

Webinar for verifiers

4 November 2019



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The Norwegian EPD Foundation



Background, webinar

- Previous years: Annual verifier seminars/workshops
- Advantage
 - Face to face meetings
 - Immediate dialogue
- Disadvantage
 - Many verifiers are not in Oslo or Norway → travel
 - Too long between each meeting
 - Does not cater to all needs (e.g. new verifiers vs experienced verifiers)



Webinars

- To make the information from the Technical Committee in EPD-Norway more accessible
- To provide an arena to meet and discuss
- To make each meeting more efficient
 - Specific topics
 - Shorter meetings
 - Online → no travel



First webinar

- Main purpose: Inform about the upcoming EN15804
- Secondary purposes
 - Test out webinar for providing information
 - Test out webinar for discussing
- Technicalities
 - Video meeting: Skype for business
 - Language: English



Technicalities

- First part: Presentation by TC
 - Questions in chat
- Second part: Discussion related to presentation
- Third part: Any other business (including themes for future webinars)



Feedback

- A doodle will be sent out after the webinar
 - What worked well?
 - What could/should be improved?
 - Which topics should future webinars focus on?

Amendment of EN 15804

- The European Commission (DG GROW and DG ENV) gave the official version of the amendment of mandate M/350 to CEN in order to align differences between PEF and EN 15804 in construction sector, and strengthen the position of EN 15804 within EU policies
- CEN/BT accepted the amendment of M/350, BTC 062/2017, 9 May 2017
- CEN/TC350 accepted the CEN response to the amendment of M/350, 19 July 2017
- Current status
 - Final version of EN15804 sent to vote this year
 - Approved. Final version should be published soon. Tentative publication was October 2019.
 - When published: 6 months transition period starts.



Consequences (1 of 3)

- For EPD-Norway
 - ECO Platform: Transition period of 6 months
 - Programme audits in 2020
 - Consequences for GPI must be evaluated
 - PCR Part A and Part B must be updated during the transition period → before transition period ends



Consequences (2 of 3)

- For EPD owners, developers and verifiers
 - Which version should be used?
 - Both versions will be applicable in the transition period
 - But: Verified EPD for old EN15804 must be published before transition period ends.
 - Caveat: PCR updating...
 - What are the transition periods?
 - Harmonisation: What are the key differences between EPDs following the two standards? → should be evaluated



Consequence (3 of 3)

2.1.10 Transition periods

An EPD must be developed in accordance with the requirements given in this GPI, and the requirements in relevant standards and in relevant PCRs. These normative documents are subject to periodic revision. Such revisions may lead to periods of overlap between an old and a revised version of a document and there may be gap periods after the expiry of a document before a revised version is published. EPD-Norge will on request provide information on transition periods. Significant transition periods will be published on www.epd-norge.no.

Transition period for PCRs from EPD-Norge that under revision.

As a general rule, unless the PCR is withdrawn by EPD-Norge, a published PCR is valid in the transition period and for 3 months after the revised version is published.



