



European Committee for Standardization  
Comité Européen de Normalisation  
Europäisches Komitee für Normung

# **CEN/TC 350 Sustainability of construction works**

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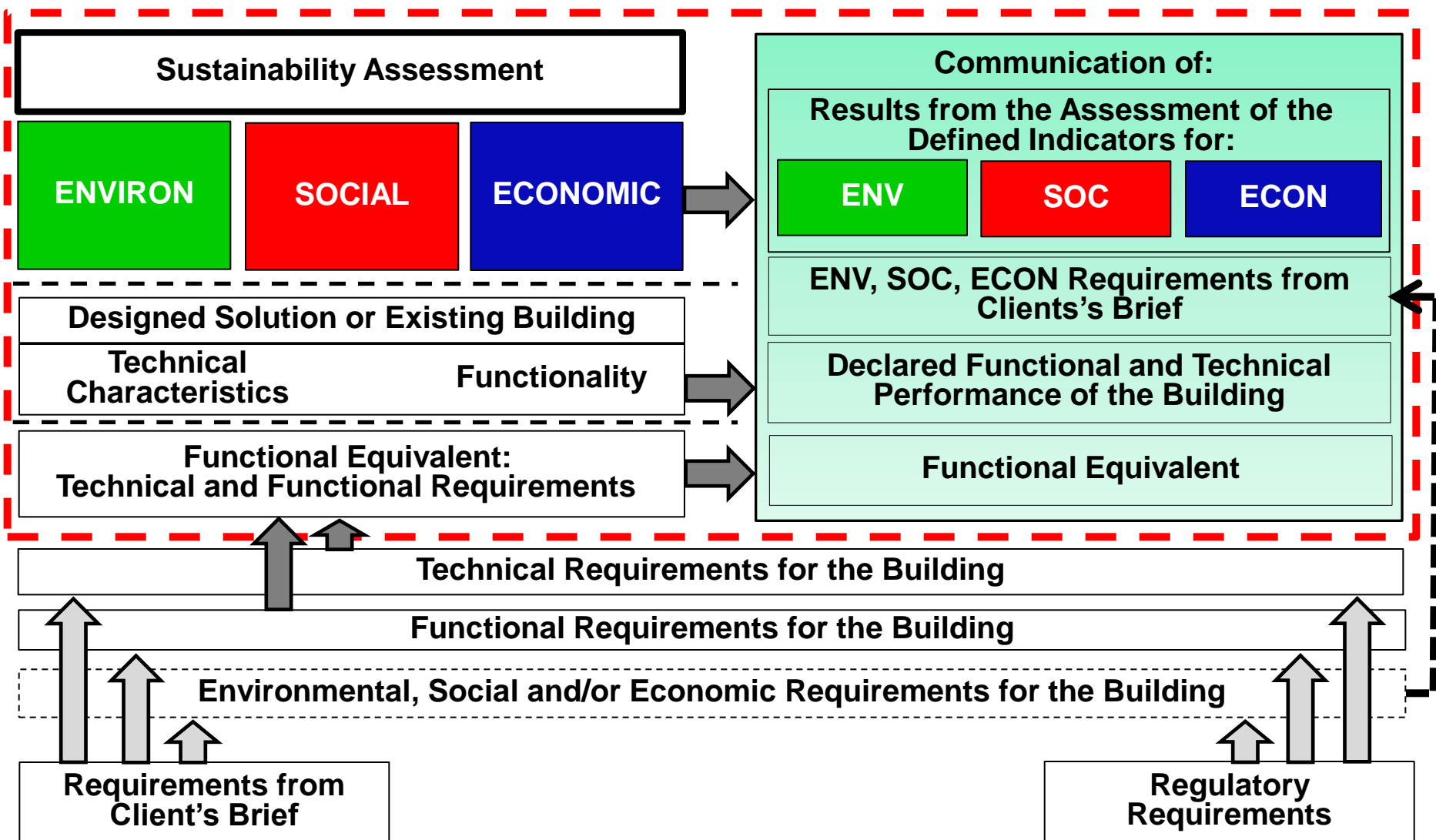
- **European standards for sustainability assessment with the PERFORMANCE BASED APPROACH in terms of:**
  - **Environmental performance (Mandate M/350)**
  - **Social performance**
  - **Economic performance**
- **Life cycle approach with the quantifiable indicators**
- **Development of CEN/TC350 standards has taken into account the needs of the relevant EU policies related to the Construction Products and buildings**
  - **Construction Products Regulation,**
  - **Eco-design, Public Procurement,**
  - **Resource Efficiency, Low Carbon Economy**
- **Original aim: prevention of potential technical trade barriers within the Internal Market and international market (in accordance with the international framework of ISO standards)**



