHTING</p>

Website link: [here](#)

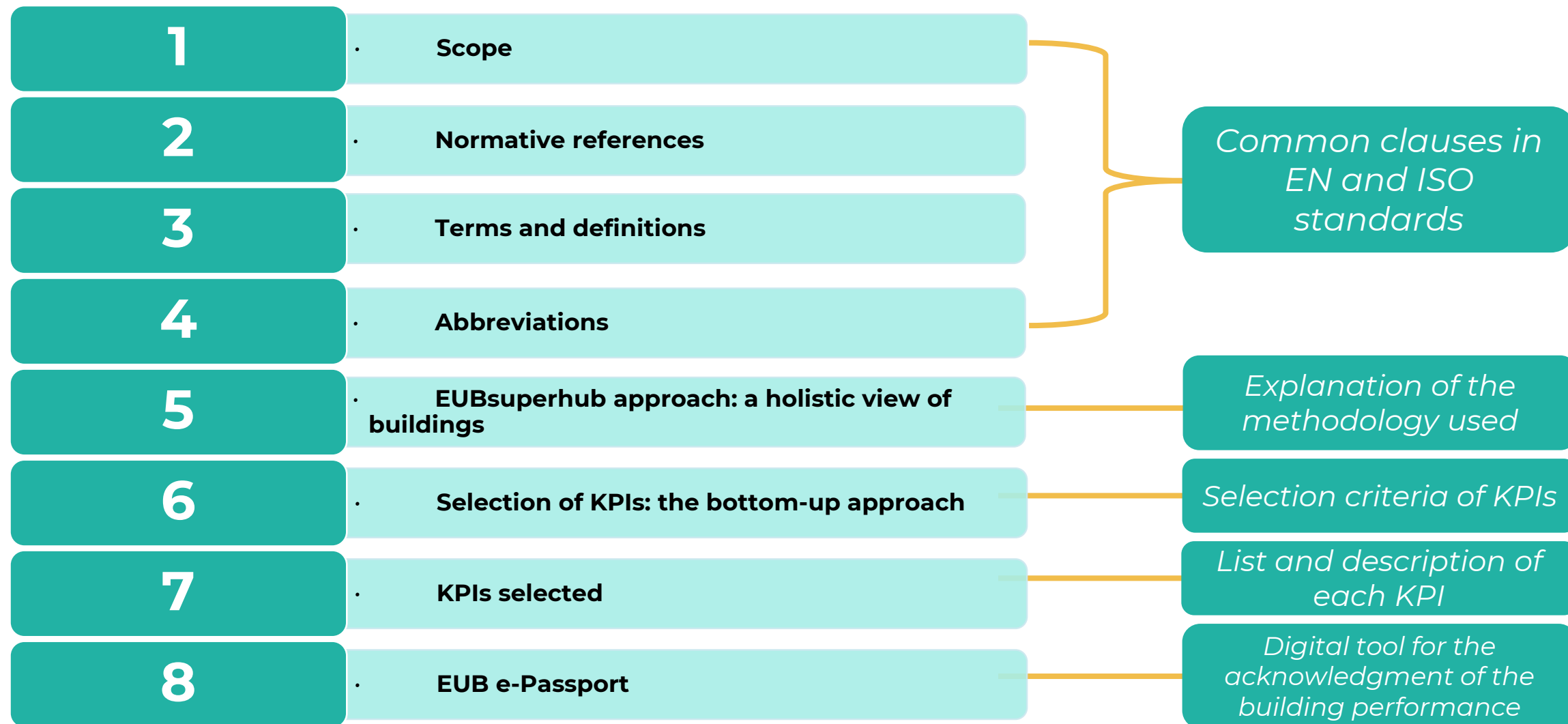


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CEN Workshop Agreement – What is it?



CWA EUB SuperHub – Structure (pt. 1)



Clause 7

'KPI selected'

7.3 – KPI Assessment Guideline

Name of the KPI

Description

Scope

System boundary

Unit of measurement

Applicability

Reference standards

Assessment method (step by step instructions)

Comparability of results

Data

Assessors and auditor' required competences



Thematic Area	KPI
Energy Consumption	1. Delivered annual energy per area unit
	2. Total annual primary energy use per area unit (self-used)
	3. Non-renewable annual primary energy use per area unit (self-used)
	4. Embodied energy
Renewable Energy	5. Renewable annual primary energy use per area unit (self-used)
	6. Renewable energy ratio (on-site, nearby)
Greenhouse Gas Emissions	7. Operational greenhouse gas emissions
	8. Life Cycle Global Warming Potential (GWP)