Main changes

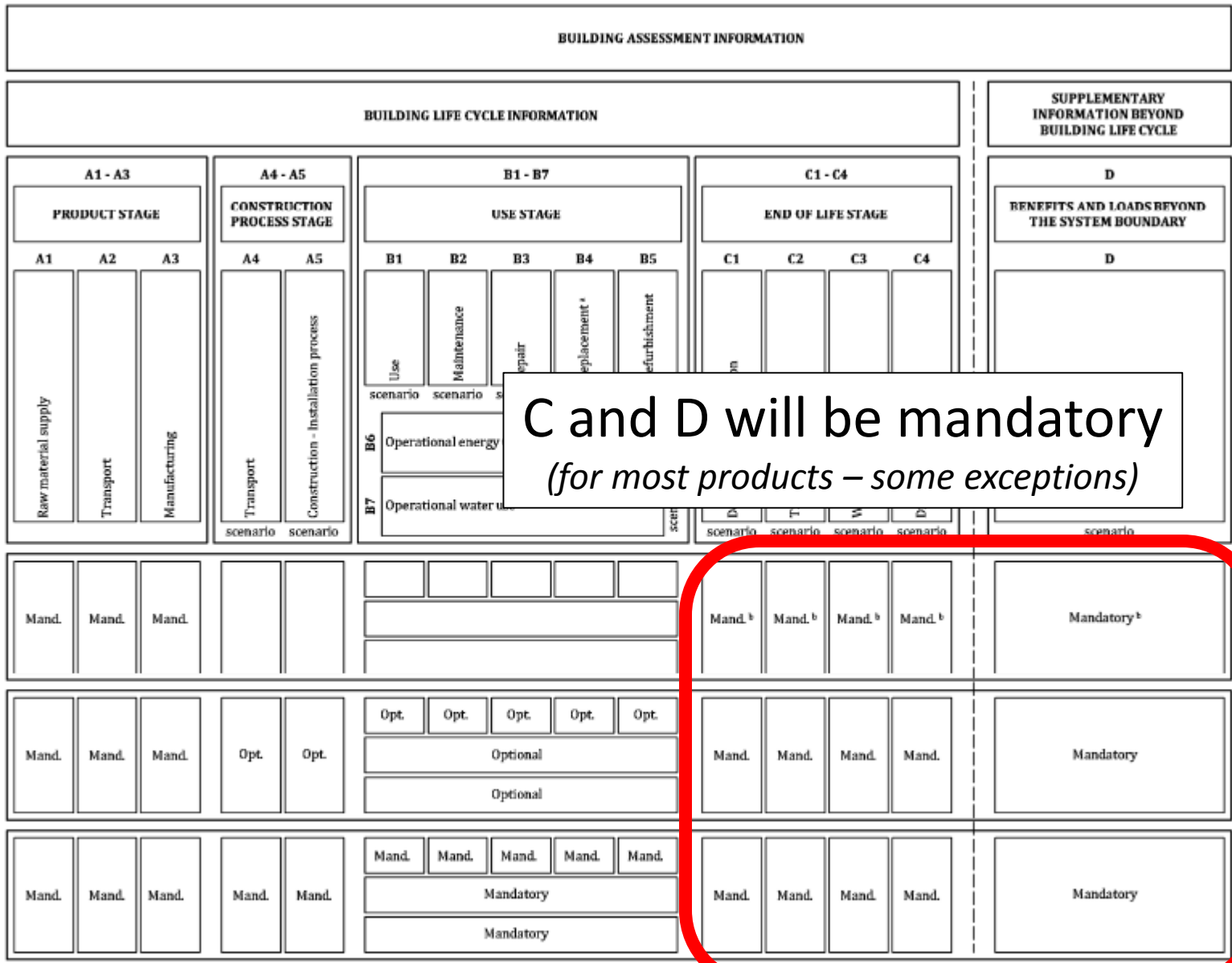
- Additional mandatory modules: C and D
- New guidance for calculating end of life
- New LCIA indicators
 - Those that are mandatory in EPD
 - Those that are mandatory in LCA report (e.g. tox) and voluntary in EPD
- Inventory data shall use the ILCD format

Modules



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C and D will be mandatory
(for most products – some exceptions)