# CEN/TC 350 – Sustainability of Construction Works

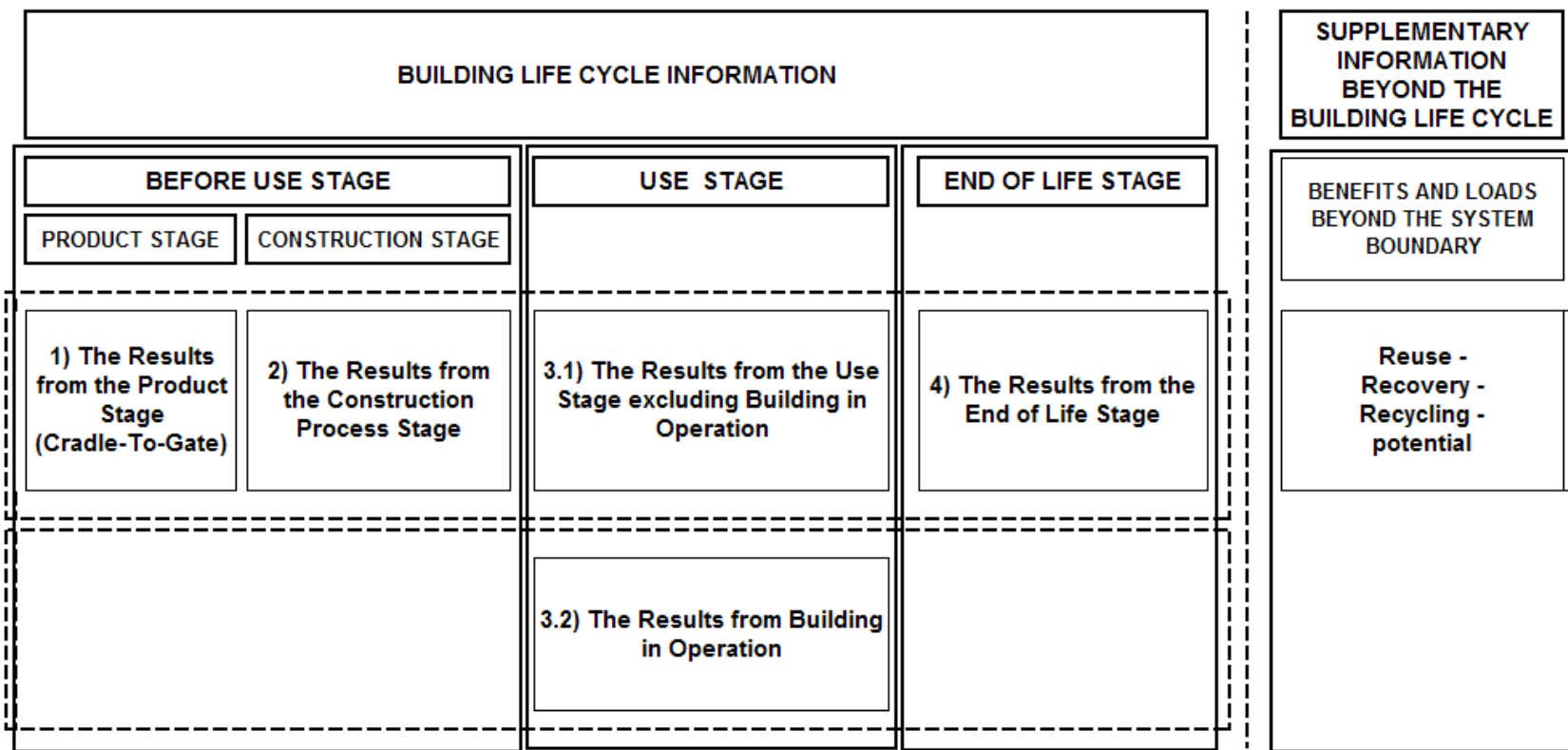
|                 |  |   |  |   |               |
|-----------------|--|---|--|---|---------------|
| Framework level | EN 15643-1 Sustainability Assessment of Buildings - General Framework (TG) |   |  |   |               |
|                 | EN 15643-2 Framework for Environmental Performance (TG)                    | EN 15643-3 Framework for Social Performance (WG5)   | EN 15643-4 Framework for Economic Performance (WG4)                          | Technical Characteristics   | Functionality |
|                 | Framework for Assessment of Environmental Performance (ISO 21931-1)        |   |  | Service Life Planning – General Principles (ISO 15686-1)  |               |
| Building level  | EN 15978 Assessment of Environmental Performance (WG1)                     | prEN 16309 Assessment of Social Performance (WG5)   | Assessment of Economic Performance (WG4)<br>Life Cycle Costing (ISO 15686-5) | CEN Standards on Energy Performance of Buildings Directive (EPBD)   |               |
| Product level   | EN 15804 Environmental Product Declarations (WG3)                          | (see Note below)  | (see Note below)   | Service Life Prediction (ISO 15686-2), Feedback from Practice (ISO 15686-7), Reference Service Life (ISO 15686-8) |               |
|                 | EPD of Build. Products (ISO 21930)   | <b>Note:</b> At present, technical information related to some aspects of social and economic performance are included under the provisions of EN 15804 to form part of EPD |  |   |               |
|                 | EN 15942 Comm. Form. B-to-B (WG3)  |   |  |   |               |
|                 | CEN/TC 350   |   |  |   |               |