Thematic Area	KPI
Thermal comfort	9. Percentage of time outside of thermal comfort range
Indoor Air Quality	10. Ventilation rate
	11. CO ₂ concentration
	12. Relative Humidity
	13. Total VOCs
	14. CMR VOCs concentration
	15. R value
Costs	16. Formaldehyde concentration
Smart Buildings	17. Operational energy costs
Resilience to overheating	18. Smart Readiness Indicator
E-mobility	19. Summer thermal discomfort in 2050
	20. Percentage of recharging points and installed pre-cabling in relation to the number of parking spaces
Daylight sufficiency	21. Daylight Provision



Project timeline

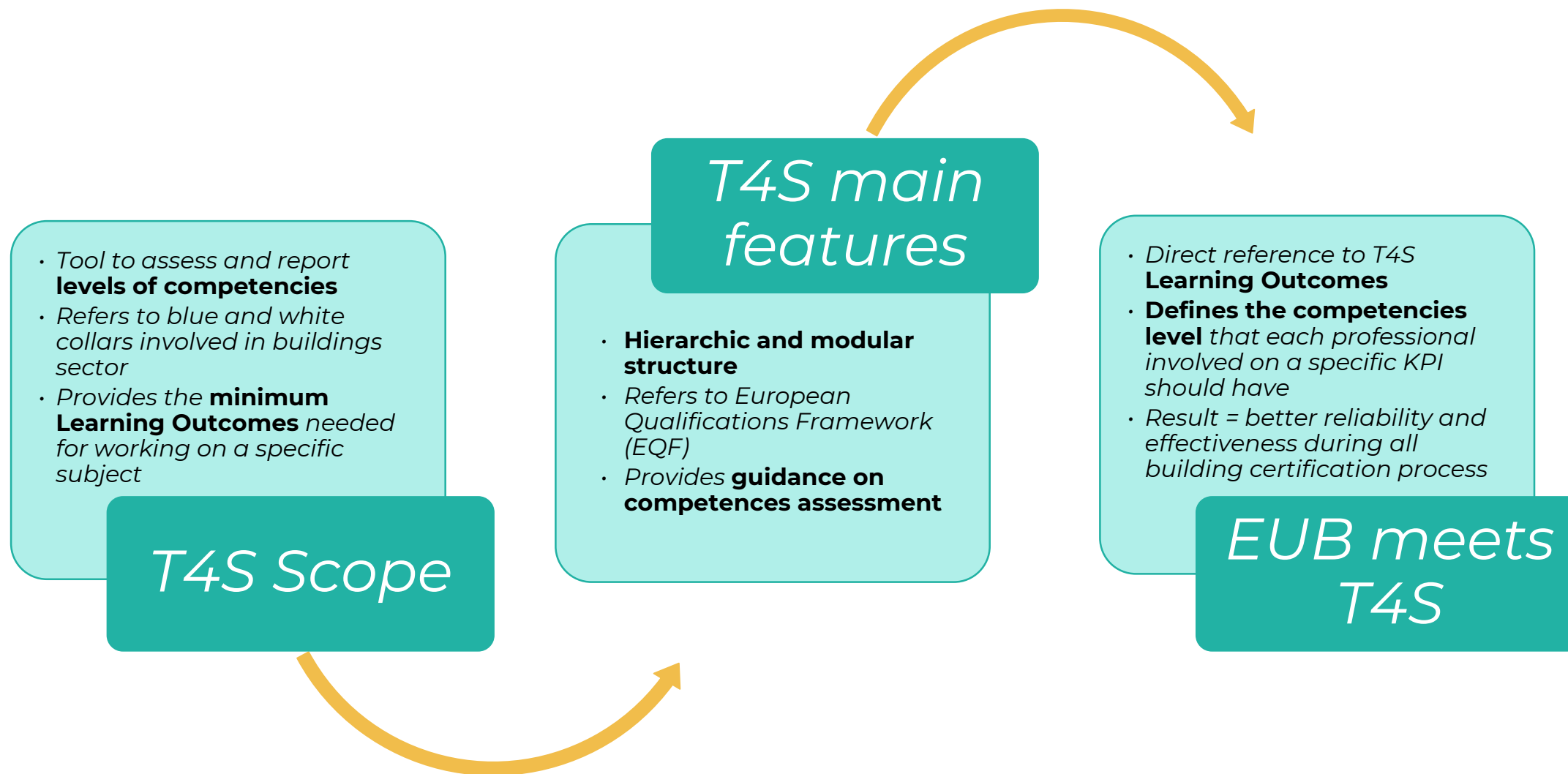


CEN Workshop Agreement – Why we need it?



An holistic and integrated approach
 =
Building considered as a whole with its technologic, economic and social issues

Assessors and auditor' required competences - The link with CWA 17939:2022 «Train4Sustain»



Thank you!

Elena Mocchio elena.mocchio@uni.com

Fabio Rossi fabio.rossi@uni.com