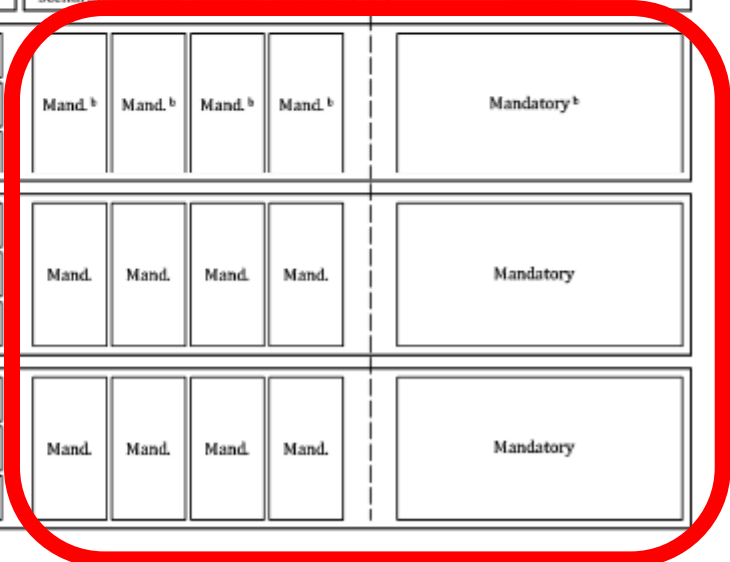
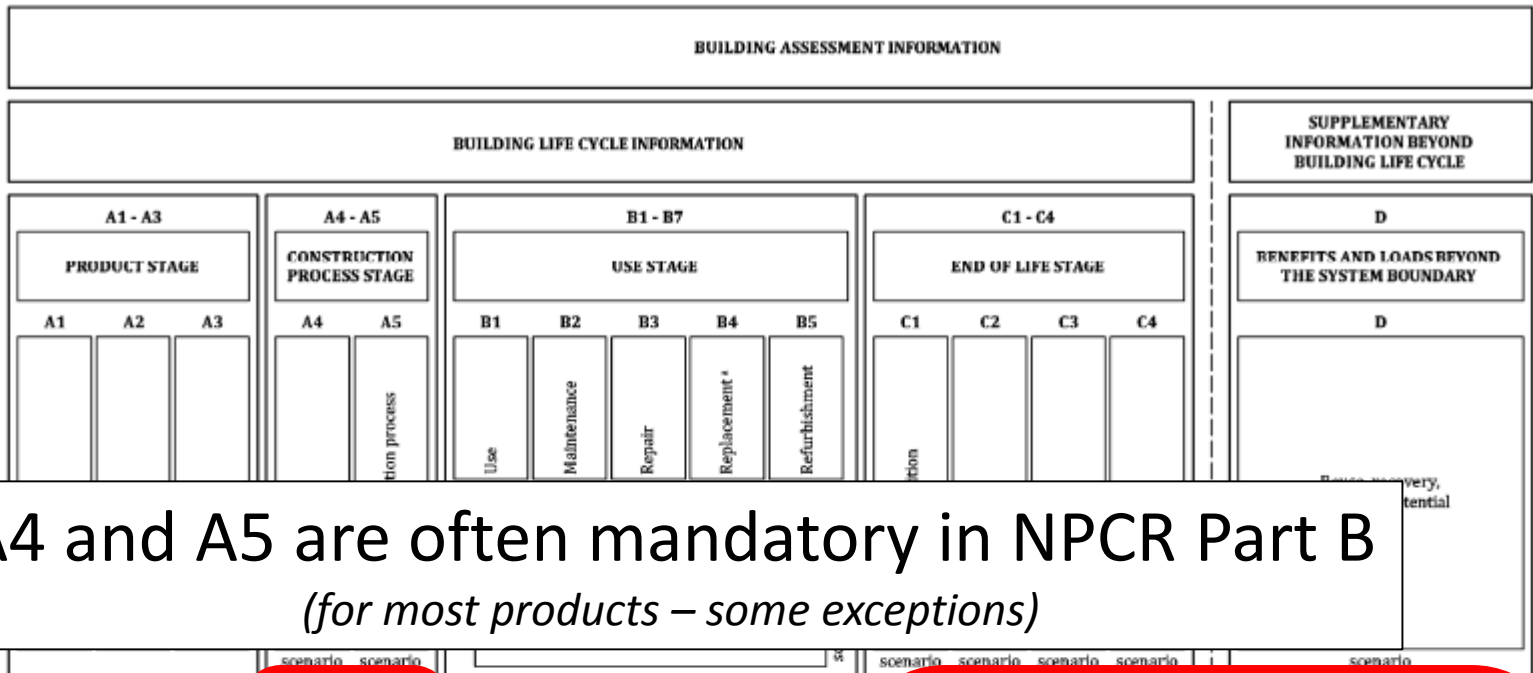