# Concept of Sustainability Assessment





# Building life cycle and modular information = the same rules for the product and building level





# Standardized environmental indicators by CEN/TC350

## 1) Indicators for environmental impacts:

1. Global warming potential, GWP
2. Destruction of the stratospheric ozone layer
3. Acidification of land and water resources
4. Eutrophication
5. Formation of ground level ozone
6. Abiotic depletion potential (fossil fuels)
7. Abiotic depletion potential (elements)

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## 2) Indicators for use of resources:

8. Use of non-renewable primary energy
9. Use of renewable primary energy
10. Use of non-renewable primary energy resources used as raw materials
11. Use of renewable primary energy resources used as raw materials
12. Total use of non-renewable primary energy resources
13. Total use of renewable primary energy resources
14. Use of secondary materials
15. Use of non-renewable secondary fuels
16. Use of renewable secondary fuels
17. Net use of freshwater resources

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## 3) Indicators for other environmental information:

18. Components for re-use
19. Materials for recycling
20. Materials for energy recovery
21. Non-hazardous waste to disposal
22. Hazardous waste to disposal
23. Radioactive waste to disposal
24. Exported energy



## **Implementation of EN 15804 into product group specific PCR**

- **Follow strictly the horizontal rules defined in EN 15804**
- **CEN/TC88 is preparing the PCR for thermal insulation products according to EN 15804**
- **Intended uses (applications) should be based on the list to be included in the product standard according to CPR (more specific than the present intended uses: buildings, civil engineering works, building equipment & industrial installations; e.g. DIN 4108-10)**
- **Rules for development of use stage scenarios and determination of Reference Service Life**
- **Allocation procedures in the multi-output production and end of life processes, including end of life scenarios**
- **End of waste state, i.e. the border between Module C (waste processing) and Module D (recycling and recovery)**



## **Development of use stage scenarios and determination of Reference Service Life**

- **Rules for estimating the Reference Service Life (within the framework of ISO 15686 series) =>**
  - **Test standards in accordance with ISO 15686-2,**
  - **Feedback from practice in accordance with ISO 15686-7**
- **Description of a set of use conditions for the intended uses covered in the EPD**
- **Maintenance and repair scenarios for the use conditions and the Reference Service Life**
- **Reference Service Life(s) and the related scenarios**





# **Regulated demands for environmental information in EU and the Member States**

## **Construction products regulation (CPR)**

- Legal framework for the Internal Market of EU**
- Basic Requirements for Construction Works**
  - Includes “emissions of greenhouse gases” and “use of environmentally compatible raw and secondary materials” over the life cycle of the works**
  - But, is not setting any obligation to regulate**
- Common technical language for the products**
- Member States can set the requirements for performance of the building or demand for the product information**
- Manufacturers declare the essential characteristics of their products in the Declaration of Performance together with CE-marking**