Figure 1 —Types of EPD with respect to life cycle stages covered and life cycle stages and modules for the building assessment





A4 and A5 are often mandatory in NPCR Part B
(for most products – some exceptions)

	scenario	scenario								scenario	scenario	scenario	scenario		scenario
Cradle to gate + modules C and D	Mand.	Mand.	Mand.							Mand. ^b	Mand. ^b	Mand. ^b	Mand. ^b		Mandatory ^b
Cradle to gate + modules C and D with options	Mand.	Mand.	Mand.	Opt.	Opt.	Opt.	Opt.	Opt.	Opt.						Mandatory
Cradle to grave	Mand.	Mand.	Mand.	Mand.	Mand.	Mand.	Mand.	Mand.	Mand.						Mandatory

Figure 1 —Types of EPD with respect to life cycle stages covered and life cycle stages and modules for the building assessment



Guidance on end of life



Annex D

(informative)

- End of life formulae
- Example, module D:

$$e_{\text{module D}} = e_{\text{module D1}} + e_{\text{module D2}} + e_{\text{module D3}} + e_{\text{module D4}}$$



Annex D

(informative)

- End of life formulae
- Example, module D:

Elementary flows
(emissions and resources)

$$e_{\text{module D}} = e_{\text{module D1}} + e_{\text{module D2}} + e_{\text{module D3}} + e_{\text{module D4}}$$



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- Example, module D:

Elementary flows
(emissions and resources)

$$e_{module D} = e_{module D1} + e_{module D2} + e_{module D3} + e_{module D4}$$

With:

$e_{module D1}$ being the loads and benefits related to the export of secondary materials

$$e_{module D1} = \sum_i (M_{MR\ out|i} - M_{MR\ in|i}) \cdot \left(E_{MR\ after\ EoW\ out|i} - E_{VMSub\ out|i} \cdot \frac{Q_{R\ out|i}}{Q_{Sub|i}} \right)$$



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D1, export of secondary materials.

Calculating emissions: Net amount of material * elementary flows

$MR\ after\ EoW\ out$ = recovery processes in subsequent system

$VM\ Sub\ out$ = substitute material in subsequent system

Q = value correction



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Net amount out

$$e_{\text{module D1}} = \sum_i (M_{MR \text{ out} | i} - M_{MR \text{ in} | i}) \cdot \left(E_{MR \text{ after EoW out} | i} - E_{VMSub \text{ out} | i} \cdot \frac{Q_{R \text{ out} | i}}{Q_{Sub | i}} \right)$$

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Net amount out

Adding:
Processing in
next system

$$e_{module D1} = \sum_i (M_{MR\ out|i} - M_{MR\ in|i}) \cdot \left(E_{MR\ after\ EoW\ out|i} - E_{VMSub\ out|i} \cdot \frac{Q_{R\ out|i}}{Q_{Sub|i}} \right)$$

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Net amount out

Subtracting:
Material being substituted

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Subtracting:
Value
correction

New indicators, mandatory

Impact Category	Indicator	Unit (expressed per functional unit or per declared unit)
Depletion of abiotic resources-mineral elements	Abiotic depletion potential (ADP-elements) for non-fossil resources ^a	kg Sb eq.
Depletion of abiotic resources-fossil fuels	Abiotic depletion potential (ADP-fossil fuels) for fossil resources ^a	MJ, net calorific value
Acidification	Accumulated Exceedance, Acidification potential AP	mol H ⁺ eq.
Ozone Depletion	Depletion potential of the stratospheric ozone layer, ODP	kg CFC 11 eq.
Global Warming total ^b	Global warming potential, GWP	kg CO ₂ eq.
GWP from fossil carbon emissions and removals	GWP fossil	kg CO ₂ eq.
GWP from biogenic carbon emissions and removals	GWP biogenic	kg CO ₂ eq.
GWP from land use and land use transformation emissions and removals	GWP land use and land use transformation	kg CO ₂ eq.
Eutrophication terrestrial	Accumulated Exceedance, Eutrophication potential, EP terrestrial	mol N eq.
Eutrophication aquatic freshwater	Fraction of nutrients reaching freshwater end compartment Eutrophication potential, EP freshwater	kg PO ₄ eq.
Eutrophication aquatic marine	Fraction of nutrients reaching freshwater end compartment Eutrophication potential, EP marine	kg N eq.
Photochemical ozone creation	Formation potential of tropospheric ozone, POCP;	kg Ethene eq.
Water scarcity ^c	User deprivation potential (deprivation-weighted water consumption)	m ³ world eq. deprived

^a The abiotic depletion potential is calculated and declared in two different indicators:

- ADP-elements: include all non-renewable, abiotic material resources (i.e. excepting fossil resources);
- ADP -fossil fuels include all fossil resources. If specific ADP fossil fuel values are known, these shall be used; any such use shall be stated.

^b The total global warming potential (GWP) is the sum of (see 7.2.3.2)

- GWP fossil and
- GWP biogenic
- GWP land use and land use change

^c It is permitted to omit GWP from land use and land use transformation emissions and removals as separate information if their contribution is < 5 % of GWP total



New indicators, cont.: Biogenic carbon

Indicator	Unit (expressed per functional unit or per declared unit)
Biogenic carbon (C) contained in bio-based materials used in the product system under study describing removals of greenhouse gas CO ₂ from the atmosphere	-kg C
Biogenic carbon (C) contained in bio-based materials used in the product system under study and released to the atmosphere	kg C
Transfer of biogenic carbon (C) contained in bio-based materials from a previous product system to the product system under study	-kg C
Transfer of biogenic carbon (C) contained in bio-based materials from the product system under study to the next product system	kg C
Biogenic carbon (C) contained in bio-based materials used in the product system under study and remaining in landfill after 100 years since deposition	kg C



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Transfer of biogenic carbon (C) contained in bio-based materials from the product system under study to the next product system	kg C
Biogenic carbon (C) contained in bio-based materials used in the product system under study and remaining in landfill after 100 years since deposition	kg C

Storage over 100 years: Not included in GWP calculation. Can be reported separately.

The effect of temporary carbon storage and delayed emissions, i.e. the discounting of emissions and removals over a defined timeframe of up to 100 years, shall not be included in the calculation of the GWP. The effect of permanent biogenic carbon storage shall also not be included in the calculation of the GWP. However, the effect of carbon storage and delayed emissions may be declared as additional information for GWP. Such information shall be declared together with a description of calculation methodology and sources.



New indicators, voluntary in EPD

Consequences for LCI: This is often not included in inventory collection.

Impact category	Indicator	Unit (expressed per functional unit or per declared unit)
Human toxicity, cancer effects	Potential Comparative Toxic Unit for humans	CTUh
Human toxicity, non-cancer effects	Potential Comparative Toxic Unit for humans	CTUh
Eco-toxicity (freshwater)	Potential Comparative Toxic Unit for ecosystems	CTUe
Land use related impacts/ Soil quality	Potential soil quality index	dimensionless
Particulate Matter emissions	Potential incidence of disease due to PM emissions	Incidence of disease
Ionizing radiation, human health	Potential Human exposure efficiency relative to U235	kBq U235 eq.



ILCD



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ILCD

6.3.8.2 Data quality requirements

In addition, the following specific requirements apply for construction products:

- The documentation format and data sets for the LC inventory data used in the LCA modelling shall use ILCD format and nomenclature;

- What does this mean in practice?

- Software

- SimaPro
 - GaBi
 - openLCA
 - etc.

- Databases

- ecoinvent
 - thinkstep
 - EPD
 - etc.

- Inventory practice

- Data collection
 - New LCIA indicators
 - etc.



Discussion related to EN15804



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General discussion



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Thank you!



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